



HQ H303140

**April 19, 2019**

**OT:RR:CTF:VS H303140 EE**

**CATEGORY:** Valuation

Derik L. Fausett  
KeyTronicEMS  
4424 N. Sullivan Rd.  
Spokane Valley, WA 99216

**RE:** Actuator assembly; Country of Origin Marking; Section 301 Measures

Dear Mr. Fausett:

This is in response to your correspondence, dated March 3, 2019, in which you request a ruling concerning the country of origin of a certain actuator assembly imported into the United States from Mexico. Your request, submitted as an electronic ruling request on January 29, 2019, was forwarded to this office from the National Commodity Specialist Division for review. Our ruling is set forth below.

**FACTS:**

Key Tronic Juarez<sup>1</sup>, a maquiladora located in Juarez, Mexico, manufactures the actuator assembly #9300-3050 for the Taco Zone Sentry valve. Key Tronic Corporation imports the actuator assembly into the United States, and subsequently sells it to TACO Comfort Solutions for final assembly, consumer packaging, and distribution. You state that the Taco Zone Sentry valves can be used in a wide variety of applications, specifically in heating systems and in chilled water systems where condensation is present. It is primarily used in baseboard, fan coils, radiators, convectors, air handlers, heat pumps and radiant applications.

The subject actuator assembly is classified under 8501.10.40, Harmonized Tariff Schedule of the United States (“HTSUS”), and consists of a plastic enclosure, a control

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<sup>1</sup> You state that Key Tronic Juarez is a wholly owned and operated subsidiary of Key Tronic Corporation, a Washington State Corporation.

printed circuit board assembly (PCBA), and an electric motor. The actuator is used to remotely operate valves by the application of electricity to the electric motor. The valve is not included in the assembly.

You submitted a bill of materials and photographs of the assembly process of the actuator assembly.

**ISSUE:**

What is the country of origin of the actuator assembly imported from Mexico for purposes of marking and for purposes of application of the Section 301 measures for goods under subheading 8501.10.40, HTSUS?

**LAW AND ANALYSIS:**

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin (or its container) imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit in such a manner as to indicate to an ultimate purchaser in the United States the English name of the country of origin of the article. The regulations implementing the requirements and exception to 19 U.S.C. § 1304 are set forth in Part 134, U.S. Customs and Border Protection Regulations (19 C.F.R. Part 134).

19 C.F.R. § 134.1(b) provides as follows:

“Country of origin” means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of this part; however, for a good of a NAFTA country, the NAFTA Marking Rules will determine the country of origin.

Since Mexico is a NAFTA country, the NAFTA Marking Rules must be applied in this case to determine the country of origin for purposes of marking.

19 C.F.R. § 102.11 sets forth the required hierarchy for determining whether a good is a good of a NAFTA country for marking purposes. 19 C.F.R. § 102.11(a) provides that the country of origin of a good is the country in which:

- (1) The good is wholly obtained or produced;
- (2) The good is produced exclusively from domestic materials;  
or

- (3) Each foreign material incorporated in that good undergoes an applicable change in tariff classification set out in § 102.20 and satisfies any other applicable requirements of that section, and all other applicable requirements of these rules are satisfied.

As previously noted, because the actuator assembly is processed in Mexico from non-originating materials, it is neither wholly obtained or produced (19 C.F.R. § 102.11(a)(1)), nor produced exclusively from domestic materials (19 C.F.R. § 102.11(a)(2)). Accordingly, 19 C.F.R. § 102.11(a)(3) is the applicable rule that must next be applied to determine the origin of the actuator assembly for marking purposes. “Foreign material” is defined in 19 C.F.R. § 102.1(e) as “a material whose country of origin as determined under these rules is not the same country as the country in which the good is produced.” In order to determine whether Mexico is the country of origin, we must look at those materials whose country of origin is other than Mexico. As previously noted, the actuator assembly is classified under subheading 8501.10.40, HTSUS. Pursuant to 19 C.F.R. § 102.20(n), the applicable tariff shift rule is as follows:

A change to heading 8501 from any other heading.

Since the electric motor from China is classified under heading 8501, HTSUS, the tariff shift rule is not satisfied. Because 19 C.F.R. § 102.11(a)(1)-(3) is not determinative of origin, the analysis continues to 19 C.F.R. § 102.11(b) which provides in pertinent part:

Except for a good that is specifically described in the Harmonized System as a set, or is classified as a set pursuant to General Rule of Interpretation 3, where the country of origin cannot be determined under paragraph (a) of this section:

- (1) The country of origin of the good is the country or countries of origin of the single material that imparts the essential character to the good, or...

When determining the essential character of a good under 19 C.F.R. § 102.11, 19 C.F.R. § 102.18(b) provides that only domestic and foreign materials that are classified in a tariff provision from which a change is not allowed shall be taken into consideration. In deciding among these materials, consideration is given to various factors, including the nature of the material such as its bulk, quantity, weight, or value, and the role of each material in relation to the use of the good. Based upon the above factors, we find that the electric motor is the single material that imparts the essential character to the actuator assembly. Therefore, the country of origin for purposes of marking of the actuator assembly is China.

The United States Trade Representative (“USTR”) has determined that an additional *ad valorem* duty of 25% will be imposed on certain Chinese imports pursuant to its authority under Section 301(b) of the Trade Act of 1974 (“Section 301 measures”).

The Section 301 measures apply to products of China enumerated in Section XXII, Chapter 99, Subchapter III, U.S. Note 20(b), HTSUS. Among the subheadings listed in U.S. Note 20(b) of Subchapter III, Chapter 99, HTSUS, is 8501.10.40, HTSUS.

In accordance with 19 C.F.R. § 102.0, the 102 marking rules are applicable for the limited purposes of: “country of origin marking; determining the rate of duty and staging category applicable to originating textile and apparel products as set out in Section 2 (Tariff Elimination) of Annex 300-B (Textile and Apparel Goods); and determining the rate of duty and staging category applicable to an originating good as set out in Annex 302.2 (Tariff Elimination)”. Therefore, when determining the country of origin for purposes of applying current trade remedies under Section 301<sup>2</sup>, the substantial transformation analysis is applicable. See Headquarters Ruling Letter (“HQ”) 563205, dated June 28, 2006. See also HQ H301619, dated November 6, 2018.

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade (“CIT”) interpreted the meaning of “substantial transformation.” *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the “name, character and use” test utilized in determining whether a substantial transformation has occurred and noted, citing *Uniroyal, Inc. v. United States*, 3 C.I.T. at 226, 542 F. Supp. at 1031, *aff’d*, 702 F.2d 1022 (Fed. Cir. 1983), that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, *aff’d*, 989 F.2d 1201 (Fed. Cir. 1993).

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a pre-determined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight.

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<sup>2</sup> See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (Jun. 20, 2018).

The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights under the government procurement provisions of the TAA.

In the instant case, a plastic enclosure, a PCBA and an electric motor from China are assembled into the actuator assembly in Mexico. The PCBA is assembled via a surface mount soldering method and it performs voltage and control functions for the motor. The Chinese origin electric motor is mounted within the plastic cover/housing along with the PCBA. The final assembly steps for the actuator involve testing and packaging for export to the US. The electric motor from China, which is a key component of the actuator assembly, has a pre-determined end-use and does not undergo a change in use due to the assembly process in Mexico. Based on the information provided, we find that the electric motor in China is not substantially transformed as a result of the assembly operations performed in Mexico.

As the assembly of the Chinese motor into an actuator assembly in Mexico does not result in a substantial transformation of the Chinese motor, the actuator assembly remains a product of China. Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent *ad valorem* rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.40, HTSUS, listed above.

**HOLDING:**

The country of origin of the actuator assembly for purposes of marking and for purposes of the application of subheading 9903.88.01, HTSUS, is China.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch

HQ H128416

February 9, 2017

**CLA-2 OT:RR:CTF:TCM H128416 GA**

**CATEGORY:** Classification

**TARIFF NO.:** 8443.32.1040

Mr. Tom Boivin  
Roland DGA Corporation  
15363 Barranca Parkway  
Irvine, CA 92618

RE: Modification of NY N004132; Classification of a wide format inkjet printer and a wide format inkjet printer/cutter from Japan

Dear Mr. Boivin:

This is in reference to New York Ruling Letter ("NY") N004132, dated December 29, 2006, issued to you concerning the tariff classification of a wide format inkjet printer and a wide format inkjet printer/cutter from Japan, under the Harmonized Tariff Schedule of the United States (HTSUS). In NY N004132, U.S. Customs and Border Protection (CBP) classified a 6 color inkjet printer and contour cutter, Model Number XC-540 in subheading 8477.80.00, HTSUS, which provides for, "Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter; parts thereof: Other machinery." CBP also classified a wide-format sublimation digital inkjet printer, Model Number FP-740 in subheading 8443.51.50, HTSUS, which provides for, "Printing machinery used for printing by means of printing type, blocks, plates, cylinders and other printing components of heading 8442; ink-jet printing machines, other than those of heading 8471; machines for uses ancillary to printing; parts thereof: Other printing machinery: Ink-jet printing machinery: Other." We have reviewed NY N004132 and find the portion that relates to the classification of the 6 color inkjet printer and contour cutter, Model XC-540 to be in error. The classification of the wide-format sublimation digital inkjet printer, Model Number FP-740, remains unmodified. For the reasons set forth below, we hereby modify NY N004132.

Pursuant to section 625(c)(1), Tariff Act of 1930 (19 U.S.C. 1625(c)(1), as amended by section 623 of Title VI, notice of the proposed action was published in the *Customs Bulletin* Vol. 49, No. 31, on August 5, 2015. No timely comments were received in response to this notice.

## **FACTS:**

In NY N004132, the subject merchandise was described as follows:

The 6 color inkjet printer and contour cutter, Model Number XC-540, is designed to produce outdoor graphics (banners, signs, vehicle graphics) that are UV and water resistant. Other applications include the production of labels, decals, apparel graphics, floor graphics, and packaging. The unit can print on and cut media such as vinyl, canvas, banner and backlit film up to 54 inches in width. It features a 64 nozzle piezo inkjet print head capable of printing resolutions up to 1440 dpi using solvent based inks. In addition, it has a swivel drag cutting blade for high speed precision contour cutting. In your letter, you indicate that the unit is principally used on plastic media. The unit is intended to be used in conjunction with a separate personal computer (not imported with the Model Number XC-540)

## **ISSUE:**

What is the proper classification of the inkjet printer/cutter?

## **LAW AND ANALYSIS:**

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The HTSUS headings under consideration are as follows:

- 8443      Printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof;
- 8477      Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter; parts thereof:

Note 3 to Section XVI, HTSUS, states, in pertinent part, the following:

3. Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

\* \* \* \*

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While not legally binding, the ENs provide a commentary on the scope of each heading of the HS and are thus useful in ascertaining the proper classification of merchandise. It is CBP's practice to follow, whenever possible, the terms of the ENs when interpreting the HTSUS. See T.D. 89-90, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The ENs to Section XVI, provide, in relevant part, as follows:

**(VI) MULTI-FUNCTION MACHINES  
AND COMPOSITE MACHINES**

(Section Note 3)

In general, multi-function machines are classified according to the principal function of the machine.

...

Composite machines consisting of two or more machines or appliances of different kinds, fitted together to form a whole, consecutively or simultaneously performing **separate** functions which are generally complementary and are described in different headings of Section XVI, are also classified according to the principal function of the composite machine.

...

For the purposes of the above provisions, machines of different kinds are taken to be **fitted together to form a whole** when incorporated one in the other or mounted one on the other, or mounted on a common base or frame or in a common housing.

\* \* \* \*

In your letter dated August 4, 2010, in response to our letter of April 21, 2010, requesting additional information, you addressed the questions concerning the principal function of the subject printer/cutter machine. As an initial matter, we note your admission that information provided to CBP by your former Director of Distribution concerning the principal function of the subject merchandise of ruling NY N004132 (an

earlier model inkjet printer with a contour cutter) was incorrect. You indicated that the error could have led CBP to classify the subject printer/cutter in subheading 8477.80.00, HTSUS. You now indicate that the criteria you use to determine the principal function are: (1) the design of the machine, (2) the application to which the end users put the machines, and (3) the cost of the printer/cutters compared to single function machines. You indicate that the principal function of the subject printer/cutter is "printing" and believe it should be classified under heading, 8443, HTSUS. Furthermore, you state that the subject printer/cutter is purposely intended to enable the user to print graphics on a variety of substrate material and once the printing is completed, to permit the cutting of the material into the final form.

Note 3 to Section XVI, HTSUS, directs that unless context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole are to be classified as if consisting only of that component or as being that machine which performs the principal function. As described above, the subject merchandise is used for printing by means of ink jets with the option to cut printed materials. As you indicated, the user may choose to use the printing machine to perform cutting functions. However, the cutting function is not necessary for the operation of the printing machine. The printing machine would not be used solely or primarily for cutting materials without printing.

CBP has found the analysis developed and utilized by the courts in relation to "principal use" (the "*Carborundum* factors") to be a useful aid in determining the principal function of such machines. Generally, the courts have provided several factors, which are indicative but not conclusive, to apply when determining whether merchandise falls within a particular class or kind. They include: (1) general physical characteristics; (2) expectation of the ultimate purchaser; (3) channels of trade, environment of sale (accompanying accessories, manner of advertisement and display); (4) use in the same manner as merchandise that defines the class; (5) economic practicality of so using the import; and (6) recognition in the trade of this use. See *United States v. Carborundum Co.*, 63 C.C.P.A. 98, 102, 536 F.2d 373, 377 (1976), cert. denied, 429 U.S. 979 (1976); *Lennox Collections v. United States*, 20 Ct. Int'l Trade 194, 196 (1996); *Kraft, Inc. v. United States*, 16 Ct. Int'l Trade 483, 489 (1992); and *G. Heileman Brewing Co. v. United States*, 14 Ct. Int'l Trade 614, 620 (1990). See also HQ W968223, dated January 12, 2007, and HQ 966270, dated June 3, 2003.

You listed a number of *Carborundum* factors in your submission including: general physical characteristics, expectation of the ultimate purchaser, channels of trade, environment of sale, the use in the same manner as merchandise which defines the class, economic practicality, and economic recognition in the trade of use of the printer/cutter machine. After examining the product literature and documentation you provided and considering the *Carborundum* factors, we agree that the principal function of the printer/cutter is for a user to print graphics on a variety of materials. As such, CBP concludes that the subject printer/cutter performs the principal function of printing

materials, and pursuant to Note 3 to Section XVI, HTSUS, the subject merchandise shall be classified as if consisting only of the printer. This finding is consistent with prior CBP rulings on similar merchandise. In NY N092737, dated February 4, 2010, various inkjet printers with a built-in contour cutter from Japan were classified as having the principal function of printing machines. See also NY N112997, dated July 16, 2010; NY N018032, dated October 19, 2007; NY N030139, dated June 26, 2008; and NY N044490, dated December 8, 2008.

Therefore, the printing machine is properly classified under heading 8443, HTSUS, as opposed to 8477, HTSUS.

**HOLDING:**

By application of GRI 1, we find the inkjet printer/cutter (Model XC-540) to be properly classified under heading 8443, HTSUS, specifically, in subheading 8443.32.10, HTSUS, which provides for "Printing machinery used for printing by means of plates, cylinders and other printing components of heading 8442; other printers, copying machines and facsimile machines, whether or not combined; parts and accessories thereof: Printing machinery used for printing by means plates, cylinders and other printing components of heading 8422: Other printers, copying machines and facsimile machines, whether or not combined: Other, capable of connecting to an automatic data processing machine or to a network: Printer units: Ink jet.." The duty rate is "Free."

Duty rates are provided for your convenience and subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at [www.usitc.gov](http://www.usitc.gov).

**EFFECT ON OTHER RULINGS:**

NY N004132, dated December 29, 2006, is hereby MODIFIED.

In accordance with 19 U.S.C. 1625(c), this ruling will become effective 60 days after publication in the *Customs Bulletin*.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H250768

December 2, 2016

**CLA-2 OT:RR:CTF:TCM H250768**

**CATEGORY:** Classification

**TARIFF NO.:** 8541.40.60

Port Director  
Charlotte Service Port  
1901 Crossbeam Drive  
Charlotte, NC 28217-2823

ATTN: Laurie Pazzo, Senior Import Specialist

**RE:** AFR of Protest No. 1512-13-100063; Classification of solar modules

Dear Port Director:

This is in response to the Application for Further Review (“AFR”) of Protest No. 1512-13-100063, dated January 9, 2013, filed on behalf of Canadian Solar USA, Inc. (Protestant”). The AFR concerns the tariff classification of solar modules under the Harmonized Tariff Schedule of the United States (“HTSUS”). This ruling incorporates and addresses arguments and facts put forth by Protestant in the AFR, as well as those arguments and facts presented in submissions and meetings that were received or occurred on May 14, 2014; August 11, 2015; September 15, 2015; January 8, 2016; February 4, 2016; February 11, 2016; March 7, 2016; April 13, 2016; June 7, 2016; and June 24, 2016.

**FACTS:**

The Protest describes three entries made on January 29, January 31 and April 13, 2013, and liquidated on June 21, 2013. On June 24, 2016, Protestant provided CBP with a representative sample of the subject module that is not an actual panel retained from the subject entries but, based on the information submitted, is identical in all respects to the panels associated with those entries. The sample consists of two detached junction boxes and one rectangular solar panel labeled, in part, “CanadianSolar, Model Type: CS6P-245P.” The panel measures approximately 1638

mm x 981 mm x 40 mm and is comprised of 60 (6x10) cells. Laboratory analysis of the solar panel indicates that there are three substrings serially connected. Each substring, which is connected in parallel to a diode, contains twenty photovoltaic (PV) cells (in two columns). The panel contains three diodes arranged in a junction box (attached to the rear of the panel) that are used as "bypass" diodes to protect shaded cells from overheating by diverting electrical current around such cells and through an external circuit. The connectors on the panels are designated as "MC4" or "MC4 compatible" and mechanically appear to be only able to connect solar panels with MC4 compatible connectors and not to connect such panels to any other external devices or structures. Below are images of the front and back of the solar panel:





## **ISSUES:**

Whether the solar module in question is classified (1) under heading 8501, HTSUS, as an electric motor and generator; or (2) under heading 8541, HTSUS, as a photosensitive semiconductor device

## **LAW AND ANALYSIS:**

We first note that the subject July 10, 2013, protest was timely filed within 180 days after the June 21, 2013, liquidations of the underlying entries. See 19 U.S.C. § 1514(c)(3). In addition, the AFR meets the criteria of 19 C.F.R. 174.24.

Classification under the HTSUS is made in accordance with the General Rules of Interpretation ("GRIs"). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the

remaining GRIs 2 through 6 may then be applied in order. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

In addition, in interpreting the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89 80, 54 Fed. Reg. 35127 (August 23, 1989). The 2013 HTSUS provisions under consideration are as follows:

- 8501**            Electric motors and generators (excluding generating sets) ...  
\* \* \*  
                Other DC motors; DC generators:  
\* \* \*  
**8501.31**        Of an output not exceeding 750 W:  
\* \* \*  
**8501.31.80**      Generators.  
\* \* \*  
**8541**            Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes; mounted piezoelectric crystals; parts thereof:  
\* \* \*  
**8541.40**        Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes:  
\* \* \*  
**8541.40.60**      Other diodes:  
\* \* \* \*

"Headings 8501 to 8504 do not apply to goods described in heading 8511, 8512, 8540, 8541 or 8542 ..." Note 2 to Chapter 85, HTSUS. EN 85.01 describes the coverage of heading 8501, HTSUS, (in pertinent part) as follows:

## (II) ELECTRIC GENERATORS

Machines that produce electrical power from various energy sources (mechanical, solar, etc.) are classified here, provided they are not more specifically covered by any other heading of the Nomenclature.

The heading also covers photovoltaic generators consisting of panels of photocells combined with other apparatus, e.g., storage batteries and electronic controls (voltage regulator, inverter, etc.) and panels or modules equipped with elements, however simple (for example, diodes to control the direction of the current), which supply the power directly to, for example, a motor, an electrolyser.

In these devices, electricity is produced by means of solar cells which convert solar energy directly into electricity (photovoltaic conversion).

The heading also excludes :

...  
(g) Solar cells whether or not assembled in modules or made up into panels but not equipped with elements, however simple, which supply the power directly to, for example, a motor, an electrolyser (heading 85.41).  
...

EN 85.41 describes the coverage of heading 8541, HTSUS, (in pertinent part) as follows:

### **(B) PHOTOSENSITIVE SEMICONDUCTOR DEVICES**

This group comprises photosensitive semiconductor devices in which the action of visible rays, infra-red rays or ultra-violet rays causes variations in resistivity or generates an electromotive force, by the internal photoelectric effect.

...

The main types of photosensitive semiconductor devices are:

...  
(2) Photovoltaic cells, which convert light directly into electrical energy without the need for an external source of current. Photovoltaic cells based on selenium are used mainly in luxmeters and exposure meters. Those based on silicon have a higher output and are used, in particular, in control and regulating equipment, for detecting light impulses, in communication systems using fibre optics, etc.

Special categories of photovoltaic cells are :

(i) Solar cells, silicon photovoltaic cells which convert sunlight directly into electric energy. They are usually used in groups as sources of electric power, e.g., in rockets or satellites employed in space research, for mountain rescue transmitters.

The heading also covers solar cells, whether or not assembled in modules or made up into panels. However the heading does not cover panels or modules equipped with elements, however simple, (for example, diodes to control the direction of the current), which supply the power directly to, for example, a motor, an electrolyser (heading 85.01).

...

Thus, per the ENs, panels or modules without elements that supply the power directly to an external load, are classified in heading 8541, HTSUS, and cannot be classified in heading 8501, HTSUS. Moreover, a solar module is not precluded from classification under heading 8541, HTSUS, simply because it contains "elements" (e.g., diodes which control the direction of the current). Those elements must also "supply power directly" to an external load, such as a motor or an electrolyser. See EN

85.41(B)(2)(i). See H084604, dated May 3, 2010 (revoking New York Ruling Letter ("NY") N047472, dated January 9, 2009) (modules that could only connect to other solar modules in order to create a single solar panel and could not connect to external devices or an electrical grid classified in subheading 8541.40.60); see also H255441, dated August 30, 2016.

The evidence before us shows that a junction box attached to the subject module contains MC4 compatible connectors and three bypass diodes. The bypass diodes protect solar cells within the modules from overheating when they are shaded, while the connectors connect the module to other modules in a series or in parallel, and do not connect the module to any other external devices or structures. Therefore, we find that the subject module is not equipped with an element that supplies power directly to an external load, and the module is a photosensitive semiconductor device described by heading 8541, HTSUS. Pursuant to Note 2 to Chapter 85, HTSUS, as the module is described by heading 8541, HTSUS, it is precluded from classification under heading 8501, HTSUS.

**HOLDING:**

The Protest is GRANTED. By application of GRI 1, the subject module is classified under heading 8541, HTSUS, specifically in subheading 8541.40.60, which provides for: "Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels ...: Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up in panels ...: Other diodes." The 2013, column one, general rate of duty is: Free.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Sixty days from the date of the decision, the Office International Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP Home Page at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H254022

May 22, 2017

**CLA-2 OT:RR:CTF:TCM H254022 ALS**

**CATEGORY:** Classification

**TARIFF NO.:** 8419.90.30

Port Director  
U.S. Customs and Border Protection  
6747 Engle Road  
Middleburg Heights, Ohio 44130

Attn.: Kimberly Williams, Import Specialist

**RE:** Application for Further Review Protest No. 4101-14-100159; Tariff classification of an Oil Cooler Core

Dear Port Director:

This letter is in reply to an Application for Further Review (“AFR”) of Protest number 4101-14-100159, filed on behalf of the importer, Allison Transmission, Inc. (also referred to herein as “Protestant”) on February 4, 2014. The Protest is against U.S. Customs and Border Protection’s (“CBP’s”) tariff classification of the above-referenced Oil Cooler Core under subheading 8708.99.8180 of the Harmonized Tariff Schedule of the United States (“HTSUS”).

**FACTS:**

The subject article is an oil cooler core. The Protestant describes the oil cooler core (also referred to herein as “OCC”) as being “made of stainless steel and [consisting] of a stack of seventeen hollow plates through which automatic transmission fluid flows horizontally. The core has one inlet and one outlet port that allows the [automatic transmission fluid] to flow in and out of the oil cooler core... The [OCC] is attached to the back (drive shaft) end of the transmission assembly.” The Protestant also describes the function of the oil cooler, on to which the OCC is mounted, as follows:

...to cool Automatic Transmission Fluid used in semi-trucks equipped with an Allison [Transmission, Inc.] transmission... In operation, hot [automatic transmission fluid] travels from the transmission to the oiler cooler and is run through the tubular system of the oil cooler core and heat is exchanged with the glycol based coolant as it transverses through the enclosed oil cooler housing.

The Protestant had entered numerous OCCs under several entries under subheading 8419.90.3000<sup>1</sup>, HTSUS, as other parts of the heat exchange units. CBP liquidated the entries over the course of several weeks, beginning October 11, 2013, under subheading 8708.99.8180, HTSUS, as other parts of motor vehicles of 8701 to 8705. Semi-trucks are motor vehicles of heading 8704. The Protestant asserts that the OCCs are properly classified under subheading 8419.90.3000.

#### **ISSUE:**

Is the Oil Cooler Core, as described above, properly classified under heading 8419, HTSUS, which provides for "Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof", or under heading 8708, HTSUS, which provides for "Parts and accessories of the motor vehicles of headings 8701 to 8705?"

#### **LAW AND ANALYSIS:**

Initially, we note that the Protest was timely filed on February 4, 2014, which is within 180 days of the earliest date of the liquidation among the subject entries, October 11, 2013. See 19 U.S.C. §1514(c)(3)(B). Additionally, CBP's classification of the merchandise is a protestable matter under 19 U.S.C. §1514(a)(2). Further Review of Protest No. 4101-14-100159 is properly accorded to the Protestant pursuant to 19 CFR 174.24(b).

Classification under the HTSUS is determined in accordance with the General Rules of Interpretation ("GRI") and, in the absence of special language or context which otherwise requires, by the Additional U.S. Rules of Interpretation ("ARI"). GRI 1 provides that the classification of goods shall be "determined according to the terms of the headings and any relative section or chapter notes." In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, GRIs 2 through 6 may be applied in order.

The following headings and subheadings of the HTSUS are under consideration in this case:

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<sup>1</sup> The subject entries were filed under the 2012 HTSUS-Supplement 1 (Revision 1) Edition for the entries filed in 2012, and under the 2013 HTSUS-Basic Edition for the entries filed in 2013. The HTSUS provisions at issue remained unchanged between the two HTSUS editions noted here.

8419 Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof:

Other machinery, plant or equipment:

8419.90 Parts:

8419.90.30 Of heat exchange units...

\* \* \*

8708 Parts and accessories of the motor vehicles of headings 8701 to 8705:

8708.99 Other:

8708.99.81 Other...

\* \* \* \* \* \* \* \* \*

Note 2(b) to Section XVI, HTSUS, of which heading 8419 is part, provides the following:

2. Subject to note 1 to this section, note 1 to chapter 84 and to note 1 to chapter 85, parts of machines (not being parts of the articles of heading 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

(b) Other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) are to be classified with the machines of that kind or in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate. However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517...

Note 2(e) to Section XVII, HTSUS, of which heading 8708 is a part, provides the following:<sup>2</sup>

2. The expressions "parts" and "parts and accessories" do not apply to the following articles, whether or not they are identifiable as for the goods of this section:

(e) Machines or apparatus of headings 8401 to 8479, or parts thereof; articles of heading 8481 or 8482 or, provided they constitute integral parts of engines or motors, articles of heading 8483...

Thus, the OCC is not classifiable as a part under Section XVII, and by extension heading 8708, if it is a part of a machine of headings 8401 to 8479. In this case, we must determine whether or not the OCC is a part of machinery of heading 8419.

The Protestant contends that the OCC is classifiable under heading 8419, HTSUS, because it is an "integral, constituent, or component part, without which the

<sup>2</sup> This refers to Note 2(e) to Section XVII, HTSUS, as published as of the dates of liquidation of the subject entries. We recognize that Note 2(e) to Section XVII has been modified as of January 1, 2017, but that modification does not apply to the subject entries as they were liquidated before the modification took effect.

article to which it is to be joined, could not function as such article," quoting United States v. Willoughby Camera Stores, Inc., 21 C.C.P.A. 322, 324 (1933), (aff'd Bauerhin Technologies Limited Partnership v. United States, 110 F.3d 774, 779 (Fed. Cir. 1997)). The Protestant argues that the OCC is dedicated for use with the complete oil cooler assembly and that it cannot perform its intended function in its imported state and without being installed as part of the oil cooler assembly.

Upon review of the Protestant's arguments and the information provided with its submission, we find that the subject OCC is an article that is principally used with machinery for the treatment of materials by a process involving a change in temperature. In this case, the material being treated is transmission fluid, and the material is being cooled. Because the instant merchandise is *prima facie* classifiable under heading 8419, HTSUS, its classification is resolved by operation of Note 2(b) to Section XVI, and it is therefore excluded from being classified under heading 8708 by application of Note 2(e) to Section XVII.

Thus, the Oil Cooler Core is properly classified under heading 8419, HTSUS, which provides for "Machinery, plant or laboratory equipment, whether or not electrically heated... for the treatment of materials by a process involving a change in temperature such as heating: Heat exchange units: Other." Specifically, the Oil Cooler Core is properly classified under subheading 8419.90.30, HTSUS, as "Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof: Other machinery, plant or equipment: Parts: Of heat exchange units..."

## **HOLDING:**

By application of GRI 1 and Note 2(b) to Section XVI, HTSUS, the Oil Cooler Core is properly classified under heading 8419, HTSUS, which provides for "Machinery, plant or laboratory equipment, whether or not electrically heated... for the treatment of materials by a process involving a change in temperature such as heating: Heat exchange units: Other." Specifically, the Oil Cooler Core is properly classified under subheading 8419.90.30, HTSUS, as "Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof: Other machinery, plant or equipment: Parts: Of heat exchange units..." The general column one rate of duty, for merchandise classified in this subheading is Free.

Duty rates are provided for your convenience and subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at [www.usitc.gov](http://www.usitc.gov).

The Protest should be GRANTED in accordance with the LAW AND ANALYSIS section above. A copy of this ruling should be attached to the CBP Form 19 or equivalent document and provided to the protestant as part of the notice of action on the protest.

Sixty days from the date of the decision the Office of International Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H255441

August 30, 2016

**CLA-2 OT:RR:CTF:TCM H255441 DSR**

**CATEGORY:** Classification

**TARIFF NOS.:** 8501.31.80

Port Director, Port of Charlotte  
1901 Crossbeam Drive  
Charlotte, NC 28217

Attn: Jeffrey Sorrells, Import Specialist

**RE:** Application for Further Review of Protest No. 1512-14-100030; classification of 1.5 watt solar battery charger, 13 watt briefcase solar charger, and portable household battery solar charger

Dear Port Director:

This is in response to Protest 1512-14-100030, dated April 14, 2014, filed by Central Purchasing, Inc. (Protestant), in response to your classification of a solar battery charger, briefcase solar charger, and portable household battery solar charger under the Harmonized Tariff Schedule of the United States (HTSUS). The devices were entered in 2012 and 2013, and liquidated between October 17, 2013 and March 2014. Protestant timely filed the protest on April 14, 2014.

**FACTS:**

The 1.5 watt solar battery charger (SKU 68692) is a retail package that is used to generate and supply 1.5 watts of electricity to an automobile's battery. The package contains a solar cell that converts sunlight into DC power. The item is designed to be mounted onto an automobile's windshield or dashboard. It can be plugged directly into an automobile's 12 V cigarette lighter port by way of the included cigarette lighter adapter or it can be connected directly to an automobile battery's terminals using the included battery clamp electrical cable. It is used to maintain the charge of said automobile battery.

The 13 watt briefcase solar charger (SKU 68750) is a retail package that is used used to generate and supply electricity to automobile batteries, and to various electronic devices and

accessories. The housing of the package is constructed in two halves with a hinge down its center that allows it to open and close like a briefcase would. Each half contains a solar cell that converts sunlight into DC power. The unit contains male and female cigarette lighter adapters, battery terminal clamps, a 12 volt accessory adapter and a battery shoe for cordless tools.

The portable household solar battery charger (SKU 68690) is a solar charger that is used to charge rechargeable household batteries (sizes AA, AAA, C, D and 9V). It is a complete unit that incorporates an amorphous solar cell on its front and various battery ports/slots on its rear. The device generates DC current from sunlight and uses that DC current to recharge drained batteries that are inserted into the charger and then removed for use.

## **ISSUES:**

Are the 1.5 watt solar battery charger, the 13 watt briefcase solar charger and the portable household solar battery charger classifiable under heading 8501, HTSUS, which provides for electric generators, or under heading 8541, HTSUS, which provides for photosensitive semiconductor devices?

## **LAW AND ANALYSIS:**

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (“GRIs”). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The HTSUS provisions under consideration are as follows:

8501            Electric motors and generators (excluding generating sets) ...

\*       \*       \*

8541            Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes; mounted piezoelectric crystals; parts thereof ....

\*       \*       \*

The Harmonized Commodity Description and Coding System Explanatory Notes (“ENs”) constitute the official interpretation of the HTSUS. While not legally binding or dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. *See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).* Legal Note 4 to Section XVI (which contains Chapter 85) states that:

Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.

Explanatory Note (“EN”) 85.01(II) describes two categories of items that are specifically included in heading 8501. HTSUS. To wit, the EN states:

## (II) ELECTRIC GENERATORS

Machines that produce electrical power from various energy sources (mechanical, solar, etc.) are classified here [in heading 8501], **provided** they are not more specifically covered by any other heading of the Nomenclature.

\*\*\* The heading also covers photovoltaic generators consisting of panels of photocells combined with other apparatus, e.g., storage batteries and electronic controls (voltage regulator, inverter, etc.) and panels or modules equipped with elements, however simple (for example, diodes to control the direction of the current), which supply the power directly to, for example, a motor, an electrolyser.

In these devices, electricity is produced by means of solar cells which convert solar energy directly into electricity (photovoltaic conversion).

EN 85.41 provides, in pertinent part:

## (B) PHOTOSENSITIVE SEMICONDUCTOR DEVICES

This group comprises photosensitive semiconductor devices in which the action of visible rays, infra-red rays or ultra-violet rays causes variations in resistivity or generates and electromotive force, by the internal photoelectric effect.

\*\*\* The main types of photosensitive semiconductor devices are:

\*\*\* (2) Photovoltaic cells, which convert light directly into electrical energy without the need for an external source of current. [...]

Special categories of photovoltaic cells are:

(i) Solar cells, silicon photovoltaic cells which convert sunlight directly into electric energy. They are usually used in groups such as source of electric power, e.g., in rockets or satellites employed in space research, for mountain rescue transmitters.

The heading also covers solar cells, whether or not assembled in modules or made into panels. However the heading does not cover panels or modules equipped with elements, however simple, (for example, diodes to control the direction of current), which supply the power directly to, for example, a motor, an electrolyser (heading 85.01).

Protestant asserts that Headquarters Ruling Letter (“HQ”) H084604, dated May 3, 2010 (revoking New York Ruling Letter (“NY”) N047472, dated January 9, 2009) controls this case because the device at issue in HQ H084604 lacked blocking diodes and inverters to convert DC power produced by the solar panels into AC power usable by items such as appliances. The role of a blocking diode is to prevent current that flows from a power supply from re-entering that power supply and the role of an inverter is to convert current from DC to AC. However, while a lack of blocking diodes or inverters may be indicative of a module being unable to supply power (or readily usable current in the case of inverters) to an external load, that fact alone is not determinative. What is determinative in such cases is whether or not the device under consideration consisting of panels of photocells is combined with other elements that can supply power directly to another device. The module in question in HQ H084604 could only connect to other solar modules in order to create a single solar panel and could not connect to external devices or an electrical grid. CBP explicitly noted the lack of such connectors in the underlying, and revoked, ruling New York Ruling Letter (NY) N047472 but that fact was not explicitly acknowledged in H084604. In addition, although CBP noted that “[t]he vast majority of applications require that the DC produced by the module be converted into alternating current (“AC”) by an inverter” and the module in question did not generate AC power, that fact is does not completely illuminate the delineation between headings 8501 and 8541, HTSUS. In any event, CBP correctly concluded that the module was classified in heading 8541 as a solar cell because it could not connect to an external load. Therefore, the pertinent facts of HQ H084604 are distinguishable from the facts at issue here.

The 1.5 watt solar battery charger (SKU 68692) is imported as a retail package that contains a solar cell, a cigarette lighter adapter and a battery clamp electrical cable. The solar cell component is classifiable either in heading 8501, HTSUS, as an electrical generator or in heading 8541, HTSUS, as a photovoltaic cell. The cigarette lighter adapter is classifiable in heading 8544, HTSUS, as an electric insulated conductor fitted with connectors. *See* NY A80143 (March 5, 1996) and NY N053435 (March 13, 2009) (both classifying vehicle cigarette lighter adapters in heading 8544, HTSUS). The battery clamp charging cable is classified in heading 8536, HTSUS, as electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuit, for a voltage not exceeding 1,000 V. *See* HQ 968094 and HQ 968095 (both dated April 21, 2006). As imported together, they meet the terms of Note 4 to Section XVI, HTSUS, as a combination of machines consisting of individual components intended to contribute together to a clearly defined function covered by a heading of Chapter 85, HTSUS (either acting as an electrical generator of heading 8501 or a photovoltaic cell of heading 8541). Hence, the 1.5 watt solar battery charger package is classifiable in either heading 8501 or heading 8541, HTSUS.

Heading 8501, HTSUS, provides for electric generators. EN 85.01(II) states that electric generators are “machines that produce electrical power from various energy sources (mechanical, solar, etc.).” The EN further states that “the heading also covers photovoltaic generators consisting of panels of photocells combined with other apparatus, e.g., storage batteries and electronic controls (voltage regulator, inverter, etc.) and panels or modules equipped with elements, however simple (for example, diodes to control the direction of the current), which supply the power directly to, for example, a motor, an electrolyser.” The 1.5 watt solar battery charger produces electrical power from its solar cell. It is equipped with a battery clamp charger cable and a cigarette light adapter that directly supplies power to an external vehicle battery. As such, the entire 1.5 watt solar battery charger functions as a generator described by heading 8501, HTSUS, and is classified there.

The briefcase solar charger (SKU 68750) is imported as a retail package containing two connected solar cells that fold upon each other, male and female cigarette lighter adapters, battery terminal clamps, a 12 volt accessory adapter and a battery shoe for cordless tools. The solar cells component is classifiable either in heading 8501, HTSUS, as an electrical generator or in heading 8541, HTSUS, as a photovoltaic cell. The male and female cigarette lighter adapters, the 12 volt accessory adapter, the battery terminal clamps and the battery shoe are all classifiable in headings other than headings 8501 or 8541, HTSUS. Similar to the 1.5 W solar charger considered *supra*, the role of the briefcase charger is to capture solar rays and convert those rays into electricity, and transmit that electricity to external devices. The cigarette lighter adapters, battery terminal clamps, accessory adapter and battery shoe merely provide the means to transmit that electricity to external devices. The entire briefcase solar charger functions as an electrical generator described by heading 8501, HTSUS, and is classified there.

The portable household solar battery charger (SKU 68690) is a solar battery charger that is used to charge rechargeable household batteries (sizes AA, AAA, C, D and 9V). It is a complete unit that incorporates an amorphous solar cell on its front and various battery ports/slots on its rear. The device generates DC current from sunlight and uses that DC current to recharge drained batteries that are inserted into the charger, charged and then removed for use. The device is wholly described by heading 8501, HTSUS, as an electrical generator consisting of a photovoltaic cell equipped with slots that allow it to supply solar-generated electricity directly to rechargeable batteries.

## **HOLDING:**

By application of GRI 1 and Note 4 to Section XVI, the 1.5 watt solar battery charger, 13 watt briefcase solar charger and portable household solar battery charger are classified as electrical generators under heading 8501, HTSUS. They are specifically provided for under subheading 8501.31.80, HTSUS, which provides for “Electric motors and generators (excluding generating sets): other DC motors; DC generators: of an output not exceeding 750W: generators...” The 2012 and 2013 column one, general rates of duty are 2.5% ad valorem.

You are instructed to DENY the protest. In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the protestant no later than 60 days

from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office International Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website located at [www.cbp.gov](http://www.cbp.gov) by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

**HQ H266154**

February 23, 2016

**CLA-2 OT:RR:CTF:TCM H266154 PJG**

**CATEGORY:** Classification; Marking

**TARIFF NO.:** 9023.00.00

Gene Mack, LCB  
110 E. Wilshire Avenue, Ste. G11  
Fullerton, CA 92832

**RE:** Tariff classification and country of origin for purposes of marking the Airbus A321 Door Trainer

Dear Mr. Mack:

This ruling is in response to your electronic ruling request dated June 8, 2015, filed on behalf of Spirit Airlines, Inc. ("Spirit") requesting a binding ruling on the tariff classification of the Airbus A321 Door Trainer under the Harmonized Tariff Schedule of the United States ("HTSUS"). You also requested a binding ruling on the country of origin for purposes of marking the Airbus A321 Door Trainer, and asked whether the Airbus A321 Door Trainer is eligible for duty-free treatment under a trade preference program. Your request has been forwarded by the National Commodity Specialist Division to this office for a reply.

**FACTS:**

The Airbus A321 Door Trainer represents one side of an aircraft fuselage. The fuselage is 22 feet in length by 8 feet 2 inches in width by 7 feet 10 inches in height, closed on the forward end and open on the aft (rear) end with two fully operational doors with computer controlled door malfunction capability. It will have three rows of passenger seats, one double and one single flight attendant seat, cabin and emergency lighting, closed-circuit television (CCTV), computerized sound reproduction, and deployable, retractable non-working oxygen masks.

The Airbus A321 Door Trainer will be manufactured in the United Arab Emirates (“UAE”) from various components. The manufacturing process for the A321 Door Trainer will involve some assembly operations. The following parts, with their respective countries of origin, will be used in the assembly operations: L1 Door and Frame (France); L3 Door and Frame (France); Overwing Exit Door and Frame (France); L1 and L3 Door Drives (Germany); Programmable Logic Controller (“PLC”) touch screens (Malaysia); PLC components (Malaysia); Electrical cables (USA); Electrical connectors (United Kingdom); Flooring panels (Italy); Base frame (UAE); and Door drive chains (United Kingdom). The remaining parts, with their respective countries of origin, are parts that will also be used to manufacture the A321 Door but will be subject to additional manufacturing such as cutting, forming, welding or machining operations: Handles jam assemblies (UAE); Base panels (UAE); Window panel (UAE); Passenger Service Unit (“PSU”) panels (UAE); Overhead Stowage Bins (“OHSB”) (UAE); Ceiling panels (UAE); Passenger seats (UAE) fitted with parts from USA and Germany; and Flight attendant seats (UAE) fitted with parts from USA and Germany. The Airbus A321 Door Trainer will be imported in one shipment, fully assembled.

The purpose of the Airbus A321 Door Trainer is to provide flight attendant training on door operations. The Airbus A321 Door Trainer will be capable of simulating all normal, abnormal, and emergency faults under the control of a trained instructor.

None of the components of the Airbus A321 Door Trainer, including the fuselage and doors, is certified as airworthy. They have been made or manufactured from composites and steel that are not suitable or certified to be used as aircraft parts.

## **ISSUES:**

- 1) Whether the Airbus A321 Door Trainer is classifiable in heading 9023, HTSUS, which provides for “Instruments, apparatus and models, designed for demonstrational purposes (for example, in education or exhibitions), unsuitable for other uses, and parts and accessories thereof”; and
- 2) Whether the country of origin for purposes of marking is the United Arab Emirates; and
- 3) Whether the Airbus A321 Door Trainer is eligible for duty-free treatment under a trade preference program.

## **LAW AND ANALYSIS:**

### **Classification of the Airbus A321 Door Trainer**

Classification under the Harmonized Tariff Schedule of the United States (“HTSUS”) is made in accordance with the General Rules of Interpretation (“GRI”). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative Section or Chapter Notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the

headings and legal notes do not otherwise require, the remaining GRIs may then be applied.

The 2016 HTSUS provision under consideration is as follows:

**9023** Instruments, apparatus and models, designed for demonstrational purposes (for example, in education or exhibitions), unsuitable for other uses, and parts and accessories thereof

The Harmonized Commodity Description and Coding System Explanatory Notes ("ENs") constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The EN to 90.23 states, in pertinent part:

This heading covers a wide range of instruments, apparatus and models designed for demonstrational purposes (e.g., in schools, lecture rooms, exhibitions) and unsuitable for other uses.

**Subject** to this proviso, the heading includes:

...

(4) Cross-sectional models of ships, locomotives, engines, etc., cut to show their internal operation or the functioning of an important part; . . .

Heading 9023, HTSUS, covers instruments, apparatus and models which are "designed for demonstrational purposes (for example, in education and exhibitions)" and are "unsuitable for other uses." The tariff term "demonstrational" is not defined by the HTSUS. "When...a tariff term is not defined in either the HTSUS or its legislative history", its correct meaning is its common or commercial meaning. See Rocknel Fastener, Inc. v. United States, 267 F.3d 1354, 1356 (Fed. Cir. 2001). "To ascertain the common meaning of a term, a court may consult 'dictionaries, scientific authorities, and other reliable information sources' and 'lexicographic and other materials.'" Id. at 1356-1357 (quoting C.J. Tower & Sons v. United States, 69 C.C.P.A. 128, 673 F.2d 1268, 1271 (CCPA 1982); Simod Am. Corp. v. United States, 872 F.2d 1572, 1576 (Fed. Cir. 1989)). The Oxford English Dictionary, 3d Ed. (2014), defines the word "demonstrate" as "[t]o point out or indicate (a person or thing); to present (information)."<sup>1</sup> Relying on the common meaning of the term, CBP has previously defined the term "demonstration" as "a description or explanation, as of a process, given with the help of specimens or by experiment." See Headquarters Ruling Letter (HQ) 957097, dated January 12, 2005 (citing The American College Dictionary (1970)).

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<sup>1</sup> OED Online. September 2015. Oxford University Press.

<http://www.oed.com/view/Entry/49840?rskey=F1hRbj&result=2&isAdvanced=false> (accessed October 16, 2015).

These definitions of “demonstrate” and “demonstration” indicate that a good designed for demonstrational purposes is a good which can be used to explain the use or operation of the good. In this case, the Airbus 321 Door Trainer has two fully operational doors with computer controlled door malfunction capability, and is capable of simulating all normal, abnormal, and emergency faults under the control of a trained instructor. As such, it can be used to explain functional door operations to the flight attendant. Thus, the Airbus 321 Door Trainer is “designed for demonstrational purposes” as required under heading 9023, HTSUS. According to the facts, it is also “unsuitable for other uses”.

Therefore, we find that the Airbus A321 Door Trainer is described by heading 9023, HTSUS, and subheading 9023.00.00, HTSUS, as “Instruments, apparatus and models, designed for demonstrational purposes (for example, in education or exhibitions), unsuitable for other uses, and parts and accessories thereof.” We note that merchandise classified under subheading 9023.00.00, HTSUS, is not eligible for duty-free treatment under a preference program.

### **Country of Origin for purposes of Marking the Airbus A321 Door Trainer**

In addition to your request for a binding ruling on the tariff classification of the Airbus A321 Door Trainer, you requested a binding ruling on its country of origin for purposes of marking. The marking statute, section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304(a)), provides that unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. Congressional intent in enacting 19 U.S.C. § 1304 was “that the ultimate purchaser should be able to know by an inspection of the marking on imported goods the country of which the goods is the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will.” United States v. Friedlaender & Co. Inc., 27 C.C.P.A. 297, 302 (1940).

Part 134, Customs and Border Protection (CBP) Regulations (19 C.F.R Part 134), implements the country of origin marking requirements and the exceptions of 19 U.S.C. § 1304. Section 134.1(b), CBP Regulations (19 C.F.R. § 134.1(b)), defines “country of origin” as:

[T]he country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of [19 C.F.R. part 134] ...

Since the U.S.-, French-, German-, Malaysian-, U.K.-, and Italian-origin parts are subjected to additional operations in the UAE, we must determine whether they undergo a substantial transformation.

A substantial transformation results when a new and different article emerges from the processing having a distinctive name, character or use. U.S. v. Gibson-Thomsen Co., Inc., 27 CCPA 269 (1940). If the manufacturing or combining process is merely a minor one which leaves the identity of the imported article intact, a substantial transformation has not occurred. Uniroyal, Inc. v. United States, 542 F. Supp. 1026 (CIT 1982), aff'd, 702 F.2d 1022 (Fed. Cir. 1983). Assembly operations which are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. In determining whether the combining of parts or materials constitutes a substantial transformation, the issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. Belcrest Linens v. United States, 573 F. Supp.1149 (CIT 1983), aff'd, 741 F.2d 1368 (Fed. Cir. 1984). See also C.S.D. 85-25.

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, the extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, or use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred; however, no one factor is determinative.

In the instant case, the extent of the assembly and manufacturing processes which are described in the "Installation Time Frame" found in Exhibit A of your request, indicate that the structural assembly, painting, mechanical assembly, and electrical installation, is extensive in nature and can take up to 2 months. We also note that nearly a month of product design and development is undertaken before the assembly and manufacturing processes begin. In addition, Exhibit A indicates that post-assembly inspections and electrical testing procedures can take up to 12 days. We conclude that the assembly and manufacturing processes that occur within the United Arab Emirates substantially transform the components of foreign origin into a product with a new name, character, and use. Accordingly, the country of origin of the Airbus A321 Door Trainer is the United Arab Emirates. The Airbus A321 Door Trainer is subject to the country of origin marking requirements of 19 U.S.C. §1304. The country of origin marking must meet the requirements of 19 CFR part 134.

#### **HOLDING:**

Under the authority of GRIs 1 and 6, the Airbus A321 Door Trainer is classified in heading 9023, HTSUS, specifically in subheading 9023.00.00, HTSUS, which provides

for "Instruments, apparatus and models, designed for demonstrational purposes (for example, in education or exhibitions), unsuitable for other uses, and parts and accessories thereof." Merchandise classified under subheading 9023.00.00, HTSUS, is not eligible for duty-free treatment under a preference program. The 2016 column one, general rate of duty is Free.

The country of origin for marking purposes is the United Arab Emirates. The Airbus A321 Door Trainer is subject to the country of origin marking requirements of 19 U.S.C. §1304. The country of origin marking must meet the requirements of 19 CFR part 134.

Duty rates are provided for convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Ieva K. O'Rourke, Chief  
Tariff Classification and Marking Branch

N292493

December 19, 2017

CLA-2-84:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8419.40.0080

H. Michael Leightman  
Ernst & Young LLP  
1401 McKinney Street Suite 1200  
Houston, Texas 77010

RE: The tariff classification of an ethane processing complex.

Dear Mr. Leightman:

In your letter dated November 29, 2017 on behalf of GCGV Asset Holding LLC you requested a tariff classification ruling. Literature was submitted with your request.

The subject merchandise is a complete ethane processing complex that will be constructed in a U.S. foreign trade zone (FTZ). It will consist of various interconnected units and subunits. The units include steam cracking furnaces, a Quench Tower, a Caustic Wash Tower, gas driers, a Deethanizer, an Acetylene Hydrogenation vessel, a DeMethanizer and a C2 splitter.

The principal function of the complex is to produce purified ethylene from an ethane feedstock. The purified ethylene is further processed in subunits, such as in the polyethylene module, which adjusts ethylene to a specific temperature and pressure to form polyethylene pellets and the mono-ethylene glycol module. Ethane that is cycled through the ethane processing complex and not transformed into purified ethylene is recycled through the units.

The applicable subheading for the ethane processing complex will be 8419.40.0080, Harmonized Tariff Schedule of the United States, HTSUS, which provides for Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof: Distilling or rectifying plant. The general rate of duty is Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

HQ H269185  
March 8, 2017

OT:RR:CTF:VS H269185 GaK

CATEGORY: Marking

Stuart P. Seidel  
Baker & McKenzie LLP  
815 Connecticut Ave. NW  
Washington, DC 20006

RE: Final Determination; Government Procurement; Country of Origin of data storage system;  
Substantial Transformation

Dear Mr. Seidel:

This is in response to a letter we received dated September 18, 2013, requesting a final determination on behalf of [\*\*\*\*\*] (“the Company”), pursuant to subpart B of Part 177 of the U.S. Customs and Border Protection Regulations (19 C.F.R. Part 177) and to two follow-up submissions dated January 6, 2014, and May 30, 2014. You also requested a country of origin marking decision. CBP also received notification on July 21, 2015 that the Company was acquired by another corporation and counsel for the Company was replaced. Under 19 C.F.R. Part 177, which implements Title III of the Trade Agreements Act of 1979 (TAA), as amended (19 U.S.C. § 2511 *et seq.*), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain “Buy American” restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

This final determination concerns the country of origin of three data storage products for government procurement. As a U.S. importer, the Company is a party-at-interest within the meaning of 19 C.F.R. § 177.22(d)(1) and is entitled to request this final determination. A meeting was held at our office on February 19, 2014.

In your letter, you requested confidential treatment for certain information contained in the file. Pursuant to 19 C.F.R. § 177.2(b)(7), the identified information has been bracketed and will be redacted in the public version of this final determination.

FACTS:

The Company is a data storage technology company headquartered in the United Kingdom with worldwide operations. The Company manufactures a variety of high performance enterprise data storage products that are used for the storage of electronic data onto physical disc drives. These products serve as the building blocks for medium to large corporations with a need to store and access large amounts of data securely and rapidly. Physically, the products operate in large server rooms or similar facilities, managed by trained professional information technology staff.

Three products are the subject of this ruling and they all apply the Integrated Storage Test Platform (“ISTP”). ISTP is a highly proprietary, Linux-based global hardware and software solution representing approximately 100 man-years of software development time over the past ten years and 6,500,000 lines of code, developed in the United Kingdom and the United States for the Company’s manufacturing processes. You state that ISTP is a critical element of the Company’s products. As discussed *infra*, the firmware for the three data storage products is developed and managed in the United Kingdom and a team of 19 United Kingdom-based software engineers manage ISTP. There are also software engineers at each production facility, including a Mexican facility at issue, that are trained by the United Kingdom-based engineers. ISTP-qualified engineers are located at the production site to provide input into the manufacturing and testing processes and all engineers have a high level of competence in “C” programming, test engineering, and the Company’s product knowledge. The ISTP undergoes approximately 40 updates a month incorporating customer requirements and design updates that directly affect the manufacturing process in Mexico.

Product One, the [\*\*\*\*\*] is a storage application platform delivering integrated storage and enterprise server system resources that tailor the amount of processing, memory, storage capacity, and high bandwidth input/output resources to meet customers’ requirements. While Product One can be configured based on customer requirements, it generally includes hard disc slots that can carry up to 24 hard disc drivers in drive carrier, server-grade Intel processor(s), memory chips, and seven Peripheral Component Interconnect Express (“PCIe”) input/output slots. It can accept both a base-level operating system and unique storage applications developed by Original Equipment Manufacturers (“OEM”). The chassis subassembly is imported from Malaysia; hard disc drives are imported from China, Singapore, or Thailand; and a power supply included in the chassis subassembly is imported from the Philippines. All of the components are imported into Mexico for assembly, firmware installation, inspection, and testing. The workers at the Mexican facility are stated to be highly trained and many positions require college/technical degrees, in addition to 1-7 years of experience.

The assembly process in Mexico starts with the chassis subassembly, which is a non-functioning unit that includes certain electronic components (*e.g.*, printed circuit board assemblies, a controller/central processing unit), but not the disc drives, firmware/software, or the ISTP configuration essential to the finished product. The assembly process takes approximately 135 minutes and is as follows:

1. The chassis subassembly is removed from the packaging, prepared for production, and inspected.
2. A SAP-trained employee generates labels to be applied to the subassembly to track the subassembly parts through the production.
3. The individual hard drives from China, Singapore, or Thailand, and drive carriers from Malaysia are assembled to create 24 disc drive assemblies. This process is conducted under stringent electrostatic discharge (“ESD”) controlled conditions and operators must use SAP to determine the assembly process. The installation of each hard drive into the drive carrier takes 12 steps.
4. The disc drive assemblies are installed into the chassis subassembly in a 15 step process, with SAP-generated labels.
5. The assembled chassis build undergoes first inspection, in an approximately 80-85 step process, which primarily focuses on the physical condition and the traceability of all the parts.
6. During the basic assurance test and functional test/firmware and software installation, the chassis build is connected to a custom test server to enable the correct configuration of the unit for customer use. Then, the updated software is loaded, including the specified level of firmware, vital product data, security data, and serialization information. The firmware is developed and managed by engineers in the United Kingdom.
7. A controlled environment reliability test is conducted to ensure that the chassis build can endure challenging physical environments (excessive heat or cold).
8. The Hipot test is conducted to verify that the chassis build is electrically safe, which confirms that the electric current used to run the unit is adequately shielded so that neither the operators nor the equipment are harmed by electrical shock and that all insulation is installed correctly.
9. Customer region-specific power cables, installation, and other customer-specific documentation are added.
10. Final inspection is performed.

Product Two, the [\*\*\*\*\*] is a combined storage and server platform on which OEMs can deploy their own data storage software as a storage solution to their end customers. The embedded servers have less memory, processing, and input/output capacity than Product One, but they are designed to provide OEMs with a high availability storage solution that can withstand a server failure. While Product Two can be configured based on customer requirements, it generally includes hard disc drive slots that can carry up to 24 hard disc drives in drive carriers, and two embedded server modules with a low-power server-grade Intel processor, memory chips, and one PCIe input/output slot. It can also accept both a case-level operating system and unique OEM applications. The assembly process is similar to the Product One assembly, in that it starts with the chassis subassembly, but does not include disc drive assemblies and has a different computing capacity. The assembly process takes approximately 76 minutes of labor time.

Product Three, the [\*\*\*\*\*], is also substantially similar to Product One, but it can incorporate up to 84 disc drives. Otherwise, the assembly in Mexico is substantially similar to that of Product One. The assembly process takes approximately 355 minutes of labor time.

During the Basic Assurance Test and Functional Test/Firmware and Software Installation process in all three products, the Company loads numerous firmware files onto the system (15 firmware files in Product One and Product Three, and 22 firmware files in Product Two). The specific firmware is said to confer customer specific operational functionality to the system and enable the components to work together. The disc drives are programmed with key codes in order to work with the customer application, and the Company states that the disc drives are not functional without this step. The drives are programmed to set up to 300 custom drive performance characteristics, such as timeouts, error thresholds, and data block size. The Company states that the post-assembly programming and testing enables the operation of each product and customizes it for its customers. The Company's programming process is driven and managed by the ISTP and is as follows:

1. Initialization and hardware validation is performed to ensure that all necessary physical components are present (disc drives, power units, batteries, motherboards, other printed circuit boards, etc).
2. Canister master/slave validation is performed to ensure that the “master” canister (controller) is properly communicating with the other canisters (the “slaves”).
3. Code load and validation are conducted in three phases to establish the customer-specific operating systems and application code: boot loader (loading code that establish initial functions required by the customer), enclosure configuration (ensuring that hardware is compatible with the software or application that will operate on the product), and virtual product data load and configuration (customizing the product instruction to be specific to the customer’s product).
4. Motherboard Ethernet branding ensures that the Ethernet ports operate correctly.
5. An SES element test is performed to ensure that sensors are present and communicating with the system.
6. Hard disc drive presence, code load, and validation is performed to ensure that all hard disc drives have been installed properly and are able to communicate with the system. The Company will load the customer’s firmware and establish the operational behavior of the drives.
7. A hard disc drive rotational vibration test is performed to ensure that the fan vibration does not affect the integrity of data sent to and received by the disc drives.
8. Hard disc drive performance, link speed, and status are verified to assess the response time between the drives and execute the instruction from the main processing unit.
9. Hard disc drive branding and validation is performed.
10. Fan speed test is conducted.
11. Voltage, battery, and temperature validation is performed.
12. Log analysis is conducted.

The Company also states that all three storage products are classified under subheading 8471.70 of the Harmonized Tariff Schedule of the United States (“HTSUS”). As reflected in the General Note (“GN”) 12(u)(6) of the HTSUS, the Company states that the goods are considered originating goods for purposes of the North American Free Trade Agreement (“NAFTA”) when imported into the United States from Mexico. The Company states that the major components imported into Mexico (chassis subassemblies, disc drives, drive carriers, drawer assemblies, etc.) are classified within the subheadings of 8471.60 and 8472.90, HTSUS.

ISSUES:

I. What is the country of origin of the three data storage products for purposes of U.S. Government procurement?

II. What is the proper country of origin marking under the NAFTA Marking Rules of the three storage products?

LAW AND ANALYSIS:

I. Country of Origin for Procurement Purposes

Pursuant to subpart B of Part 177, 19 CFR § 177.21 *et seq.*, which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511 *et seq.*), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain “Buy American” restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

Under the rule of origin set forth under 19 U.S.C. § 2518(4)(B):

An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

*See also* 19 C.F.R. § 177.22(a).

In *Data General v. United States*, 4 Ct. Int’l Trade 182 (1982), the court determined that for purposes of determining eligibility under item 807.00, Tariff Schedules of the U.S. (predecessor to subheading 9802.00.80, HTSUS), the programming of a foreign PROM (Programmable Read-Only Memory chip) in the United States substantially transformed the PROM into a U.S. article. In programming the imported PROMs, the U.S. engineers systematically caused various distinct electronic interconnections to be formed within each

integrated circuit. The programming bestowed upon each circuit its electronic function, that is, its “memory” which could be retrieved. A distinct physical change was effected in the PROM by the opening or closing of the fuses, depending on the method of programming. This physical alteration, not visible to the naked eye, could be discerned by electronic testing of the PROM. The court noted that the programs were designed by a project engineer with many years of experience in “designing and building hardware.” While replicating the program pattern from a “master” PROM may be a quick one-step process, the development of the pattern and the production of the “master” PROM required much time and expertise. The court noted that it was undisputed that programming altered the character of a PROM. The essence of the article, its interconnections or stored memory, was established by programming. The court concluded that altering the non-functioning circuitry comprising a PROM through technological expertise in order to produce a functioning read only memory device, possessing a desired distinctive circuit pattern, was no less a "substantial transformation" than the manual interconnection of transistors, resistors and diodes upon a circuit board creating a similar pattern.

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 573 F. Supp. 1149 (Ct. Int'l Trade 1983), *aff'd*, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation.

In order to determine whether a substantial transformation occurs when components of various origins are assembled into complete products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

You argue that the country of origin of the three products is Mexico because the components imported into Mexico are substantially transformed as a result of the Mexican assembly operations, as described *infra*, downloading of the software, programming and customization of the software and firmware, and extensive testing of the data storage products.

In Headquarters Ruling Letter (“HQ”) H082476, dated May 11, 2010, and in New York Ruling Letter (“NY”) N083979 dated December 3, 2009, the United States was determined to be the country of origin of ICS clustered storage units, when foreign components were assembled into the units and programmed in the United States. In HQ H025023 dated April 1, 2008, CBP determined that the Czech Republic was the country of origin of a fabric switch that was assembled to completion and programmed in that country. *See also* HQ H089762, dated June 2, 2010 (GTX Mobile and Handheld Computer); and HQ H090115, dated August 2, 2010 (Unified

Communications Solution). In HQ H125975 dated January 19, 2011, CBP considered a similar scenario to the one here. In HQ H125975, all of the components were assembled into the data storage system in Mexico and the previously programmed controller assembly was downloaded with software, which was stated to impart the functional intelligence to the system to allow for storage management, performance monitoring and access control. In HQ H125975, CBP found that the major operating hardware components were the controller assembly and the hard drives set, which were of Thai origin. However, the assembly process in Mexico involved multiple countries of origin with development and programming also occurring in two different countries. CBP concluded that the imported components of various origins lost their individual identities and were substantially transformed into a new and different article, as a result of the assembly and programming operations that took place in Mexico.

In this case, there are also significant assembly operations of the data storage products occurring in Mexico. Similar to HQ H125975, we have various countries involved: chassis assembly from Malaysia; power supply from the Philippines; software from the United Kingdom; hard disc drives from China, Singapore, or Thailand; and assembly in Mexico. Given the totality of the circumstances in this case, we find that Products One and Three are substantially transformed in Mexico mainly because of the assembly of the various components. However, we find that the origin of Product Two is Malaysia because it lacks the disc drive assemblies, which make up a significant part of the assembly process. For purposes of government procurement, Mexico is the country of origin for Products One and Three, and Malaysia is the country of origin for Product Two.

## II. NAFTA Marking

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or its container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. By enacting 19 U.S.C. § 1304, Congress intended to ensure “that the ultimate purchaser would be able to know by inspecting the marking on the imported goods the country of which the goods are the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will.” *United States v. Friedlaender & Co.*, 27 C.C.P.A. 297, 302 (1940).

Section 134.1 (b), CBP Regulations (19 C.F.R. § 134.1(b)), defines “country of origin” as “the country of manufacture, production or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the ‘country of origin’ within the meaning of this part; however, for a good of a NAFTA country, the NAFTA Marking Rules will determine the country of origin.”

The NAFTA Marking Rules require the application of the country of origin rules per 19 C.F.R. § 102.11, in order to determine whether a good qualifies to be marked as a good of a NAFTA country. *See* 19 C.F.R. § 134.1(j). Section 102.11, CBP Regulations (19 C.F.R. § 102.11), provides the hierarchical rules for determining the country of origin of imported goods for NAFTA purposes, in part, as follows:

- (1) The good is wholly obtained or produced;
- (2) The good is produced exclusively from domestic materials; or
- (3) Each foreign material incorporated in that good undergoes an applicable change in tariff classification set out in 102.20 and satisfies any other applicable requirements of that section and all other applicable requirements of these rules are satisfied.

The three data storage products are neither wholly obtained or produced in a single NAFTA country or produced exclusively from domestic materials. You state that the three products are classified under subheading 8471.70, HTSUS. CBP agrees with the Company's classification with regard to Product One and Product Three. However, after consulting with the National Commodity Specialist Division ("NCSD"), we have determined that Product Two is classified in subheading 8471.80, HTSUS. The tariff shift rule for goods of subheading 8471.70 and 8471.80 is set forth in 19 C.F.R. § 102.20 as follows:

8471.60 – 8472.90

A change to subheading 8471.60 through 8472.90 from any other subheading outside that group, except from subheading 8504.40 or from heading 8473; or

A change to subheading 8471.60 through 8472.90 from any other subheading within that group or from subheading 8504.90 or from heading 8473, provided that the change is not the result of simple assembly.

In all three instances, the Company concedes that the tariff shift rule is not met because the major components are classified in subheadings between 8471.60 and 8472.90, HTSUS, and do not undergo a tariff shift.

However, the Company states that the products will qualify for preferential tariff treatment under the NAFTA. Assuming the Company plans to make a NAFTA claim at the time of entry, 19 C.F.R. § 102.19(a) provides as follows:

...if a good is originating within the meaning of 181.1(q) of this chapter is not determined under 102.11(a) or (b) or 102.21 to be a good of a single NAFTA country, the country of origin of such good is the last NAFTA country in which that good underwent production other than minor processing...

The language of 19 C.F.R. § 102.19(a) is applicable because pursuant to GN 12(b)(v), the three products are considered originating because they are classified under subheading 8471.70 and 8471.80, HTSUS.<sup>1</sup> Since the three products undergo production other than minor processing in Mexico, the country of origin for marking purposes under the NAFTA Marking Rules will be Mexico.

HOLDING:

Based on the facts provided, we find that the country of origin of Products One and Three for purposes of U.S. Government procurement is Mexico. The country of origin of Product Two for purposes of U.S. Government procurement is Malaysia. The country of origin for all three products for marking purposes will be Mexico under the NAFTA Marking Rules.

Notice of this final determination will be given in the Federal Register, as required by 19 C.F.R. § 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 C.F.R. § 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 C.F.R. § 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the Court of International Trade.

Sincerely,

Alice A. Kipel, Executive Director  
Regulations and Rulings,  
Office of Trade

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<sup>1</sup> GN 12(b)(v) states that the goods enumerated in subdivision (u) of GN 12 are originating in the territory of a NAFTA party. GN 12(u) states that automatic data processing machines and parts that are classified under subheading 8471.70 and 8471.80 are considered originating when they are imported into the customs territory of the United States from the territory of Canada or of Mexico.

HQ H269223

June 8, 2017

**CLA-2 OT:RR:CTF:CPM H269223 NCD**

**CATEGORY:** Classification

**TARIFF NO.:** 8476.90.0000

Port Director  
Service Port Charlotte  
U.S. Customs and Border Protection  
1901 Crossbeam Drive  
Charlotte, NC 28217

**Attn:** Sharon Saunders, Senior Import Specialist

**Re:** Protests and Applications for Further Review Nos: 1512-14-100025, 1512-14-100026, and 1512-14-100130; Classification of incomplete PPE and MRO equipment dispensers

Dear Port Director:

The following is our decision as to Protests and Applications for Further Review Nos. 1512-14-100025, 1512-14-100026, and 1512-14-100130, which were timely filed on, respectively, March 25, 2014, April 2, 2014, and October 22, 2014. The protests all pertain to the classification of incomplete PPE and MRO equipment dispensers under the Harmonized Tariff Schedule of the United States ("HTSUS"). Various entries of the subject items were entered by Protestant and liquidated by U.S. Customs and Border Protection ("CBP") at the Port of Wilmington ("the Port"). Protestant asserts that CBP's classification of the subject items at liquidation is incorrect. In reaching the below decision, we have taken into account information provided and arguments set forth in all three protests; in Protestant's supplemental submission of June 16, 2014 ("first supplemental submission"); in our April 24, 2017 meeting with Protestant's representatives; and in Protestant's supplemental submission of May 22, 2017 ("second supplemental submission").

**FACTS:**

The instant protest pertain to the incomplete bodies of apparatus which, when fully assembled, are used to dispense personal protective equipment ("PPE") and

maintenance, repair, and operations (“MRO”) equipment. In its completed state, the item consists of a large metal outer shell that fully encases an internal rotary drum, as well as an external control panel from which the unit is operated. Along the internal drum’s outer circumferential surface are multiple rows of horizontal shelves and removable vertical dividers that, in conjunction, form adjustable compartments for the placement of PPE and MRO equipment. Dispensation of the PPE or MRO equipment contained in the apparatus is effectuated and regulated by the external control device, which includes a touchscreen-operated automatic data processor and radiofrequency or magnetic card reader.

According to Protestant, the large majority of the finished dispensers are sold to industrial suppliers, which in turn install the dispensers in their customers’ facilities – typically industrial worksites – and continually stock the dispensers’ internal compartments. Employees of a supplier’s customer can access a dispenser’s contents by swiping or scanning an employer-issued, dispenser-calibrated card and navigating a series of prompts displayed on the touchscreen to select specific equipment. Selection of the equipment in turn initiates the rotation of the internal drum to a designated position at which the compartment containing the selected equipment aligns with one of several doors along the front of the metal shell. Once the drum has been rotated to the correct position, the corresponding door is unlocked by an internal locking mechanism and is illuminated by LED lights, at which point the user can open the door and retrieve the equipment. Upon removal of the equipment, a notification indicating such is electronically transmitted to the supplier (or in some cases to the dispenser’s manufacturer for batching and transmission to the supplier). The supplier bills the customer for any items removed at regular intervals. However, in the purportedly limited cases in which the dispensers are sold directly to end-users, use of the dispensers may not necessarily involve a transaction of this type.

At entry, the subject dispensers consist of the side and back panels of the outer shell, the internal rotary drum with compartments, and the motor which rotates the drum. Following importation, they are fitted with front panels, which contain the compartment doors and mechanical locking mechanisms, as well as external control panels and various electrical components necessary for actuation of the mechanical components.

The subject items were entered in thirty-three separate entries between August 10, 2012 and September 5, 2014, and were classified upon entry in heading 8476, HTSUS, specifically subheading 8476.89.00, HTSUS, which provides for “Automatic goods-vending machines (for example, postage stamp, cigarette, food or beverage machines), including money-changing machines; parts thereof: Other machines: Other.” CBP liquidated the units between September 27, 2013 and September 5, 2014 in heading 8479, HTSUS, specifically subheading 8479.89.98 of the 2013 and 2014 HTSUS, which provided for “Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other: Other.” In its protests and first supplemental submission, Protestant claims classification in heading 9403, HTSUS, specifically subheading 9403.20.00, HTSUS, which provides for “Other furniture and parts thereof: Other metal furniture.” In its

second supplemental submission, Protestant claims, in the alternative, classification in 8476.89.00, HTSUS, as entered.

**ISSUE:**

Whether the subject items are properly classified in heading 8476, HTSUS, as automatic goods-vending machines or parts thereof, in heading 8479, HTSUS, as machines having individual functions, or in heading 9403, HTSUS, as "other" furniture.

**LAW AND ANALYSIS:**

Initially, we note that the matters protested are protestable under 19 U.S.C. §1514(a) (2) as decisions on classification. The protests were timely filed, within 180 days of liquidation of the first entry. (Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006)). Further Review of Protests Nos. 1512-14-100025, 1512-14-100026, and 1512-14-100130 is properly accorded to Protestant pursuant to 19 C.F.R. § 174.24(a) because Protestant alleges that the decisions are inconsistent with a previous CBP decision with respect to substantially similar merchandise.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation ("GRIs") and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order. GRI 2(a) provides, in relevant part, that "[a]ny reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as entered, the incomplete or unfinished articles has the essential character of the complete or finished article."

The Harmonized Commodity Description and Coding System Explanatory Notes ("ENs") constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The 2012, 2013, and 2014 HTSUS provisions under consideration in the instant case are as follows:

**8476** Automatic goods-vending machines (for example, postage stamp, cigarette, food or beverage machines), including money-changing machines; parts thereof:

Other machines:

8476.89.00      Other

8476.90.00      Parts

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**8479** Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof:

Other machines and mechanical appliances:

8479.89      Other:

8479.89.98      Other

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**9403** Other furniture and parts thereof:

9403.20.00      Other metal furniture

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Protestant claims that the subject items are classified in heading 9403, HTSUS, which applies, *inter alia*, to “other” furniture. Note 2 to Chapter 94 states, in pertinent part, as follows:

The articles (other than parts) referred to in headings 9401 to 9403 are to be classified in those headings only if they are designed for placing on the floor or ground...

The General EN to Chapter 94 expounds upon this requirement as follows:

For the purposes of this Chapter, the term “furniture” means:

(A) Any “movable” articles (**not included** under other more specific headings of the Nomenclature), which have the essential characteristic that they are constructed for placing on the floor or ground, and which are used, mainly with a utilitarian purpose, to equip private dwellings, hotels, theatres, cinemas, offices, churches, schools, cafés, restaurants, laboratories, hospitals, dentists’ surgeries, etc., or ships, aircraft, railway coaches, motor vehicles, caravan-trailers or similar means of transport. (It should be noted that, for the purposes of this Chapter, articles are considered to be “movable” furniture even if they are designed for bolting, etc., to the floor, e.g., chairs for use on ships);

EN 94.03 states, in pertinent part, as follows:

This heading covers furniture and parts thereof, **not covered** by the previous headings. It includes furniture for general use (e.g., cupboards, show-cases, tables, telephone stands, writing-desks, escritoires, book-cases, and other shelved furniture (including single shelves presented with supports for fixing them to the wall), etc.), and also furniture for special uses.

The heading includes furnitures for:

- (1) **Private dwellings, hotels, etc.**, such as: cabinets, linen chests, bread chests, log chests; chests of drawers, tallboys; pedestals, plant stands; dressing-tables; pedestal tables; wardrobes, linen presses; hall stands, umbrella stands; side-boards, dressers, cupboards; food-safes; bedside tables; beds (including wardrobe beds, camp-beds, folding beds, cots, etc.); needlework tables; stools and foot-stools (whether or not rocking) designed to rest the feet, fire screens; draught-screens; pedestal ashtrays; music cabinets, music stands or desks; play-pens; serving trolleys (whether or not fitted with a hot plate).
- (2) **Offices**, such as: clothes lockers, filing cabinets, filing trolleys, card index files, etc.
- (3) **Schools**, such as: school-desks, lecturers' desks, easels (for blackboards, etc.).
- (4) **Churches**, such as: altars, confessional boxes, pulpits, communion benches, lecterns, etc.
- (5) **Shops**, stores, workshops, etc., such as: counters; dress racks; shelving units; compartment or drawer cupboards; cupboards for tools, etc.; special furniture (with cases or drawers) for printing-works.
- (6) **Laboratories or technical offices**, such as: microscope tables; laboratory benches (whether or not with glass cases, gas nozzles and tap fittings, etc.); fume-cupboards; unequipped drawing tables.

Pursuant to Note 2 to Chapter 94, and as explained in the General EN to the chapter, the tariff term “furniture” applies, with limited exceptions, only to portable articles that are designed for placement on the floor or ground and that are primarily utilitarian, rather than decorative, in nature. See *The Pomeroy Collection, Ltd. v. United States*, 893 F. Supp. 2d 1269, 1283-85 (Ct. Int'l Trade 2013) (citing *Furniture Import Corp. v. United States*, 56 Cust. Ct. 125, 133 C.D. 2619 (1966)). Above and beyond this, the requisite and defining features of furniture are evident in the exemplars of such set forth in EN 94.03. See *LeMans Corp. v. United States*, 660 F.3d 1311, 1321 (Fed. Cir. 2011) (stating that use of EN exemplars to clarify the scope of a heading is “entirely proper”). One notable characteristic shared by all the exemplars is the inherence of their utilitarian value by virtue of their structural design. For example, tables, desks, pulpits, alters, beds, foot-stools, and trolleys are all made up of flat surfaces capable of

bearing weight with the support of legs, while draught screens and play-pens consist of vertical panels or rails that provide enclosure for their users. None of these articles require assistive mechanisms to render them fully functional. In a similar vein, the cabinets, cupboards, wardrobes, chests, sideboards, lockers, and other receptacles identified in EN 94.03 all include doors, lids, or other openings that offer complete and direct access to their internal space. In this manner, they enable the uninhibited manual placement and retrieval of contents stored within them by their users, even when stripped of any additional components – mechanical, electrical, or otherwise – that may restrict or increase ease of access.

In contrast, the subject items, while free-standing and movable, lack a structural design that renders them suitable for storage in the absence of its mechanical components. Rather than openly accessible, the items' internal compartments are incorporated into a rotary drum which is encased on three sides. As such, only a portion of the article's full range of compartments are reachable at any given time, and complete access to the compartments is contingent upon rotation of the internal mechanical drum to particular positions. It is unclear whether the drum could be rotated manually to this end, and in fact, Protestant has conceded that it is not used in this manner. It is therefore our view that, absent mechanization of the drum to allow for unfettered placement, storage, and retrieval of PPE and MRO equipment contained in the compartments, the item cannot be said to offer utilitarian value as a receptacle. Because it also lacks the utility of, and structural likeness to, any other article of furniture, it cannot be said to satisfy the criteria of furniture for purposes of classification in heading 9403, HTSUS.

Protestant contends that the subject item is in fact classifiable in heading 9403 at the time of entry because it is, at that point, "essentially a metal cabinet with storage compartments and a motor that rotates the drum." We disagree. The subject item is not essentially a storage cabinet; rather, it is essentially a machine, insofar as it contains all the requisite features to mechanically dispense the items placed in it. Specifically, the item is equipped at entry with the drum, which rotates the compartment to align with the access doors, as well as the internal mechanism that unlocks these doors. That it does not contain the electronic device to track the dispensation of these items upon entry is irrelevant, as discussed above. In fact, because the unit's compartments are entirely encased by the outer shell, manual placement or retrieval of items is not possible when the unit is left unpowered. That the item is completely useless for its intended purpose absent its mechanical components further reinforces our position that it cannot be considered an article of furniture.

Protestant also cites previous CBP rulings, including New York Ruling Letter (NY) N204484, dated March 13, 2012, and NY K82370, dated January 27, 2004, in support of its asserted classification in heading 9403. However, unlike the subject merchandise, the "Hybrid Accucab" at issue in NY N204484 took the form of a traditional cabinet, replete with doors that allowed full access to the unit's internal shelves, and therefore fit among the exemplars set forth in EN 94.03. While the Hybrid Accucab was equipped with electronic components that controlled access to the unit and managed its contents,

these components did not impart the unit's functionality as a receptacle. Similarly, while the "Variable Height" cabinet, countertop, and washbasin at issue in NY K82370 incorporated mechanical components, those components were designed only to raise or lower the primary articles so as to facilitate their use. They did not altogether enable this use, as the cabinet, washbasin, and countertop were already fully functional as, respectively, receptacles and a weight-bearing surface. Accordingly, our determination is not precluded by either NY N204484 or NY K82370, and is in fact supported by various CBP rulings pertaining to machines that move or dispense items placed within them. See, e.g., NY N167776, dated June 22, 2011 (classifying storage unit with internal rotating chambers outside heading 9403, HTSUS); NY N074022, dated September 29, 2009 (similarly classifying pharmaceutical distribution system with internal retrieval mechanism outside heading 9403).

As such, we consider Protestant's alternative claim for classification in heading 8476, HTSUS, as "automatic goods-vending machines." In so doing, we note that the items are incomplete at entry and are processed into finished goods only following importation. We therefore must specifically determine whether the goods into which the items are completed fall within the scope of heading 8476, and if so, whether the items can be treated as the completed goods for purposes of classification. Alternatively, because heading 8476 applies to "parts" of vending machines, we consider whether the items qualify as such in the event that they cannot be classified as complete articles of the heading.

EN 84.76 provides, in pertinent part, as follows with respect to the scope of heading 8476, HTSUS:

This heading covers the various kinds of machines which supply some kind of merchandise when one or more coins, tokens or a magnetic card are put in a slot (**other than** those machines covered more specifically by other headings of the Nomenclature or excluded from the Chapter by a Chapter or Section Note). The term "vending" in the context of this heading refers to a "monetary" exchange between the purchaser and the machine in order to acquire a product. This heading **does not cover** machines which dispense a product but do not have a device to accept payment.

\* \* \*

The heading covers not only machines in which the distribution is automatic, but also those consisting of a number of compartments from which the merchandise can be withdrawn after the coin has been inserted, the machine incorporating a device for releasing the lock of the appropriate compartment (e.g., by pressing on a corresponding button).

\* \* \*

## PARTS

**Subject** to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), the heading also covers...parts of the machines of this heading.

The term “vending machine” is not defined in the HTSUS. In the absence of a statutory definition, a tariff term is construed according to its common and commercial meaning, which are presumably identical. *Tyco Fire Products v. United States*, 841 F.3d 1353, 1357 (Fed. Cir. 2016). A term’s meaning may be ascertained by reference to dictionaries, which specifically impart its common meaning, as well as “other reliable information sources” and, in particular, the ENs. *Carl Zeiss, Inc. v. United States*, 195 F.3d 1375, 1379 (Fed. Cir. 1999); see also *GRK Can., Ltd. v. United States*, 761 F.3d 1354, 1357 (Fed. Cir. 2014) (emphasizing the importance of the ENs). Among the sources that are regularly consulted pursuant to this maxim is industry literature, which may inform a term’s commercial meaning. See *Rockwell Fastener, Inc. v. United States*, 267 F.3d 1354, 1361 (Fed. Cir. 2001) (citing ANSI specifications as industry standards indicative of commercial designation); see also *Well Luck Co., Inc. v. United States*, 208 F. Supp. 3d 1364 (Ct. Int’l Trade 2017); and *Specialty Commodities, Inc. v. United States*, 190 F. Supp. 3d 1277, 1285-1286 (Ct. Int’l Trade 2016) (both citing industry references in defining tariff terms at issue).

“Vending machine” is consistently defined in dictionaries as an apparatus that dispenses merchandise in exchange for coins or another form of payment. See, e.g., OXFORD ENGLISH DICTIONARY (2017), available at <http://www.oed.com/view/Entry/222068> (defining vending machine as a “slot machine from which comestibles or other small goods may be obtained”); Merriam-Webster.com, definition of VENDING MACHINE, <https://www.merriam-webster.com/dictionary/vending%20machine> (last visited June 6, 2017) (defining term as “a coin-operated machine for selling merchandise”); Collins English Dictionary, vending machine, <https://www.collinsdictionary.com/us/dictionary/english/vending-machine> (defining term as “a machine that automatically dispenses consumer goods such as cigarettes, food, or petrol, when money is inserted.”). This definition of vending machine is consistent with characterizations of such in industry literature and EN 84.76. See NATIONAL AUTOMATIC MERCHANDISING ASSOCIATION, VENDING 101 (stating that vending involves provision of service at an “unattended point of sale”); and EN 84.76 (“‘Vending’ in the context of this heading refers to a ‘monetary’ exchange between the purchaser and the machine in order to acquire a product.”); see also Headquarters Ruling Letter (HQ) 962415, dated February 22, 2000 (determining that medication dispenser did not qualify as a vending machine because dispensation did not involve a monetary transaction).

Industry literature and EN 84.76 both further indicate that vending machines may incorporate a broad range of payment mechanisms, including, among other things, card readers and devices designed to process other forms of “cashless” payment. See, e.g., NATIONAL AUTOMATIC MERCHANDISING ASSOCIATION, VENDING 101; Chris Mumford, *The Components Of Credit Card Vending*, AUTOMATIC VENDING MERCHANDISER, July 22, 2014, <http://www.vendingmarketwatch.com/article/10256874/the-components-of-credit-card-vending>; and Tim Sanford, *AVA Study Shows UK’s Vending Industry and Cashless Payments on Upswing*, VENDING TIMES, June 6, 2017 (all discussing the prevalence of

non-cash payment mechanisms in vending machines). These mechanisms may not effectuate direct and immediate payment but instead trigger a process by which payment is eventually delivered, via third party institutions, from the purchaser's account to that of the vendor. See Chris Mumford, *The Components Of Credit Card Vending*, Automatic Vending Merchandiser, July 22, 2014, <http://www.vendingmarketwatch.com/article/10256874/the-components-of-credit-card-vending>; see also Credit Cards.com, How a Credit Card is Processed, <http://www.creditcards.com/credit-card-news/how-a-credit-card-is-processed-1275.php> (last visited May 25, 2017). In light of this, we are of the view that an apparatus incorporating a payment mechanism qualifies as a vending machine within the meaning of heading 8476, HTSUS, even if the temporal nexus between delivery and payment is not necessarily direct. See NY N131698, dated December 7, 2010 (indicating that hotel minibar which transmits consumption data to hotel system for subsequent billing is classified in heading 8476, HTSUS).

Here, the subject items consist of an encased rotary drum with incorporated compartments that are clearly designed to dispense the equipment located in the compartments. According to the Protestant, the vast majority of the equipment dispensers into which the subject items are ultimately assembled effectively initiate a payment process upon removal of the dispensed equipment, and as such, can be likened to credit card-compatible vending machines. As Petitioner explains, this is because the vast majority of dispensers are sold to industrial suppliers which rely upon the dispensers' card reader and internal tracking system to subsequently bill customers for the dispensed equipment. To support this contention, Protestant has proffered numerous purchase orders evidencing sales of the dispensers to industrial suppliers. To the extent that a given dispenser is verifiably used in this manner, we agree that it conducts a transaction similar to that conducted by vending machines upon insertion of a credit card or other non-cash form of payment. Specifically, removal of the goods by a customer's employee commences a process that eventually, though not immediately, results in payment for the goods by the customer to the supplier. That equipment dispensers of this type qualify as vending machines is further supported by industry literature referring to such products as "industrial vending machines." See, e.g., Anna Wells, *Dispense Sense*, INDUSTRIAL MAINTENANCE & PLANT OPERATION, Sept. 17, 2013, <https://www.impomag.com/article/2013/09/dispense-sense>; *AutoCrib Unveils Three New Industrial Vending Solutions At IMTS*, INDUSTRIAL DISTRIBUTION, Sept. 11, 2014, <https://www.inddist.com/product-release/2014/09/autocrib-unveils-three-new-industrial-vending-solutions-imts>. Moreover, the method of the dispenser's equipment delivery, i.e., by the alignment and unlocking of compartments containing the equipment, is permissible within the scope of heading 8476, HTSUS. See EN 84.76.

That said, while the vast majority of the finished dispensers may qualify as vending machines by virtue of their sale to industrial suppliers for use as such, at least some do not. Of the latter category are the dispensers sold directly to end-users, i.e., the companies whose employees use the dispensers and which may not necessarily exact payment from their employees for this use. Given that the subject items are all of uniform construction at entry, it is not possible to distinguish those falling in the former

category from those falling in the latter. As such, it cannot be definitively stated that all finished dispensers are products of heading 8476, HTSUS.

Moreover, even assuming that such a determination were possible, none of the subject items constitute finished vending machines at the time of entry. As stated above, GRI 2(a) provides that unfinished articles may be treated as finished for purposes of classification under GRI 1 so long as they have the “essential character” of the finished good. The EN to Section XVI states as follows with respect to the application of GRI 2(a) to, *inter alia*, articles of heading 8476:

**(IV) INCOMPLETE MACHINES**  
(See General Interpretative Rule 2 (a))

Throughout the Section any reference to a machine or apparatus covers not only the complete machine, but also an incomplete machine (i.e., an assembly of parts so far advanced that it already has the main essential features of the complete machine). Thus a machine lacking only a flywheel, a bed plate, calendar rolls, tool holders, etc., is classified in the same heading as the machine, and not in any separate heading provided for parts. Similarly a machine or apparatus normally incorporating an electric motor (e.g., electro-mechanical hand tools of heading 84.67) is classified in the same heading as the corresponding complete machine even if presented without that motor.

As discussed above, a defining feature of a vending machine is its capacity to dispense goods in exchange for (eventual) payment. This being the case, it is our view that the payment mechanism constitutes a “main essential feature” of a vending machine, without which an apparatus lacks the essential character of such. Here, the subject articles contain the internal rotary drums and compartments from which PPE and MRO equipment is dispensed, but lack the external control panel and additional electronic components with which a payment process can be initiated. As such, even where a given item is slated for eventual use as a vending machine, it cannot be treated as such for purposes of classification in heading 8476, HTSUS, pursuant to GRI 2(a). In view of the above, none of the subject items can be classified as vending machines of heading 8476.

However, because heading 8476, HTSUS, also applies to parts of vending machines, we alternatively consider whether the subject items can be classified as such. Note 2 to Section XVI states as follows with respect to parts of, *inter alia*, articles of heading 8476:

Subject to note 1 to this section, note 1 to chapter 84 and to note 1 to chapter 85, parts of machines (not being parts of the articles of heading 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

- (a) Parts which are goods included in any of the headings of chapter 84 or 85 (other than headings 8409, 8431, 8448, 8466, 8473, 8487, 8503, 8522, 8529, 8538 and 8548) are in all cases to be classified in their respective headings;

(b) *Other parts, if suitable for use solely or principally with a particular kind of machine*, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) *are to be classified with the machines of that kind* or in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate. However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517...*(emphasis added)*

Applied here, Note 2(b) provides that “parts” of vending machines are classified in heading 8476, HTSUS, if they are suitable for use solely or principally with vending machines. Like the term “vending machine”, the term “part” has been left undefined in the HTSUS. In the absence of a statutory definition of “part,” courts have developed two distinct but consistent tests for determining whether a particular item can be described as such. *Bauerhin Techs. Ltd. Pshp. v. United States*, 110 F.3d 774, 779 (Fed. Cir. 1997). Under the first of these, initially promulgated in *United States v. Willoughby Camera Stores, Inc.*, 21 C.C.P.A. 322, 324 (1933), an imported item can be described as part of an article if it is an “integral, constituent, or component part, without which the article to which it is to be joined, could not function as such article.” *Bauerhin*, 110 F.3d at 779.\*

It is beyond dispute that the subject items are integral to the use of the finished dispensers as vending machines. But for the rotary drum and accompanying compartments, for example, the vending machines would be unable to effectively dispense PPE and MRO equipment. Moreover, the subject items include the bulk of the encasement that imparts the vending machines with their form and shields their contents from unauthorized removal, thus ensuring the integrity of the billing system. The subject items therefore satisfy the *Willoughby Camera* vis-à-vis the finished dispensers slated for use as vending machines. As stated above, Protestant has proffered numerous invoices indicating that the overwhelming majority of the dispensers are purchased by industrial suppliers, which operate the dispensers as vending machines within the meaning of heading 8476. Hence, the subject items can be described as parts suitable for use “principally” with vending machines of the heading. The subject items thus satisfy the criteria of Note 2(b) to Section XVI and are consequently classified as parts of vending machines in heading 8476, HTSUS, specifically subheading 8476.90.00, HTSUS.

## HOLDING:

By application of GRIs 1 and 2(a), the equipment storage, dispensation, and management unit is classified in heading 8476, HTSUS, specifically subheading

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\* Under the second test, set forth in *United States v. Pompeo*, 43 C.C.P.A. 9, 14 (1955), a good qualifies as a part if it is “dedicated solely for use” with a particular article. *Bauerhin*, 110 F.3d at 779 (citing *Pompeo*, 43 C.C.P.A. at 14). Whether the “Willoughby” or “Pompeo” test applies in a given case depends upon on the specific facts of that case. See *id.* (applying principle from *Pompeo* upon determining that “[t]he facts in *Willoughby Camera* are considerably different from those presented here”). Here, because the items satisfy the former, we need not apply the latter.

8476.90.0000 of the 2012, 2013, and 2014 HTSUSA (Annotated), which provided for "Automatic goods-vending machines (for example, postage stamp, cigarette, food or beverage machines), including money-changing machines; parts thereof: Parts." The 2012, 2013, and 2014 general column one rate of duty for subheading 8476.90.0000, HTSUSA, is free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

Since reclassification of the merchandise as indicated above will result in the same rate of duty as claimed, you are instructed ALLOW the protests in full.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office International Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H270725  
November 7, 2016

CLA-2  
OT:RR:CTF:TCM H270725 PTM

CATEGORY: CLASSIFICATION

TARIFF NO: 9113.90.80

David Sanders  
Cassidy Levy Kent (USA) LLP  
2000 Pennsylvania Ave. NW, Suite 3000  
Washington, D.C. 20006

RE: Internal Advice Request, Tariff Classification of Apple Watch Bands

Dear Mr. Sanders,

We are writing in response to your request to U.S. Customs and Border Protection (“CBP”) dated October 15, 2015 in which you request internal advice on behalf of Apple, Inc. (“Apple”), concerning the tariff classification of wrist bands for the Apple Watch under the Harmonized Tariff Schedule of the United States (“HTSUS”). In reaching our determination, we also considered the substance of our meeting on September 22, 2016 and your additional submission dated September 29, 2016. Our response follows.

**FACTS:**

The product at issue are bands for the Apple Watch. The Apple Watch is a “smart watch” that pairs with a user’s iPhone via a Bluetooth® connection to perform various functions. In Headquarters Ruling (“HQ”) H260060 we described the Apple Watch as follows:

The Apple Watch is a battery-operated, wearable electronic device in the form of a wrist-watch, incorporating a touch-sensitive, active-matrix organic light-emitting diode (AMOLED) display, a central processing unit (CPU), random access memory (512MB RAM), a 8GB internal flash memory hard drive, microphone, speaker, vibration motor, accelerometer, gyroscope, heart rate sensor, and a radio transceiver (NFC, Bluetooth® 4.0, and Wi-Fi).

\* \* \*

When the Apple Watch is “paired” with an iPhone, the wearer is able to use apps on the Apple Watch to display, manipulate, and store data on the Apple

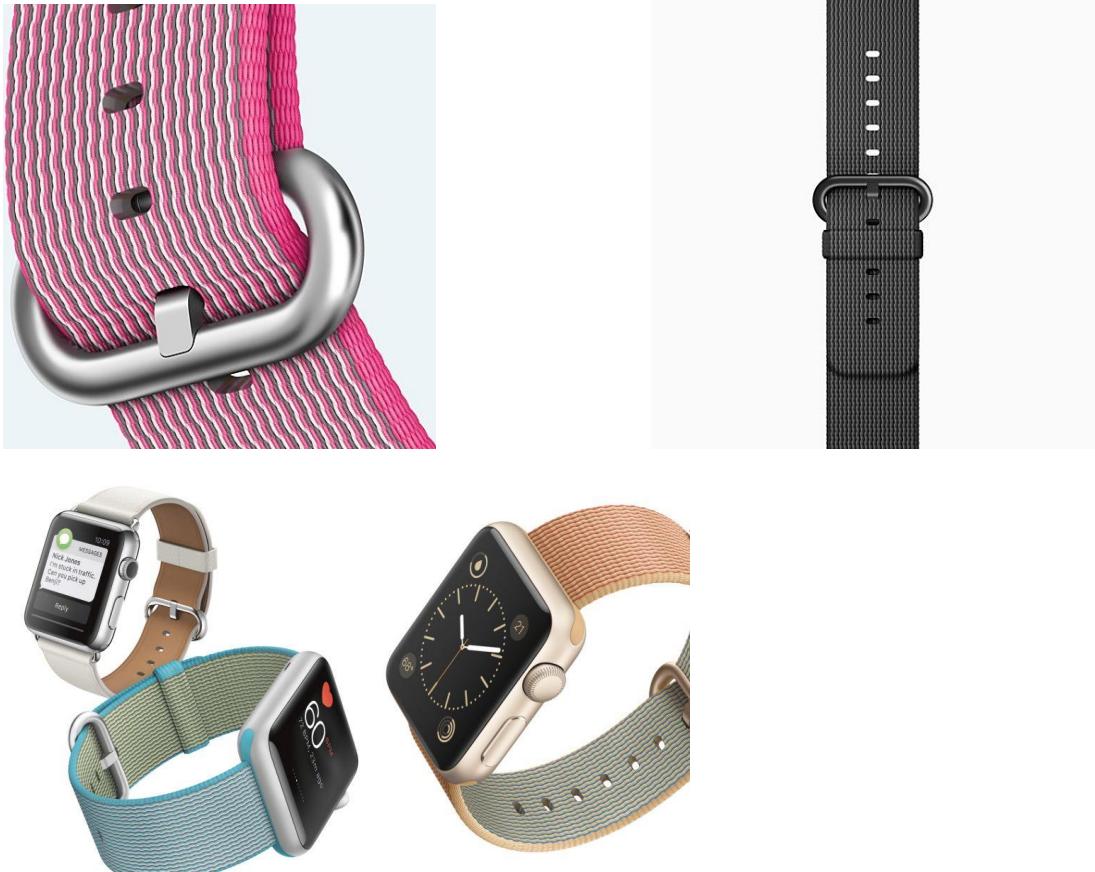
Watch itself, or on the connected iPhone. The Apple Watch apps communicate wirelessly with the WatchKit extension on the iPhone and are capable of performing a variety of functions, including: receiving and responding to electronic communications, tracking fitness, displaying location-based information and directions, accessing Internet data, sending and receiving audio messages, paying for purchases using Apple Pay™ via NFC wireless connections, displaying airplane boarding passes, and controlling an Apple TV®. See “Apple Unveils Apple Watch—Apple’s Most Personal Device Ever,” [www.apple.com/pr/library/2014/09/09Apple-Unveils-Apple-Watch-Apples-Most-Personal-Device-Ever.html](http://www.apple.com/pr/library/2014/09/09Apple-Unveils-Apple-Watch-Apples-Most-Personal-Device-Ever.html) (last visited June 17, 2015).

Although the Apple Watch must be paired with an iPhone to perform most functions, the Apple Watch is capable of performing several functions without being connected to an iPhone. “Unpaired” functions of the Apple Watch include: playing music stored locally on the Apple Watch; using watch, alarm, timers, and time functions; keeping track of physical activities and exercise; displaying photos stored locally on the Apple Watch; and using Apple Pay™ to make purchases via NFC wireless connections. See “Use Apple Watch without its paired iPhone,”

The Apple Watch bands secure the Apple Watch to the user’s wrist. The bands attach to the Apple Watch with specially designed lugs, and are secured on the user’s wrist via a buckle mechanism. There are various buckle designs. The bands have two size variables: lengths and lug size. You state that the lug and groove contained on the strap do not fit other wearable devices. The bands are available in three materials: Fluroelastomer, Stainless Steel, and Bovine Leather and are available in various colors. The Apple Watch is similar in size to conventional wrist-watches. Further, it is worn by the user in the same manner as a conventional wrist-watch. The Apple Watch Bands perform the same function as the watch band or strap of a conventional wrist watch: it attaches the watch to the user’s wrist.

The Apple Watch has various functions that require that the watch be affixed to the user’s wrist. The watch has activity tracking functionality that measures the user’s activity levels. It can measure how many calories a user burns and the user’s heartrate. The “taptic” functionality provides the user with notifications by “tapping” the user’s wrist. The watch will not go into standby mode so long as it is affixed to the user’s wrist. Otherwise, the user must input a security code in order to unlock it. Functions such as “Apple Pay” will not work while the watch is in standby mode. The watch has a power-saving function that powers the watch off when it is not oriented towards the user’s view. Other functions do not require the Apple Watch to be on the user’s wrist. These include displaying the time and date, playing music, connecting to the internet and displaying photos.

You state that the lugs are specially designed for the Apple Watch and that it is not possible to secure a strap or band to the Apple Watch without the specially designed and patented lugs. However, the lugs are available to third parties to permit them to create their own Apple Watch straps and bands. The following are images of Apple Watch Bands:



**ISSUE:**

What is the tariff classification of the Apple Watch bands?

**LAW AND ANALYSIS:**

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, GRIs 2 through 6 may then be applied in order.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While not legally binding, and therefore not dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized System and are thus useful in ascertaining the classification of merchandise under the System. See T.D. 89-80, 54 Fed. Reg. 35127 (Aug. 23, 1989).

The HTSUS provisions under consideration are as follows:

- 8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area

network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof:

8517.70      Parts

\* \* \*

9113 Watch straps, watch bands and watch bracelets, and parts thereof:

Note 1(n) to Section XVI, HTSUS, which includes heading 8517 states:

1. This section does not cover:  
(n) Clocks, watches or other articles of chapter 91;

Thus, if the Apple Watch Bands are classifiable in Chapter 91, then they are excluded from classification in heading 8517 by virtue of Note 1(n) to Section XVI.

Note 1(g) to Chapter 91, HTSUS, provides:

1. This chapter does not cover:

(g) Articles of chapter 85, not yet assembled together or with other components into watch or clock movements or into articles suitable for use solely or principally as parts of such movements (chapter 85).

With respect to Note 1(g) to Chapter 91, Chapter 85, HTSUS, the Apple Watch Bands at issue here are simple bands designed to hold the Apple Watch on the user's wrist and therefore cannot be characterized as electrical machinery and equipment or parts thereof that are assembled together into a watch or clock movements, or into articles suitable for use solely or principally as parts of such movements. Thus, the Apple Watch Bands are not excluded from classification in Chapter 91 HTSUS by virtue of Note 1(g).

In HQ H260060, CBP classified the Apple Watch in subheading 8517.62.00, HTSUS, which provides for, "Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network); Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus." In reaching this classification, CBP applied GRI 3(b) because the Apple Watch was found to be a composite good consisting of several components that were *prima facie* classifiable in different headings. CBP found that the essential character of the Apple Watch is imparted by the radio transceiver because it enables the Apple Watch to be paired with the Apple iPhone and run various applications. Consequently, it is your position that the Bands are appropriately classified as parts

of the Apple Watch in heading 8517 HTSUS, rather than in heading 9113 HTSUS, which provides *eo nomine* for watch bands and straps.

In support of your position, you state that the Bands are specifically designed for use with the Apple Watch, and that the Apple Watch cannot properly function without the Bands. In order for the Apple Watch to measure activity levels, it must be affixed to the wrist of the user to measure heart rate. The taptic functionality of the Apple Watch also requires that the Watch be affixed to the wrist. The Apple Watch will not go into standby mode when it is attached to the user's wrist.

However, the Apple Watch does function as a watch and comes "in the form of a wrist-watch." *See HQ H260060, supra.* Furthermore, the Apple Watch will still perform numerous functions while not affixed to the user's wrist. The Watch can still display the time, play music, surf the internet, respond to text messages and emails, perform as a clock-alarm on Night Stand Mode<sup>1</sup> and run various other applications. The Bands themselves do not perform any of these functions. Rather, they serve solely to keep the Apple Watch affixed to the user's wrist in the same manner that watch bands affix traditional watches to users' wrists. Furthermore, as stated in HQ H260060, CBP determined that the radio transceiver imparted the essential character of the device. The Apple Watch Bands do not assist the transceiver in the Apple Watch in any way from pairing with the user's iPhone. Therefore, they cannot be said to be an indispensable part of the transceiver and an essential part of the Apple Watch.

By contrast, CBP has previously classified smart-watch bands in heading 9113. In New York Ruling ("NY") N263082, dated April 17, 2015, CBP classified watch bands designed for use with smart-watches in heading 9113. Notably, the ruling classified several bands intended for use with the Apple Watch in various subheadings of heading 9113 depending on the component material. You state that this ruling is not applicable to the instant watch bands because CBP had not at that time issued its ruling concerning the tariff classification of the Apple Watch itself in HQ H260060. We disagree. The sole function of the Apple Watch Band is to fasten the Apple Watch to the wrist of the user, and in this respect is no different from any other watch band. Consequently, we find that the Apple Watch bands are classifiable in heading 9113, HTSUS.

You cite several rulings that classify straps in headings other than 9113. In NY E88650 (Oct. 26, 1999), legacy Customs Service classified a strap used to hold a bar code reader in heading subheading 8473.30 HTSUS, which provides for parts and accessories of a machine in heading 8471 HTSUS. However, the bar code reader has no resemblance either in form or function to any sort of watch. In HQ H244547 (Mar. 28, 2014), CBP classified a wrist mount for a mobile computer in subheading 8473.30. The wrist mount contained a plastic mounting bracket was attached to the user's arm using two hook and loop straps. Here again, the product at issue has no resemblance in form or function to any sort of watch. Due to the dissimilarity between these products and the merchandise at issue here, we find that these rulings are inapplicable.

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<sup>1</sup> See "Use Nightstand Mode on Your Apple Watch" available at <https://support.apple.com/en-us/HT205045>.

The EN to heading 91.13 adds further support for classifying the Bands in heading 9113. It states:

91.13 - Watch straps, watch bands and watch bracelets, and parts thereof.

This heading covers all kinds of watch straps, watch bands and watch bracelets, i.e., all devices for fastening watches to the wrist.

Watch straps, watch bands and watch bracelets may be of any material, for example, base metal, precious metal, leather, plastics or textile material. They may also be clearly decorative in character without this affecting their classification.

The heading also includes parts of watch straps, watch bands and watch bracelets, identifiable as such, of any material.

(Emphasis added).

Thus, the EN to heading 91.13 clarifies that the heading covers watch straps, watch bands and watch bracelets and all devices for fastening watches to the wrist. Furthermore, they may be of any material and may provide decorative character. The heading also includes parts of watch straps, bands and bracelets. The Apple Watch Bands are described by the EN to heading 91.13 because they are bands that fasten the Apple Watch to the user's wrist, are composed of various materials and can provide decorative character.

Based on the foregoing, we find that the Apple Watch Bands are classifiable in heading 9113 HTSUS. Consequently, they are excluded from classification in heading 8517 by virtue of Note 1(n) to Section XVI, HTSUS.

## **HOLDING:**

By application of GRI 1, the Apple Watch Bands are classified in heading 9113 HTSUS. Specifically, the Watch Bands of fluroelastomer and bovine leather are classified in subheading 9113.90.80, which provides for "Watch straps, watch bands and watch bracelets, and parts thereof: Other: Other." The column one, general rate of duty is 1.8% ad valorem. The Watch Bands of stainless steel are classified in subheading 9113.20, which provides for "Watch straps, watch bands and watch bracelets, and parts thereof: Of base metal, whether or not gold- or silver-plated." The column one, general rate of duty is 11.2% ad valorem. Duty rates are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at [www.usitc.gov](http://www.usitc.gov).

You are to mail this decision to the importer of record no later than 60 days from the date of the decision. At that time, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP Home Page on the World Wide Web at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H273382  
January 3, 2017

CLA-2 OT:RR:CTF:TCM H273382 PTM

CATEGORY: Classification

TARIFF NO: 8517.62.00

Neil Helfand  
Sandler, Travis & Rosenberg, P.A.  
505 Sandsome St., Suite 1475  
San Francisco, CA 94111

RE: Tariff Classification of Garmin VivoActive HR and VivoSmart HR

Dear Mr. Helfand,

We are writing in response to your correspondence dated January 13, 2016, in which you request a binding ruling from U.S. Customs & Border Protection (“CBP”) on behalf of your client Garmin Ltd. (“Garmin”). Your ruling request concerns the tariff classification of the Garmin VivoActive HR and VivoSmart HR on the Harmonized Tariff Schedule (“HTSUS”). In our evaluation, we also considered your supplemental submission dated March 9, 2016.

**FACTS:**

You request a classification of two separate products: the Garmin VivoActive HR (herein “VivoActive”) and the VivoSmart HR/HR+ (herein “VivoSmart”). We discuss each in turn.

The VivoActive is described as a Global Position System (“GPS”) smartwatch with wrist-based heart rate.<sup>1</sup> The VivoActive is worn on a user’s wrist and designed to manage data and support personal fitness. Garmin states that the VivoActive is a multifunctional electronic wearable device which pairs with a smartphone or tablet (herein a “smart device”), and that features enhanced capability. The VivoActive pairs with a smart device via a radio Bluetooth transceiver. While paired with the smart device, the VivoActive can notify the user of incoming calls, preview emails, issue calendar alerts, receive texts and social media updates, and play stored music from the host device. The user is able to track health and fitness-related activities recorded by the device and can view the data on an application (“app”) on the smart device. The data that can be tracked by the VivoActive are the user’s heart rate, number of steps, calories burned, floors climbed, activity intensity and sleep quality. You state that Garmin employs a

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<sup>1</sup> See <https://buy.garmin.com/en-US/US/intosports/health-fitness/vivoactive-hr/prod538374.html>.

cloud-based system called “Garmin Connect.” Garmin Connect is an online training tool to store, analyze and share users’ fitness activities. The VivoActive also contains a barometric altimeter, a 3-axis accelerometer, a light sensor and magnetometer. It also functions as a watch, and can display the time and date when other options are not in use.

The user can download apps to the VivoActive by purchasing them through the “Connect IQ” store, which is Garmin’s app marketplace. The user can download an app created either by Garmin or a third party by using the Garmin Connect app. By selecting the application of their choice, the paired smart device then transfers the data for the application directly to the device via the Bluetooth connection. Several of the apps require an active Bluetooth connection to the smart device to which the VivoActive is paired in order to perform. Through Garmin Connect, the devices can input data to other fitness apps, such as the popular “MyFitnessPal.”

The VivoSmart is available in two versions, the VivoSmart HR and VivoSmart HR+. The VivoSmart is an electronic device that is worn on a person’s wrist and designed to manage data and support personal fitness. The VivoSmart HR+ features GPS capability, the VivoSmart HR does not. The VivoSmart is a multifunctional device that pairs with a smartphone or tablet. The major functions of the device, while paired with a smart device, include notification of calls, email previews, calendar alerts, receiving texts, updates on social media, streaming music stored from the host device. The VivoSmart is designed and marketed to make use of the Garmin Connect system using the Garmin Connect app on a smart device, and through it the user can track health and fitness-related activities recorded by the VivoSmart. The VivoSmart also displays the biometric and activity data it captures. That data includes: heart rate, steps taken, calories burned, floors climbed, activity intensity and sleep quality. The VivoSmart also functions as a watch, and displays the time, day and date.

#### **ISSUE:**

What is the tariff classification of the VivoActive and VivoSmart devices?

#### **LAW AND ANALYSIS:**

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (GRIs). GRI 1 requires that classification be determined first according to the terms of the heading of tariff schedule and any relative section or chapter notes, and unless otherwise required, according to the remaining GRIs taken in their appropriate order.

GRI 3 provides as follows:

When, by application of rule 2(b) or for any other reason, good are, *prima facie*, classifiable under two or more headings, classification shall be effected as follows:

- (a) The heading which provides the most specific description shall be preferred to headings providing a more general description. However, when two or more headings each refer to part only of the materials or substances contained in mixed or composite goods or to part only of the items in a set put up for retail sale, those headings are to be regarded as

equally specific in relation to those goods, even if one of them gives a more complete or precise description of the goods.

- (b) Mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale, which cannot be classified by reference to 3(a), shall be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.
- (c) When goods cannot be classified by reference to 3(a) or 3(b), they shall be classified under the heading which occurs last in numerical order among those which equally merit consideration.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System. While not legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized System and are generally indicative of the proper interpretation of these headings. *See* T.D. -80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The ENs to GRI 3(b) provide, in pertinent part, that:

(VII) In all these cases the goods are to be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.

(VIII) The factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods.

The HTSUS provisions under consideration in this case are as follows:

8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof:

\* \* \*

8526 Radar apparatus, radio navigational aid apparatus and radio remote control apparatus:

\* \* \*

9029 Revolution counters, production counters, taximeters, odometers, pedometers and the like; speedometers and tachometers, other than those of heading 9014 or 9015;

\* \* \*

9031 Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof:

\* \* \*

9102 Wrist watches, pocket watches and other watches, including stop watches, other than those of heading 9101:

The ENs to GRI 3(b) provide, in pertinent part, that:

- (VII) In all these cases the goods are to be classified as if they consisted of the material or component **which gives them their essential character**, insofar as this criterion is applicable.
- (VIII) The factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods.

Upon examination and consideration of the characteristics and functions of both the VivoActive and VivoSmart, CBP finds that the commercial identity of these products are *prima facie* different from wrist watches and other watches described by heading 9102, HTSUS. Specifically, the VivoActive and VivoSmart feature components such as a Bluetooth transceiver, visual display, accelerometer and heart rate monitor that are uncommon to articles of heading 9102 HTSUS. Although the VivoActive and VivoSmart are capable of displaying time and date, they are not primarily intended to be used as a watch. The VivoActive and VivoSmart are designed primarily as devices to monitor and track biometric data and fitness activity, and are marketed as such. Consequently, we find that the VivoActive and VivoSmart differ substantially from the articles described by heading 9102, and cannot be classified under that heading by application of GRI 1.

The VivoActive and VivoSmart are comprised of several component articles that are *prima facie* classifiable under two or more headings. Heading 8517 HTSUS describes the radio Bluetooth transceiver. Heading 8526 HTSUS describes the GPS in the VivoActive and VivoSmart HR+ products (the base VivoSmart model does not contain a GPS). Heading 9029 HTSUS describes the heart rate monitor. Heading 9031 describes the accelerometer. Because the VivoActive and VivoSmart are *prima facie* classifiable under more than one heading, GRI 3 is implicated. Specifically GRI 3(b) directs that composite goods made up of different components shall be classified as if they consisted of the material or component that gives them their essential character.

GRI 3(b) covers mixtures, composite goods, and goods put up in sets for retail sale. For purposes of this rule, Explanatory Note IX to GRI 3(b) provides that, “composite goods made up of different components shall be taken to mean not only those in which the component are

attached to each other to form a practically inseparable whole but also those with separable components, **provided** these components are adapted one to the other and are mutually complementary and that together they form a whole which would not normally be offered for sale in separate parts.” (Emphasis original). As such, the VivoActive and VivoSmart devices are properly described as composite goods because they consist of electrical components of independent, individual function that are attached to each other to form an inseparable whole.

Under GRI 3(b), composite goods must be classified according to the material or component that imparts the article with its essential character. The “essential character” of an article is “that which is indispensable to the structure, core or condition of the article, i.e., what it is.” *Structural Industries v. United States*, 360 F. Supp. 2d 1330, 1336 (Ct. Int’l Trade 2005). EN VIII to GRI 3(b) explains that “[t]he factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of the constituent material in relation to the use of the goods.” Recent court decisions on the essential character for GRI 3(b) purposes have looked primarily to the role of the constituent material in relation to the use of the goods. See *Estee Lauder, Inc. v. United States*, 815 F. Supp. 2d 1287, 1296 (Ct. Int’l Trade 2012); *Structural Industries*, 360 F. Supp. 2d 1330; *Conair Corp. v. United States*, 29 C.I.T. 888 (2005); *Home Depot USA, Inc. v. United States*, 427 F. Supp. 2d 1278 (Ct. Int’l Trade 2006), aff’d 491 F.3d 1334 (Fed. Cir. 2007).

Based on the meaning of “essential character” under GRI 3(b), we find that the VivoActive and VivoSmart devices are primarily used to wirelessly connect and communicate with a paired smart device. Using the Garmin Connect App installed on the paired smart device, the VivoActive and Vivosmart uses an open wireless technology standard (Bluetooth), to transmit data to and from the wearable device. While paired via the Bluetooth connection, the VivoActive and VivoSmart can notify the user of incoming calls, preview emails, issue calendar alerts, receive texts and social media updates, and play stored music from the host device. The user is able to track health and fitness-related activities recorded by the device and can view the data on the paired smart device on the associated app. The data that can be tracked by the VivoActive and VivoSmart are heart rate, number of steps, calories burned, floors climbed, activity intensity and sleep quality. The VivoActive and VivoSmart can track and display biometric and exercise data while unpaired, however, it is only through the app and smart device that a user can track this data over time or use GPS associated functionality, such as mapping a run. The data transmitted from the devices cannot be used by other fitness apps such as MyFitness Pal without the data being transmitted to the paired smart device via a Bluetooth connection. Consequently, we find that the VivoActive and VivoSmart are substantially similar to other wearable smart devices that CBP has classified under heading 8517 HTSUS. For example, in HQ H260060 (July 14, 2015), CBP classified the Apple Smart watch under heading 8517 HTSUS. Similarly, in HQ H257947 (July 14, 2015), CBP classified the “Samsung Gear Live Android Smartwatch” in heading 8517 HTSUS. See also, HQ H265038 (Feb. 23, 2016).

Upon evaluation of the form and function of each of the VivoActive and VivoFit components, CBP finds that the essential character of the device is imparted by its wireless communication capabilities, which are described under heading 8517, HTSUS, as “Other apparatus for the transmission or reception of voice, images, or other data[...] including

apparatus for communication in a wired or wireless network[...].” Consequently, by application of GRI 3(b), the VivoActive and VivoSmart are classified in heading 8517, HTSUS, specifically in subheading 8517.62.

Similarly, CBP notes that the Harmonized System Committee (HSC) of the World Customs Organization (WCO) recently considered the tariff classification of four “smart watch” devices and classified each of the devices under subheading 8517.62, HS. See Annex H/7 to Doc. NC2116E1b (HSC/55). As stated in T.D. 89-90, CBP accords HSC opinions the same weight as that of Explanatory Notes, *i.e.*, while neither legally dispositive or binding, classification decisions of the HSC are generally indicative of the proper interpretation of HS headings. Accordingly, CBP observes that the conclusions reached in this ruling are consistent with the HSC’s classification of certain smart devices, as reflected in the WCO Compendium of Classification Opinions (C.O.) at C.O. 8517.62/21, 8517.62/22, 8517.62/23, and 8517.62/24.

## **HOLDING:**

By application of GRI 3(b), the VivoActive and VivoSmart are classified in heading 8517, HTSUS. Specifically, they are classified in subheading 8517.62.00, HTSUS, which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network); Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus.” The 2016 column one, general rate of duty for merchandise of subheading 8517.62.00, HTSUS, is *free*.

Duty rates are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <http://www.usitc.gov/>.

Sincerely,

Ieva K. O’Rourke, Chief  
Tariff Classification and Marking Branch

**January 3, 2017**

**HQ H267791**

**CLA-2 OT:RR:CTF:TCM H267791 TSM**

**CATEGORY:** Classification

**TARIFF NO.:** 8419.40.00

Mr. Michael Leightman  
Ernst & Young LLP  
5 Houston Center, Suite 1200  
1401 McKinney Street  
Houston, TX 77010

RE: The tariff classification of an ethane processing plant

Dear Mr. Leightman,

This is in response to your request, on behalf of your client, Sasol Chemicals (USA), LLC, dated August 4, 2015, for a tariff classification ruling regarding an ethane processing plant.<sup>1</sup>

**FACTS:**

The subject merchandise is an ethane processing plant - a large scale chemical plant which, once put into operation, will produce ethylene and other products from an ethane feedstock. It will contain various interconnected units and subunits. The subunits of the ethane processing complex will include Steam Cracking Furnaces, a Quench Tower, a Caustic Wash Tower, driers, a high pressure Deethanizer, an Acetylene Hydrogenation Vessel, a Demethanizer System featuring a C2 splitter, a Depropanizer, a Debutanizer, an Engine Compressor, and reactors in which chemical reactions occur via the introduction of a reactant and the application of heat. The plant will also contain typical process equipment including vessels, drums, exchangers, pipe and piping components, utilities, and instrumentation. These

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<sup>1</sup> In your ruling request, you state that the ethane processing complex consists of various parts that will be assembled in a Foreign Trade Zone (FTZ). We note that this ruling does not address whether any of the equipment at issue falls under the exceptions provided by the Foreign Trade Zones Act of 1934, as amended (48 Stat. 998; 19 U.S.C. 81a through 81u).

subunits operate as a single, highly integrated process unit with extensive internal energy integration.

The plant subjects ethane gas to a molecular conversion and a series of separation reactions prior to the distillation processes. In the first separation reaction, the cracker furnace cracks ethane feedstock molecules by exposing them to high temperatures. Next, the quenching tower separates contaminants from the ethane and ethylene by cooling them through direct contact with cold water. The gas component of the stream continues through a series of compressors and heat exchangers to remove impurities. Next, the gas stream goes through a Caustic Wash Tower. The caustic is introduced and absorbs additional impurities. Once the caustic is expelled, the stream is exposed to a propylene refrigerant. The stream then passes through a separator vessel, where the water is separated from the stream and absorbed in a drier.

After the initial separation processes are complete, the plant subjects the stream to a purification process involving distillation, evaporation and condensation. The stream undergoes fractionalization in a deethanizer tower. Fractionalization is similar to simple distillation except that a fractionating column is placed between the boiling column and the condenser. The stream is then sent to the depropanizer and debutanizer for distillation. The stream continues to the Acetylene Hydrogenation vessel and is sent to the demethanizer for fractionalization. The stream is then sent to the C2 Splitter Fractionation tower for distillation and compression, resulting in a purified ethylene.

The purified ethylene is processed within subsequent units. For instance, to produce low density polyethylene, some purified ethylene is compressed in an engine compressor. The stream of purified ethylene may undergo a reaction process, which produces low density polyethylene. Also, the purified ethylene may undergo the Ziegler Alcohol Production Process. This process involves various distillation towers in which the feed is separated into a number of products. A portion of the resulting product is sent to undergo a reaction process that results in a series of ethoxylates. The remaining product is further purified by a distillation process and results in Guerbert Alcohols.

## **ISSUE:**

What is the proper tariff classification of the ethane processing plant?

## **LAW AND ANALYSIS:**

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

In addition, in interpreting the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).

The HTSUS provisions under consideration are as follows:

8419       Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof:

8419.40.00       Distilling or rectifying plant

Note 4 to Section XVI, HTSUS, in which Chapter 84 is located, provides that:

Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.

Explanatory Note 84.19 explains that:

[T]he heading covers machinery and plant designed to submit materials ... to a heating or cooling process in order to cause a simple change of temperature, or to cause a transformation of the materials resulting principally from the temperature change (e.g., ... evaporating, vaporizing, ...processes). But the heading **excludes** machinery and plant in which the heating or cooling, even if essential, is merely a secondary function designed to facilitate the main mechanical function of the machine or plant [.]

\*     \*     \*     \*

## (II) DISTILLING OR RECTIFYING PLANT

With the **exception** of distillation apparatus of ceramics (**heading 69.09**) or of glass (**heading 70.17 or 70.20**), this group comprises all plant designed for distilling substances (whether liquid or solid).

\* \* \* \*

**(B) Fractionating or rectifying plant.**

These are more complicated continuous installations incorporating vertical fractionating columns which enable complex mixtures to be separated in one operation. The most usual type of column is divided into interconnecting sections by plates fitted with bubbling caps and down-flow tubes. Vapour rising from one section is thus brought into intimate contact with a condensed portion of the vapour in the section above and, since the temperature decreases as the vapours rise in the column, they can be separated at different levels corresponding to their boiling points.

\* \* \* \*

Continuous distillation plant (simple or fractional) is used in many industries (e.g., for the distillation of ...liquid air...).

You state that the ethane processing plant at issue is a combination of integrated units consisting of individual components connected by piping that combine together to a clearly defined function covered by a heading in Chapter 84, HTSUS.

Note 4 to Section XVI, HTSUS, provides for the classification in a single heading of a combination of machines which together contribute to a single clearly defined function. The subject ethane processing plant will include various interconnected units and subunits, which together distill ethane feedstock to produce purified ethylene and other products. The purification of the ethane streams that occurs within the plant results from a process involving distillation, evaporation and condensation once the initial separation processes are complete.

As referenced above, in the instant case the individual interconnected units are the following: deethanizer tower, depropanizer, debutanizer, demethanizer, C<sub>2</sub> splitter fractionation tower, engine compressor, distillation towers, cracker furnace, quenching tower, compressors, heat exchangers, caustic wash tower and separator vessel. In the instant case, the individual units are classifiable in their own respective HTSUS provisions when imported separately. However, once assembled into the subject ethane processing complex, they contribute to a single clearly defined function of fractionation and distillation of gasses through changes in temperature. Fractionating and-rectifying machinery are provided for *eo nomine* in heading 8419, HTSUS, and are described in EN 84.19.

Based on the function of the ethane processing complex at issue, we find that it is classified in heading 8419, HTSUS. See Headquarters Ruling Letter (“HQ”) 952810, dated December 9, 1992 (when imported together, an incubator and gas mixture apparatus is a functional unit because the collection of machinery contributed to a clearly defined function, described within the terms of heading 8419, HTSUS). See also HQ H062209, dated August 10, 2009 (when imported together, machines comprising a rare gases purification plant, contributing to a single clearly defined function of gases fractionation, are classified in heading 8419, HTSUS).

Accordingly, provided that all the components of the subject ethane processing plant are part of a single entry, they are classified under subheading 8419.40.0080, HTSUS, which provides for “Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof: Distilling or rectifying plant: Other.”

## **HOLDING:**

By application of GRI 1, the ethane processing complex at issue, when entered in its entirety, is classified under heading 8419, HTSUS, and is specifically provided for in subheading 8419.40.00, HTSUS, which provides for “Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof: Distilling or rectifying plant.” The 2016 column one, general rate of duty is Free.

Duty rates are provided for convenience only and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/). A copy of this ruling letter should be attached to entry documents filed at the time the goods are entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Ieva K. O'Rourke, Chief  
Tariff Classification and Marking Branch

HQ H276954  
January 3, 2017

OT:RR:CTF:TCM H276954 PTM

CATEGORY: Classification

TARIFF NO: 9113.20; 9113.90

Stephen T. Heller  
Import Compliance Sr. Specialist  
Best Buy  
7601 Penn Ave. S.  
Richfield, MN 55423

RE: Tariff Classification of Apple Watch Bands

Dear Mr. Heller,

We are writing in response to your request for a binding ruling, dated January 5, 2016, that you sent to the U.S. Customs & Border Protection's ("CBP") National Commodity Specialist Division ("NCSD"), which NCSD subsequently forwarded to our office. The request concerns the tariff classification on the Harmonized Tariff Schedule of the United States ("HTSUS") of bands for the Apple Watch. Our response follows.

**FACTS:**

The merchandise at issue are various watch bands for the Apple Watch. The Apple Watch is a "smart watch" that pairs with a user's iPhone via a Bluetooth® connection to perform various functions. In Headquarters Ruling ("HQ") H260060 we described the Apple Watch as follows:

The Apple Watch is a battery-operated, wearable electronic device in the form of a wrist-watch, incorporating a touch-sensitive, active-matrix organic light-emitting diode (AMOLED) display, a central processing unit (CPU), random access memory (512MB RAM), a 8GB internal flash memory hard drive, microphone, speaker, vibration motor, accelerometer, gyroscope, heart rate sensor, and a radio transceiver (NFC, Bluetooth® 4.0, and Wi-Fi).

\* \* \*

When the Apple Watch is “paired” with an iPhone, the wearer is able to use apps on the Apple Watch to display, manipulate, and store data on the Apple Watch itself, or on the connected iPhone. The Apple Watch apps communicate wirelessly with the WatchKit extension on the iPhone and are capable of performing a variety of functions, including: receiving and responding to electronic communications, tracking fitness, displaying location-based information and directions, accessing Internet data, sending and receiving audio messages, paying for purchases using Apple Pay™ via NFC wireless connections, displaying airplane boarding passes, and controlling an Apple TV®. See “Apple Unveils Apple Watch—Apple’s Most Personal Device Ever,” [www.apple.com/pr/library/2014/09/09Apple-Unveils-Apple-Watch-Apples-Most-Personal-Device-Ever.html](http://www.apple.com/pr/library/2014/09/09Apple-Unveils-Apple-Watch-Apples-Most-Personal-Device-Ever.html) (last visited June 17, 2015).

Although the Apple Watch must be paired with an iPhone to perform most functions, the Apple Watch is capable of performing several functions without being connected to an iPhone. “Unpaired” functions of the Apple Watch include: playing music stored locally on the Apple Watch; using watch, alarm, timers, and time functions; keeping track of physical activities and exercise; displaying photos stored locally on the Apple Watch; and using Apple Pay™ to make purchases via NFC wireless connections. See “Use Apple Watch without its paired iPhone,”

You state that Best Buy Purchasing LLC (“Best Buy”) imports bands for the Apple Watch under Best Buy’s Brand names: Modal, Modal Sports and Modal Platinum. The bands will be sold in various colors and materials. The “Modal Band” is a pebbled leather band made of top grain leather with a metal buckle. The “Modal Sports Band” is a plastic watch band with a thermoplastic polyurethane bumper to enclose the watch face. The “Platinum Band” is a band made of stainless steel metal mesh and contains an adjustable lock closure. The bands are available in several lengths and widths. Further, you state that the bands cannot be used for other types of traditional watches or smart watches.

The Apple Watch is similar in size to conventional wrist-watches. Further, it is worn by the user in the same manner as a conventional wrist-watch. The Apple Watch bands perform the same function as the watch band or strap of a conventional wrist watch: it attaches the watch to the user’s wrist. You state that unlike traditional wrist watches, much of the Apple Watch’s functionality comes from being attached to the wrist and reading the wearer’s biometrics and giving the wearer tactile notifications via the wrist. Indeed, the Apple Watch has various functions that require that the watch be affixed to the user’s wrist. The watch has activity tracking functionality that measures the user’s activity levels. It can measure how many calories a user burns and the user’s heartrate. The “taptic” functionality provides the user with notifications by “tapping” the user’s wrist. The watch will not go into standby mode so long as it is affixed to the user’s wrist. Otherwise, the user must input a security code in order to unlock it. Functions such as “Apple Pay” will not work while the watch is in standby mode. The watch has a power-saving function that powers the watch off when it is not oriented towards the user’s view. Other functions do not require the Apple Watch to be on the user’s wrist. These include displaying the time and date, playing music, connecting to the internet and displaying photos.

**ISSUE:**

What is the tariff classification of the Apple Watch bands?

**LAW AND ANALYSIS:**

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, GRIs 2 through 6 may then be applied in order.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While not legally binding, and therefore not dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized System and are thus useful in ascertaining the classification of merchandise under the System. See T.D. 89-80, 54 Fed. Reg. 35127 (Aug. 23, 1989).

The HTSUS provisions under consideration are as follows:

8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof:

8517.70                  Parts

\*                  \*                  \*

9113 Watch straps, watch bands and watch bracelets, and parts thereof:

Note 1(n) to Section XVI, HTSUS, which includes heading 8517 states:

1. This section does not cover:  
(n) Clocks, watches or other articles of chapter 91;

Thus, if the Apple Watch Bands are classifiable in Chapter 91, then they are excluded from classification in heading 8517 by virtue of Note 1(n) to Section XVI.

Note 1(g) to Chapter 91, HTSUS, provides:

1. This chapter does not cover:

- (g) Articles of chapter 85, not yet assembled together or with other components into watch or clock movements or into articles suitable for use solely or principally as parts of such movements (chapter 85).

With respect to Note 1(g) to Chapter 91, the Apple Watch Bands at issue here are simple bands designed to hold the Apple Watch on the user's wrist and therefore cannot be characterized as electrical machinery and equipment or parts thereof that are assembled together into a watch or clock movements, or into articles suitable for use solely or principally as parts of such movements. Thus, the Apple Watch Bands are not excluded from classification in Chapter 91 HTSUS by virtue of Note 1(g).

In HQ H260060, CBP classified the Apple Watch in subheading 8517.62.00, HTSUS, which provides for, "Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus." In reaching this classification, CBP applied GRI 3(b) because the Apple Watch was found to be a composite good consisting of several components that were *prima facie* classifiable in different headings. CBP found that the essential character of the Apple Watch is imparted by the radio transceiver because it enables the Apple Watch to be paired with the Apple iPhone and run various applications. Consequently, it is your position that the Bands are appropriately classified as parts of the Apple Watch in heading 8517 HTSUS, rather than in heading 9113 HTSUS, which provides *eo nomine* for watch bands and straps.

In support of your position, you state that the Bands are specifically designed for use with the Apple Watch, and that the Apple Watch cannot properly function without the Bands. In order for the Apple Watch to measure activity levels, it must be affixed to the wrist of the user to measure heart rate. The taptic functionality of the Apple Watch also requires that the Watch be affixed to the wrist. The Apple Watch will not go into standby mode when it is attached to the user's wrist.

However, the Apple Watch does function as a watch and comes "in the form of a wrist-watch." See HQ H260060, *supra*. Furthermore, the Apple Watch will still perform numerous functions while not affixed to the user's wrist. The Watch can still display the time, play music, surf the internet, respond to text messages and emails, perform as a clock-alarm on Night Stand Mode<sup>1</sup> and run various other applications. The Bands themselves do not perform any of these functions. Rather, they serve solely to keep the Apple Watch affixed to the user's wrist in the same manner that watch bands affix traditional watches to users' wrists. Furthermore, as stated in HQ H260060, CBP determined that the radio transceiver imparted the essential character of

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<sup>1</sup> See "Use Nightstand Mode on Your Apple Watch" available at <https://support.apple.com/en-us/HT205045>.

the device. The Apple Watch Bands do not assist the transceiver in the Apple Watch in any way from pairing with the user's iPhone. Therefore, they cannot be said to be an indispensable part of the transceiver and an essential part of the Apple Watch.

By contrast, CBP has previously classified similar bands for the Apple Watch in heading 9113 HTSUS. In HQ H270725 (Nov. 7, 2016), we classified Apple Watch bands in heading 9113 HTSUS. In that case, we also rejected the importer's position that the bands should be classified in heading 8517 as parts of the Apple Watch. The bands at issue here are nearly identical to the bands that were the subject of H270725, the only difference being that the instant bands are imported and marketed under Best Buy's brand name. Furthermore, in New York Ruling ("NY") N263082, dated April 17, 2015, CBP classified watch bands designed for use with smart-watches in heading 9113. Notably, the ruling classified several bands intended for use with the Apple Watch in various subheadings of heading 9113 depending on the component material.

The EN to heading 91.13 adds further support for classifying the Bands in heading 9113. It states:

91.13 - Watch straps, watch bands and watch bracelets, and parts thereof.

This heading covers all kinds of watch straps, watch bands and watch bracelets, i.e., all devices for fastening watches to the wrist.

Watch straps, watch bands and watch bracelets may be of any material, for example, base metal, precious metal, leather, plastics or textile material. They may also be clearly decorative in character without this affecting their classification.

The heading also includes parts of watch straps, watch bands and watch bracelets, identifiable as such, of any material.  
(Emphasis added).

Thus, the EN to heading 91.13 clarifies that the heading covers watch straps, watch bands and watch bracelets and all devices for fastening watches to the wrist. Furthermore, they may be of any material and may provide decorative character. The heading also includes parts of watch straps, bands and bracelets. The Apple Watch Bands are described by the EN to heading 91.13 because they are bands that fasten the Apple Watch to the user's wrist, are composed of various materials and can provide decorative character.

Based on the foregoing, we find that the Modal, Modal Sport and Modal Platinum Apple Watch bands are classifiable in heading 9113, HTSUS. Consequently, they are excluded from classification in heading 8517 by virtue of Note 1(n) to Section XVI, HTSUS.

**HOLDING:**

By application of GRI 1, the Apple Watch Bands are classified in heading 9113 HTSUS. Specifically, the Modal and Modal Sports bands of bovine leather and plastic, respectively, are classified in subheading 9113.90.80, which provides for “Watch straps, watch bands and watch bracelets, and parts thereof: Other: Other.” The column one, general rate of duty is 1.8% ad valorem. The Modal Platinum band of stainless steel is classified in subheading 9113.20, which provides for “Watch straps, watch bands and watch bracelets, and parts thereof: Of base metal, whether or not gold- or silver-plated.” The column one, general rate of duty is 11.2% ad valorem. Duty rates are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at [www.usitc.gov](http://www.usitc.gov).

Sincerely,

Ieva K. O'Rourke, Chief  
Tariff Classification and Marking Branch



HQ H278604

May 7, 2021

**CLA-2 OT:RR:CTF:EMAIN H278604 SKK**

**CATEGORY:** Classification

**TARIFF NO.:** 8537.10.91

Ms. Amy Hess  
Problem Solvers Ltd.  
11205 S. La Cienega Blvd.  
Los Angeles, CA 90045

**RE:** Request to reconsider NY N255515; Classification of D-Link Wi-Fi smart plugs.

Dear Ms. Hess:

This is in response to your correspondence of July 25, 2016 in which you request reconsideration of New York Ruling Letter (NY) N255515, issued to your client, D-Link Systems, Inc., on August 21, 2014. In NY N255515, CBP classified two types of D-Link articles: Wi-Fi-enabled smart plugs and motion sensors. This reconsideration is limited to the Wi-Fi-enabled smart plugs. No sample was submitted with your reconsideration request.

In NY N255515, U.S. Customs and Border Protection (CBP) classified D-Link Wi-Fi-enabled smart plugs under heading 8537, Harmonized Tariff Schedule of the United States (HTSUS), specifically subheading 8537.10.90, HTSUS (2014), which provides for “[B]oards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity including those incorporating instruments or apparatus of chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517: For a voltage not exceeding 1,000 V: Other.”\*

We have reviewed NY N255515 as it pertains to the classification of the subject Wi-Fi-enabled smart plugs and have determined that the ruling is correct. For the reasons set forth below, we are affirming that portion of NY N255515 pertaining to Wi-Fi-enabled smart plugs.

The subject smart plugs at issue in NY N255515 are described as the D-Link Wi-Fi Smart Plug Lite (model number DSP-W110) and the D-Link Wi-Fi Smart Plug (model number DSP-W215). Both are described as Wi-Fi-enabled switches that connect a user's home appliances and electronic devices to a Wi-Fi network, allowing the user to turn devices on and off via a mobile app. Both plugs consist of a three-pronged electrical socket and plug, lighted

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\* The successor HTSUS provision is presently subheading 8537.10.91, HTSUS.

power on/off button, reset button, Wireless Protected Setup (WPS) button (to connect to the home network), and status LED. Internally, the plugs are equipped with two printed circuit board assemblies (PCBAs). The AC/DC converter PCBA contains two relays and the components necessary to convert 120VAC to 12VDC for the RF PCB assembly to operate. The radio frequency (RF) PCBA contains the embedded processor/receiver and antenna, on/off switch, and reset switch. WPS and wireless communication functionalities reside on the RF PCB assembly. Both units allow users to send a command via smart phone or similar device through the “mydlink Home App” to connected appliances. The two Smart Plugs operate similarly except the D-Link Wi-Fi Smart Plug (model number DSP-W215) has the additional features of alert notification, power consumption reporting, and a built-in thermal protection feature that de-energizes the connected appliance when overloaded.

In your request for reconsideration, you propose classification in heading 8536, HTSUS, which provides for “[E]lectrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits (for example, switches, relays, fuses, surge suppressors, plugs, sockets, lamp-holders and other connectors, junction boxes), for a voltage not exceeding 1,000 V; connectors for optical fibers, optical fiber bundles or cables: parts of other surgical instruments.” You submit that the relay is controlled by the central processing unit (CPU), which uses Wi-Fi signals received through the antenna communicating wirelessly with the user’s mobile app to remotely instruct the CPU to energize the electromechanical relay to turn household appliances on/off.

Classification of goods under the HTSUS is governed by the General Rules of Interpretation (GRI). GRI 1 provides that classification is determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. If the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRI may then be applied.

Notes 4 and 5 of Section XVI, HTSUS, in which heading 8537 falls, state:

4. Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.
5. For the purposes of these notes, the expression "machine" means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of chapter 84 or 85.

The Explanatory Notes (ENs) to the Harmonized Commodity Description and Coding System represent the official interpretation of the tariff at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. *See* T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989). The EN to heading 85.37 states:

These consist of an assembly of apparatus of the kind referred to in the two preceding headings (e.g., switches and fuses) on a board, panel, console, etc., or mounted in a cabinet,

desk, etc. They usually also incorporate meters, and sometimes also subsidiary apparatus such as transformers, valves, voltage regulators, rheostats or luminous circuit diagrams.

The goods of this heading vary from small switchboards with only a few switches, fuses, etc. (e.g., for lighting installations) to complex control panels for machine-tools, rolling mills, power stations, radio stations, etc., including assemblies of several of the articles cited in the text of this heading.

The subject smart plugs function primarily to control electrical current to connected devices. The components that perform this function, i.e., switches, relays, fuses, contacts, plugs, and sockets, are provided for in headings 8535 and 8536, HTSUS. The subject smart plugs are therefore classified in heading 8537, HTSUS, which provides for “boards, panels … or other bases, equipped with two or more apparatus of headings 85.35 or 85.36, for electrical control or the distribution of electricity… .” We further note that any features not described by headings 8535, 8536 or 8537, HTSUS, for example, the monitoring of power consumption, are considered ancillary to the smart plugs’ primary function of switching and protecting electrical circuits and therefore not taken into consideration for classification purposes. *See* Headquarters Ruling Letter (HQ) H283180, dated January 21, 2020 and NY N273912, dated April 13, 2016, in which CBP classified substantially similar articles in subheading 8537.10.91, HTSUS.

Based on the foregoing, we hereby affirm NY N255515 as regards the classification of the D-Link Wi-Fi Smart Plug Lite (model number DSP-W110) and the D-Link Wi-Fi Smart Plug (model number DSP-W215). The subject Wi-Fi-enabled smart plugs remain classified in heading 8537, HTSUS, specifically subheading 8537.10.91, HTSUS, which provides for “[B]boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity including those incorporating instruments or apparatus of chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517: For a voltage not exceeding 1,000 V: Other: Other.”

Please be advised that CBP intends to initiate a notice and comment procedure pursuant to 19 U.S.C. 1625(c) to reconsider NY N255515 as regards the classification of the Wi-Fi infrared motion sensors. This matter has been assigned case number HQ H276956 and is assigned to Suzanne Kingsbury of this office. We welcome your comments on the proposed action that will be published in an upcoming issue of the Customs Bulletin, available for viewing at [www.cbp.gov](http://www.cbp.gov).

Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division

HQ H279898

April 5, 2017

CLA-2 OT:RR:CTF:TCM H279898 PTM

CATEGORY: CLASSIFICATION

TARIFF NO: 8517.62.00

Port Director  
U.S. Customs & Border Protection  
6747 Engle Road  
Middleburg Hts, OH 44130

RE: Protest No. 4101-2016-100262 ; Tariff Classification of various Fitbit wearable fitness trackers

Dear Port Director,

We are writing in response to your correspondence dated September 8, 2016, in which you forwarded us the above-referenced protest and application for further review (“AFR”) submitted by Fitbit, Inc. (“Fitbit”). The protest concerns the tariff classification of several different models of wearable fitness trackers on the Harmonized Tariff Schedule of the United States (“HTSUS”). In reaching our decision, we have incorporated the substance of our meeting with Fitbit on October 27, 2016, and Fitbit’s supplemental submission dated December 2, 2016. Samples of the Fitbit Charge, Fitbit Charge HR and Fitbit Surge were provided. Our response follows.

**FACTS:**

On April 15, 2015, Fitbit made entry on a shipment of various models of fitness trackers with CBP. Specifically, the shipment included models of the Fitbit Surge and the Fitbit Charge HR models. On February 26, 2016, CBP liquidated the entry. On April 22, 2016, CBP issued a Notice of Action notifying Fitbit that it was reclassifying the merchandise. On May 13, 2016, CBP re-liquidated the entry under subheading 9031.80.80 HTSUS, which provides for “Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof: Other instruments, appliances and machines: Other.” On June 28, 2016, Fitbit filed the instant protest.

Fitbit produces wirelessly-communicative, wearable electronic devices primarily designed to track various fitness and health related metrics. The Fitbit Charge, Charge HR and Surge are products in its line of devices. The devices are paired wirelessly to a smart phone or other internet-enabled device via a Bluetooth radio transceiver. In turn, the paired device communicates with Fitbit’s servers to interpret and display the data received. The paired device

must have the Fitbit application (“app”) downloaded to the smart device. Each of the Fitbit devices must be “set up” by pairing it with the smart device and entering the user’s profile on the app. During set up, the user enters information necessary for the proper functioning of the device. For example, the user’s height will determine stride length, which in turn will permit the Fitbit to determine how far the user has traveled. Other information entered includes which arm the user wears the device (dominant or non-dominant hand), weight (which is used to determine calories burned), which exercises the user plans to undertake and track, whether measurements will be taken using metric or imperial system, whether to display the time in 12 or 24 hour basis, and clock display pattern.

The Fitbit devices track the data while affixed to the user’s wrist. The Fitbit Charge measures steps taken, distance traveled, calories burned, active minutes, hourly activity stationary time and time slept.<sup>1</sup> When paired with a smart phone, the device will display the number of incoming calls. Through the Fitbit app, the Fitbit Charge can be programmed with an alarm that will cause it to buzz at the appropriate time. The Fitbit Charge HR adds heart-rate monitor functionality. The Fitbit Surge adds a Global Positon System (“GPS”) tracker, which permits the user track exercise routes, speed, and elevation climbed.

Most of the captured data can be viewed directly of the Fitbit device itself, or on the paired smart device after syncing wirelessly. Some of the data, such as sleep, is not displayed on the device and may be viewed only on the app. The app lets the user see your progress on-the go, and shows you detailed charts and graphs so you can track your trends over time. In order for the data to be interpreted and properly displayed, the raw data collected by the Fitbit device must be transmitted to Fitbit’s servers for processing, and then retransmitted back to the smart device and Fitbit products for display. While some of the data is viewable on the Fitbit device, all of the data that is collected and processed by Fitbit’s servers is viewable from a single interface such as the user’s dashboard on the Fitbit app or via the web at fitbit.com. *See Fig A.* For example, a user can tap a button on the Fitbit device to indicate when they have begun a workout. The device will monitor the length of time of the workout, calories burned, steps taken and elevation climbed. On the Fitbit App on the synced smart device, the user can see more detailed information concerning the workout. This data includes a graph readout of the workout indicating the highest and lowest periods of exertion as measured by heartrate. With the Fitbit Surge, the user can view a map route of their run or walk. *See Fig B.* Thus, while the user can get basic feedback concerning their workout on the device itself, a full evaluation requires the user to sync the device and view it on the App.

Fitbit offers social features that require the use of the App. For example, a user can find “friends” that also use Fitbit devices by cross-referencing the user’s contacts in their smart device or other social media platforms, such as Facebook. The users can then compete against one another or join in various challenges, such as who completes the most steps over a week. Other secondary features also require the Fitbit to sync with the smart device. Software updates are pushed to the paired smart device to the Fitbit. The Fitbit must be synced in order to maintain the proper time and date. For the Fitbit Surge, the device must be synced in order to play music from the smart device.

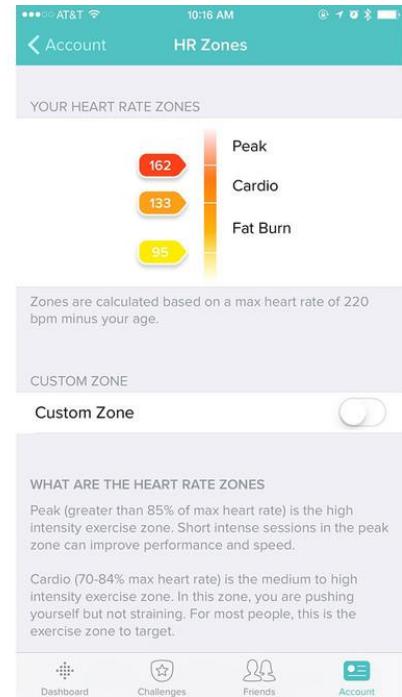
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<sup>1</sup> Fitbit Charge, available at <https://www.fitbit.com/charge>.

Fig A:



Fig B:



**ISSUE:**

What is the tariff classification of the Fitbit Charge, Fitbit Charge HR and Fitbit Surge?

**LAW AND ANALYSIS:**

Initially, we note that this matter is protestable under 19 U.S.C. §1514(a)(2) as a decision on classification. The protest was timely filed on June 28, 2016, within 180 days of the date of liquidation as required by 19 U.S.C. §1514(c)(3)(A). We note that CBP voluntarily reliquidated the initial liquidation of the entry within 90 days consistent with 19 U.S.C. §1501.

Further Review of Protest No. 4101-2016-100262 is properly accorded to the Protestant pursuant to 19 C.F.R. § 174.24(a) because the protested decision is alleged to be inconsistent with the ruling of the Commissioner of CBP or his designee, or with a decision made at any port with respect to the same or substantially similar merchandise. Specifically, Fitbit contends that that the classification of the instant merchandise is inconsistent with CBP's decisions in Headquarters Rulings ("HQ") H260060 (July 14, 2015), HQ H265035 (Jan. 19, 2016), and HQ H265038 (Feb. 23, 2016).

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, GRIs 2 through 6 may then be applied in order.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While not legally binding, and therefore not dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized System and are thus useful in ascertaining the classification of merchandise under the System. See T.D. 89-80, 54 Fed. Reg. 35127 (Aug. 23, 1989).

GRI 3 provides as follows:

When, by application of rule 2(b) or for any other reason, good are, *prima facie*, classifiable under two or more headings, classification shall be effected as follows:

- (a) The heading which provides the most specific description shall be preferred to headings providing a more general description. However, when two or more headings each refer to part only of the materials or substances contained in mixed or composite goods or to part only of the items in a set put up for retail sale, those headings are to be regarded as equally specific in relation to those goods, even if one of them gives a more complete or precise description of the goods.
- (b) Mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale, which cannot be classified by

reference to 3(a), shall be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.

- (c) When goods cannot be classified by reference to 3(a) or 3(b), they shall be classified under the heading which occurs last in numerical order among those which equally merit consideration.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System. While not legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized System and are generally indicative of the proper interpretation of these headings. *See* T.D. -80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The ENs to GRI 3(b) provide, in pertinent part, that:

(VII) In all these cases the goods are to be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.

(VIII) The factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods.

The HTSUS provisions under consideration are as follows:

8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof:

\* \* \*

8526 Radar apparatus, radio navigational aid apparatus and radio remote control apparatus:

\* \* \*

9029 Revolution counters, production counters, taximeters, odometers, pedometers and the like; speedometers and tachometers, other than those of heading 9014 or 9015;

\* \* \*

9031 Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof:

The Fitbit devices are comprised of several component articles that are *prima facie* classifiable under two or more headings. Heading 8517 HTSUS describes the radio Bluetooth transceiver. Heading 8526 HTSUS describes the GPS in the Fitbit Surge. Heading 9029 HTSUS describes the pedometer function. Heading 9031 describes the accelerometer. Because the Fitbit devices are *prima facie* classifiable under more than one heading, GRI 3 is implicated. Specifically GRI 3(b) directs that composite goods made up of different components shall be classified as if they consisted of the material or component that gives them their essential character.

GRI 3(b) covers mixtures, composite goods, and goods put up in sets for retail sale. For purposes of this rule, Explanatory Note IX to GRI 3(b) provides that, “composite goods made up of different components shall be taken to mean not only those in which the component are attached to each other to form a practically inseparable whole but also those with separable components, **provided** these components are adapted one to the other and are mutually complementary and that together they form a whole which would not normally be offered for sale in separate parts.” (Emphasis original). As such, the Fitbit devices are properly described as composite goods because they consist of electrical components of independent, individual function that are attached to each other to form an inseparable whole.

Under GRI 3(b), composite goods must be classified according to the material or component that imparts the article with its essential character. The “essential character” of an article is “that which is indispensable to the structure, core or condition of the article, i.e., what it is.” *Structural Industries v. United States*, 360 F. Supp. 2d 1330, 1336 (Ct. Int’l Trade 2005). EN VIII to GRI 3(b) explains that “[t]he factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of the constituent material in relation to the use of the goods.” Recent court decisions on the essential character for GRI 3(b) purposes have looked primarily to the role of the constituent material in relation to the use of the goods. See *Estee Lauder, Inc. v. United States*, 815 F. Supp. 2d 1287, 1296 (Ct. Int’l Trade 2012); *Structural Industries*, 360 F. Supp. 2d 1330; *Conair Corp. v. United States*, 29 C.I.T. 888 (2005); *Home Depot USA, Inc. v. United States*, 427 F. Supp. 2d 1278 (Ct. Int’l Trade 2006), aff’d 491 F.3d 1334 (Fed. Cir. 2007).

Based on the meaning of “essential character” under GRI 3(b), we find that the Fitbit devices are primarily used to wirelessly connect and communicate with a paired smart device to measure and track health and fitness metrics. Using the Fitbit App installed on the paired smart device, the Fitbit Devices use an open wireless technology standard (Bluetooth), to transmit data to and from the wearable device. The Fitbit devices require a Bluetooth connection to be set up with the user’s preferences out of the box. The Fitbit device itself uses internal components such as an accelerometer and pedometer to measure various metrics such as steps taken, calories burned, flights of stairs climbed, time spent sleeping, and (in the case of the Fitbit Surge) the route of a run or bike ride. However, much of this information cannot actually be analyzed without first being transmitted to the paired smart device and subsequently through Fitbit’s servers, which processes and repackages the data so that it can be viewed on the paired device. The data can then be displayed, manipulated and stored on the Fitbit App. Additional

functionality requires the device to be actively paired with the smart device. For example, the phone number of incoming calls can only be displayed while the Fitbit is paired, and the Fitbit Surge must be paired in order to play music stored on the smart device. Consequently, it is the wireless Bluetooth transceiver that enables the user to fully access all of the Fitbit's functionality.

We note that in New York Ruling ("NY") N068636 (Aug. 12, 2009), CBP classified a first-generation "Fitbit Tracker" in heading 9031 HTSUS. The Fitbit Tracker consisted of a pedometer and accelerometer. CBP classified the product in heading 9031 HTSUS rather than as a pedometer because "it is clear that the device does a more than merely count a user's steps." However, the Fitbit Tracker was not as sophisticated as the instant Fitbit Charge, Charge HR and Surge. The Tracker could communicate wirelessly with a base station connected to a computer, but could not pair with a smart device via a Bluetooth transceiver like the instant devices. Furthermore, the Tracker was developed prior to the development of the Fitbit App, which permits the user to access the full range of functions on their paired smart device. Because the Fitbit products at issue here are more sophisticated and function differently than the Fitbit Tracker, the analysis in N068636 does not govern the classification of the Fitbit products at issue here.

By contrast, CBP has recently found similar wearable "smart" devices to be properly classified in heading 8517, HTSUS. In Headquarters Ruling ("HQ") H260060 (July 14, 2015), CBP classified the "Apple Watch" under heading 8517 HTSUS. CBP found that the Apple Watch was primarily used to execute apps that display, manipulate and store data via wireless communications with a paired, Internet-connected Apple iPhone mobile device. Thus, even though the Apple Watch features several electronic components—including an AMOLED display, CPU with installed OS, 512MB RAM, 4GB internal flash memory hard drive, radio transceiver, accelerometer, gyro sensor, heart rate monitor, speaker, and microphone—CBP applied GRI 3(b) and determined that the Bluetooth transceiver imparted the "essential character" because it facilitates the display, manipulation, and storage of data between the Apple Watch and a paired iPhone. Similarly, the Fitbit devices at issue here require the Bluetooth transceiver to communicate with the paired smart device, which in turn permits the user to utilize the full functionality of the device. In HQ H257947, CBP classified the "Gear Live" wearable smart device in heading 8517 HTSUS by application of GRI 3(b). *See also*, HQ H273382, dated January 3, 2017 (classifying the Garmin VivoActive and VivoActive HR wearable fitness devices in heading 8517 HTSUS by application of GRI 3(b)), HQ H265035, dated Jan. 19, 2016, (classifying the "Microsoft Band" wearable fitness tracker in heading 8517 HTSUS).

Upon evaluation of the form and function of each of the Fitbit Charge, Fitbit Charge HR and Fitbit Surge components, CBP finds that the essential character of the devices is imparted by its wireless communication capabilities, which are described under heading 8517, HTSUS, as "Other apparatus for the transmission or reception of voice, images, or other data [...] including apparatus for communication in a wired or wireless network [...]." Consequently, by application of GRI 3(b), the Fitbit devices are classified in heading 8517, HTSUS, specifically in subheading 8517.62.

Similarly, CBP notes that the Harmonized System Committee (HSC) of the World Customs Organization (WCO) recently considered the tariff classification of four “smart watch” devices and classified each of the devices under subheading 8517.62, HS. *See Annex H/7 to Doc. NC2116E1b (HSC/55).* As stated in T.D. 89-90, CBP accords HSC opinions the same weight as that of Explanatory Notes, *i.e.*, while neither legally dispositive or binding, classification decisions of the HSC are generally indicative of the proper interpretation of HS headings. Accordingly, CBP observes that the conclusions reached in this ruling are consistent with the HSC’s classification of certain smart devices, as reflected in the WCO Compendium of Classification Opinions (C.O.) at C.O. 8517.62/21, 8517.62/22, 8517.62/23, and 8517.62/24.

**HOLDING:**

By application of GRI 3(b), the Fitbit Charge, Fitbit Charge HR and Fitbit Surge devices are classified in heading 8517, HTSUS. Specifically, they are classified in subheading 8517.62.00, HTSUS, which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network); Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus.” The 2017 column one, general rate of duty for merchandise of subheading 8517.62.00, HTSUS, is *free*. You are instructed to GRANT the protest in full.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

**HQ H281100**

June 27, 2018

**CLA-2 OT:RR:CTF:TCM H281100 DSR**

**CATEGORY:** Classification

**TARIFF NO.:** 8518.22.00

Mr. Pascale Panighel  
Euro Communication Equipments  
Route De Foix D117  
Nevias 11500 France

**RE:** Revocation of NY N233202; tariff classification of SuperTooth Disco 2 Bluetooth Wireless Speaker from the Philippines

Dear Mr. Panighel:

In New York Ruling Letter (NY) N233202 (October 2, 2012), U.S. Customs and Border Protection (CBP) classified a device identified as the “SuperTooth Disco 2 Bluetooth Speaker” (hereinafter “Disco 2”) in subheading 8517.62.00, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” Since NY N233202 was issued, CBP has reviewed the ruling and determined that the classification provided for the Disco 2 is incorrect and, therefore, NY N233202 must be revoked for the reasons set forth in this ruling.

Pursuant to section 625(c)(1), Tariff Act of 1930 (19 U.S.C. §1625(c)(1)), as amended by section 623 of Title VI, notice of the proposed revocation of NY N233202 was published on May 16, 2018, in the Customs Bulletin, Volume 52, No. 20. CBP received no comments in response to the notice.

**FACTS:**

The Disco 2 is a device that houses, among other things, two loudspeakers and a “bass reflex system,” or subwoofer. To enable connectivity, the Disco 2 also contains a CSR8645 Bluetooth chip that permits it to receive and transmit in the frequency range of 2.402-2.480 GHz. When paired with other Bluetooth devices, the unit communicates with those Bluetooth devices using a time division duplex scheme that alternates transmission and reception functions, and thus

uses the same antenna to transmit and receive at different times. There is an internal BT radio, digital signal processor, and audio codec that are used to receive and decode streamed music from a mobile phone or any Bluetooth host device. There is also a headset that can communicate with other Bluetooth products that support AD2P/AVRCP Bluetooth profile. Contained within the Disco 2 is an 8 cell nickel-metal hydride (NiMH) rechargeable battery, which can be charged by the 14 volt direct current (DC) charging input. There are built-in buttons for adjustable volume, play/pause, and next/previous music search.<sup>1</sup> The Bluetooth chip contained within has a 3.3 volt voltage regulation circuit, battery protection and a charging circuit.

**ISSUE:**

Whether the Disco 2 is classified under subheading 8517.62.00, HTSUS, which provides for machines for the reception, conversion and transmission or regeneration of voice, images or other data; subheading 8518.22.00, which provides for multiple loudspeakers mounted in the same enclosure; or in subheading 8519.89.30, which provides for other sound recording or sound reproducing devices.

**LAW AND ANALYSIS:**

Classification under the HTSUS is determined in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order. In addition, in interpreting the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. *See* T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989). The HTSUS provisions under consideration in this ruling are as follows:

**8517** Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof:

...

Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network):

...

**8517.62.00** Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus

\* \* \*

**8518** Microphones and stands therefor; loudspeakers, whether or not mounted in their

---

<sup>1</sup> NY N233202 incorrectly stated that the Disco 2 is capable of up to 15 hours of talk time (as a “speakerphone”) when paired with a Bluetooth enabled cellular phone. However, our research indicates that the Disco 2 is not able to act as a speakerphone – it can only stream music from such a phone.

enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets; parts thereof:

...

Loudspeakers, whether or not mounted in their enclosures:

**8518.22.00**      Multiple loudspeakers, mounted in the same enclosure

\* \* \*

**8519**      Sound recording or reproducing apparatus:

...

Other apparatus:

...

Other:

**8519.89.30**      Other

The EN to heading 85.17 provides, in pertinent part, the following:

This heading covers apparatus for the transmission or reception of speech or other sounds, images or other data between two points by variation of an electric current or optical wave flowing in a wired network or by electromagnetic waves in a wireless network. The signal may be analogue or digital. The networks, which may be interconnected, include telephony, telegraphy, radio-telephony, radio-telegraphy, local and wide area networks.

...

**(II) OTHER APPARATUS FOR TRANSMISSION OR RECEPTION OF VOICE, IMAGES OR OTHER DATA, INCLUDING APPARATUS FOR COMMUNICATION IN A WIRED OR WIRELESS NETWORK (SUCH AS A LOCAL OR WIDE AREA NETWORK)**

...

**(F) Transmitting and receiving apparatus for radio-telephony and radio-telegraphy.**

This group includes:

**(1) Fixed apparatus for radio-telephony and radio-telegraphy (transmitters, receivers and transmitter-receivers). . . .**

...

The EN to heading 85.18 provides, in pertinent part, the following:

This heading covers microphones, loudspeakers, headphones, earphones and audio-frequency electric amplifiers of all kinds presented separately, regardless of the particular purpose for which such apparatus may be designed (e.g.,

telephone microphones, headphones and earphones, and radio receiver loudspeakers).

The heading also covers electric sound amplifier sets.

...

**(B) LOUDSPEAKERS, WHETHER OR NOT MOUNTED IN THEIR ENCLOSURES**

The function of loudspeakers is the converse of that of microphones: they reproduce sound by converting electrical variations or oscillations from an amplifier into mechanical vibrations which are communicated to the air. . . .

Matching transformers and amplifiers are sometimes mounted together with loudspeakers. Generally the electrical input signal received by loudspeakers is in analogue form, however in some cases the input signal is in digital format. Such loudspeakers incorporate digital to analogue converters and amplifiers from which the mechanical vibrations are communicated to the air.

Loudspeakers may be mounted on frames, chassis or in cabinets of different types (often acoustically designed), or even in articles of furniture. They remain classified in this heading provided the main function of the whole is to act as a loudspeaker. Separately presented frames, chassis, cabinets, etc., also fall in this heading provided they are identifiable as being mainly designed for mounting loudspeakers; articles of furniture of Chapter 94 designed to receive loudspeakers in addition to their normal function remain classified in Chapter 94.

The heading includes loudspeakers designed for connection to an automatic data processing machine, when presented separately.

...

The EN to heading 85.19 provides, in pertinent part, the following:

This heading covers apparatus for recording sound, apparatus for reproducing sound and apparatus that is capable of both recording and reproducing sound. Generally, sound is recorded onto or reproduced from an internal storage device or media (e.g., magnetic tape, optical media, semiconductor media or other media of heading 85.23).

...

**(IV) OTHER APPARATUS USING MAGNETIC, OPTICAL OR SEMICONDUCTOR MEDIA**

The apparatus of this group may be portable. They may also be equipped with, or designed to be attached to acoustic devices (loudspeakers, earphones, headphones) and an amplifier.

....

As in N233202, we continue to hold that the Disco 2 performs two or more complementary functions and that, therefore, Note 3 to Section XVI is applicable. Note 3 to Section XVI, states the following:

Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

However, we no longer hold that that the principal function of the Disco 2 is to transmit and receive sounds or data. Specifically, we now believe that in NY N233202, CBP incorrectly reasoned that the Bluetooth chip (*i.e.*, the component that imparts the transmission/reception functionality), rather than the loudspeaker, performs the principal function of this composite machine. Instead, we now find that the Disco 2 compares in functionality to a device that was the subject of H167260, issued *before* NY N233202 (on July 11, 2011), and that was classified in heading 8518 as a loudspeaker. In HQ H167260, the subject device is described as a “Jambox.” It is a Bluetooth-compliant wireless speaker with a built-in microphone. It is a portable device that connects to laptops, smart phones, tablets and mp3 players through a 3.5mm stereo wire, or via wireless Bluetooth technology, which enables it to play music stored on or streamed through such devices. When paired to a mobile telephone via Bluetooth, the Jambox will also function as a “speakerphone” – *i.e.*, a device that enables its user to command the paired mobile telephone to dial calls, answer calls, and talk hands-free by broadcasting the call.

In H167260, CBP correctly determined that the principal function of the Jambox, which is functionally analogous to the Disco 2, is that of a loudspeaker. Accordingly, H167260 correctly held that, by operation of Note 3 to Section XVI, the Jambox is properly classifiable in subheading 8518.22.00, covering loudspeakers. Like the Jambox of HQ H167260, the principal function of the Disco 2 is to act as a loudspeaker, regardless of the manner in which that function is enabled by its Bluetooth capabilities. The Bluetooth feature enables the speaker to wirelessly connect to the source of the audio signals that the speaker converts into corresponding sounds. Thus, the Bluetooth feature functions essentially like a stereo wire, except it permits the connection to be wireless. Regardless of whether loudspeakers such as the Jambox or the Disco 2 are connected to the source of the audio signals by way of a stereo wire, or wirelessly via the Bluetooth transmission/reception functions, the principal function of such loudspeakers is not to connect to the source of the signal, but rather to convert such signal into sound – that is, to function as a loudspeaker. Accordingly, by operation of Note 3 to Section XVI and because the Disco 2 principally functions as a loudspeaker, it is properly classified under heading 8518, HTSUS, and not in heading 8517, which covers machines for the transmission or reception of data. Moreover, because the Disco 2 consists of multiple loudspeakers mounted in the same enclosure, it is properly classifiable in subheading 8518.22.00.

We also note that because the Disco 2 is unable to record sound or read a recorded file from an internal memory or from a USB flash memory device or other removable solid-state non-volatile media, the Disco 2 is functionally distinct from merchandise that is classifiable in heading 8519, which provides for sound recording or reproducing apparatus. In NY N133779 (December 17, 2010), for example, CBP considered a device identified as the “iHome Airplay Wireless Stereo Speaker System with Rechargeable Battery” (Model No. iW1). The device is described as being designed to play and control audio files that it receives over a wireless (“Wi-Fi”) computer network. It is composed of a Wi-Fi system that incorporates four built-in speakers, an audio controller, an auxiliary input jack, a USB port, and a built-in rechargeable lithium battery. It is designed to reproduce sound that it generates from externally stored digital audio files. It can also play back music when physically connected to such devices as an Apple iPod, iPhone or iPad. Upon connection to a wireless network, the device also receives digital audio files, *e.g.*, within an iTunes library, that it converts into audio signals, and then amplifies and plays the audio through its four built-in speakers. The rechargeable, battery-operated device does not contain a tuner and is not capable of recording. The product page for the device indicates that the device “supports charging and local audio playback via USB using the USB sync cable that comes with new iPods and iPhones.” [Emphasis added] See <https://www.ihomeaudio.com/iW1BC/>. CBP classified the device as an “other” sound recording or reproducing apparatus of subheading 8519.89.30, HTSUS. Later, in HQ H234950, CBP affirmed the holding reached in NY N133779 and provided comprehensive guidance regarding the proper interpretation of the phrase “sound recording or reproducing” as contemplated by heading 8519, HTSUS. Specifically, in HQ H234950 CBP explained that, in accordance with the EN to heading 8519, a “sound-reproducing device” must be able to read a recorded file either from an internal memory or from a removable solid-state non-volatile medium, such as a USB flash memory apparatus:

[T]he ENs define a “sound-recording or reproducing device” as including one that functions by way of semiconductor media. Sound that is recorded onto such a medium is done so as digital code converted from analogue signal on the recording medium, and sound that is reproduced is done so by reading such medium. The fact that the ENs allow for semiconductor media to be either permanently installed in the apparatus or in the form of removable solid-state non-volatile storage media means that sound can be recorded onto an internal file or a removable solid state non-volatile media, such as a USB flash memory apparatus. *In order for a device to be a sound-reproducing device, it must be able to read the recorded file, either from an internal memory or from a removable solid-state non-volatile media, such as a USB flash memory apparatus.* See EN 85.19. [Emphasis added]

This definition is in accordance with definitions of dictionaries and other lexicographic sources. For example, the Oxford English Dictionary defines “record” as “of a machine, instrument or device: to set down (a message, reading, etc.) in some permanent form.” See [www.oed.com](http://www.oed.com). The Oxford English Dictionary defines “reproduce” as “To relay (sound originating elsewhere) or replay (sound recorded on another occasion) by electrical or mechanical means.... To produce again in the form of a copy.” See [www.oed.com](http://www.oed.com). In addition, the McGraw-Hill Encyclopedia of Science and Technology defines “sound recording” as “the technique of entering sound, especially music, on a storage medium for playback at a subsequent time.” See *McGraw-Hill Concise Encyclopedia of Science and*

*Technology*, 6th Ed., 2009 at 2197. This encyclopedia defines “sound-reproducing systems,” in pertinent part, as:

Systems that attempt to reconstruct some or all of the audible dimensions of an acoustic event that occurred elsewhere. A sound-reproducing system includes the functions of capturing sounds with microphones, manipulating those sounds using elaborate electronic mixing consoles and signal processors, and then storing the sounds for reproduction at later times and different places.

*Id.* at 2197.

CBP then concluded that the products in question were sound reproducing devices of heading 8519, HTSUS, because they were able to read audio files from an inserted USB device. That conclusion is consistent with prior CBP rulings cited in HQ H234950. *See* NY N182121 (September 16, 2011); NY N129141 (November 16, 2010).

Unlike the devices considered in HQ H234950 and the rulings cited therein, the instant Disco 2 is unable to record files either from an internal memory or from a removable solid-state non-volatile media, nor can the Disco 2 reproduce said files – a requirement that must be met in order for the devices to meet the relevant definition of “sound recording or reproducing” devices. Accordingly, the Disco 2 is not classified as a sound recording or reproducing device within the scope of heading 8519, HTSUS.

## **HOLDING:**

By application of GRI 1 (Note 3 to Section XVI), the SuperTooth Disco 2 Bluetooth Wireless Speaker is classified in heading 8518, HTSUS, specifically in subheading 8518.22.00, HTSUS, which provides in pertinent part for: “... loudspeakers, whether or not mounted in their enclosures; ...: ... Loudspeakers, whether or not mounted in their enclosures: ... Multiple loudspeakers, mounted in the same enclosure.” The current column one, general rate of duty is 2.4% *ad valorem*.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided at [www.usitc.gov](http://www.usitc.gov).

## **EFFECT ON OTHER RULINGS:**

NY N233202, dated October 2, 2012, is revoked in accordance with this decision.

In accordance with 19 U.S.C. §1625(c), this ruling will become effective 60 days after publication in the Customs Bulletin.

Sincerely,

Myles B. Harmon, Director

Commercial and Trade Facilitation Division

HQ H283180

January 21, 2020

**CLA-2 OT:RR:CTF:EMAIN H283180 ALS**

**CATEGORY:** Classification

**TARIFF NO.:** 8537.10.91

Kenneth R. Paley, Esq.  
Peter Jay Baskin, Esq.  
Sharretts, Paley, Carter & Blauvelt, P.C.  
75 Broad Street  
New York, New York 10004

**RE:** Ruling request regarding the tariff classification of two different models of iHome SmartPlugs

Dear Messrs. Paley and Baskin:

This letter is in reply to your request, on behalf of SDI Technologies, Inc., for a prospective ruling on the proper tariff classification of two different models of iHome SmartPlugs. Our decision is set forth below.

**FACTS:**

The following facts are based on the information you provided. The iHome SmartPlugs models at issue are iSP5 and iSP6. The iSP5 is not capable of being controlled by a remote control device. The iSP6 is capable of being controlled by a remote control device, but is not imported or sold with one. The SmartPlugs are rectangular electronic devices that have a typical 3-prong electric plug on one end and a typical 3-prong electric socket on the opposite end. The devices are encased in a plastic body.

The SmartPlugs plug into an electrical outlet and allows for another electrical device to be plugged into the socket end. They incorporate Wi-Fi capability, an electric power indicator light, a Wi-Fi status indicator light, and a push button

that turns the connected device on and off as well as activates a search for a wifi network. Through the installed smart device application, the user can turn the connected device on and off by controlling whether electrical current flow from the wall outlet to the connected device. The user may also set a timed-schedule for automated on and off activity, and monitor the connected device. Typical devices that will be connected to the SmartPlugs are lamps, small appliances, and window air conditioning units.

You assert that the iHome SmartPlugs are properly classified under heading 8517, HTSUS, specifically subheading 8517.62.00, as a machine for the transmission data. Alternatively, you assert that the SmartPlugs are classifiable under subheading 8517.69.00 as other apparatus for communication in a wireless network.

**ISSUE:**

Are the iHome SmartPlugs, as described above, properly classified under HTSUS heading 8517, HTSUS, which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof”, or under heading 8537, HTSUS, which provides for “Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517”?

**LAW AND ANALYSIS:**

Classification under the HTSUS is determined in accordance with the General Rules of Interpretation (“GRI”) and, in the absence of special language or context which otherwise requires, by the Additional U.S. Rules of Interpretation (“ARI”). GRI 1 provides that the classification of goods shall be “determined according to the terms of the headings and any relative section or chapter notes.” In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, GRIs 2 through 6 may be applied in order.

The following headings and subheadings of the HTSUS are under consideration in this case:

- 8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including

	apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof:
8517.62.00	Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus:.. * * *
8517.69.00	Other... * * *
8537	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517:
8537.10	For a voltage not exceeding 1,000 V:
8537.10.91	Other... * * * * *

Notes 4 and 5 of Section XVI, HTSUS, under which both heading 8517 and 8537 are provided, provide the following:

4. Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.
5. For the purposes of these notes, the expression "machine" means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of chapter 84 or 85.

The Explanatory Notes (ENs) to the Harmonized Commodity Description and Coding System represent the official interpretation of the tariff at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

Heading 8517 covers, among other things, apparatus for the transmission or reception of data, including apparatus for communication in a wireless network. Both models of the iHome SmartPlug at issue here are electrical devices that are plugged into a typical household electrical outlet. The only relevant distinction between the two is that the iSP6 is capable of being used with a remote control while the iSP5 is not. The SmartPlugs contain circuitry that enables them to be connected to a wireless network, but the SmartPlugs do not transmit or receive data from the devices to which they are connected. The primary function of the SmartPlugs, therefore, is not the transmission of data, whether it is connected to a wireless network or not. The primary function of the SmartPlugs is to turn the electrical appliance plugged into them on and off by controlling the electrical current to the electrical appliance.

With regard to the iSP5, it controls the electrical current to the appliance either via the installed application on the network-connected smart device or via the button located on the iSP5 itself. With regard to the iSP6, it can control the electrical current to the appliance in the same manner as the iSP5 and additionally control the electrical current to the appliance via an optional handheld remote control. With either SmartPlug, to the extent that data is transmitted from the application to the SmartPlug, it is in service of the primary function of controlling the electrical current to the connected appliance. The transmission of data is not a function of the SmartPlugs. Pursuant to Note 4 to Section XVI, HTSUS, supra, we find that the components of the SmartPlugs that contribute to the transmission of data are intended to contribute to the clearly defined function of electric control, as specifically provided for in heading 8537, HTSUS.

You cite to two CBP rulings in support of your contention that the subject articles are devices for the transmission of data or devices for two-way wireless communication. In CBP Ruling HQ H279898 (April 5, 2017), CBP ruled that a Fitbit wearable fitness tracker is properly classified under heading 8517, HTSUS, as a wireless communication device. You argue that since we found that the Fitbit device's essential character is the wireless communication function, we should find the essential character of the subject SmartPlugs to be wireless data communication. In CBP Ruling HQ H110422 (October 7, 2010), CBP ruled that certain dimmer switches are properly classified under heading 8533, HTSUS, as electrical resistors. You argue that CBP found that the principal function of the dimmer switches was the dimmer function because consumers would most likely purchase the product for that function, and therefore CBP should find that the subject articles should be wireless data communication devices because it is the function "which will prompt consumers to purchase the SmartPlugs."

With regard to HQ H279898, the Fitbit device is not similar in function or intended use to the subject SmartPlugs. Thus, we do not find HQ H279898 to be dispositive in this case. With regard to HQ H110422, it does not follow that since CBP found that consumers will most likely purchase the dimmer switches because of their dimming function, CBP should find that consumers will most likely purchase the subject articles because of their "wireless data communication." As we concluded above, the transmission of data is not a function of the SmartPlugs. Therefore, HQ H110422 is also not dispositive in this case.

In conclusion, we find that the SmartPlugs are not switching apparatus of heading 8517 and therefore are not precluded from classification under heading 8537. Based on the foregoing, we conclude that the subject SmartPlugs are devices that provide electric control of electrical devices connected to them and thus are properly classified under heading 8537, HTSUS. Specifically, the SmartPlugs models iSP5 and iSP6 are properly classified under subheading 8537.10.91, which provides for "Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for

electric control or the distribution of electricity, including those incorporating instruments or apparatus of chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517: For a voltage not exceeding 1,000 V: Other..."

**HOLDING:**

By application of GRI 1 and Notes 4 and 5 of Section XVI, HTSUS, the SmartPlugs models iSP5 and iSP6 are properly classified under heading 8537, HTSUS. Specifically, the subject SmartPlugs are properly classified under subheading 8537.10.91, HTSUS, which provides for "Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, including those incorporating instruments or apparatus of chapter 90, and numerical control apparatus, other than switching apparatus of heading 8517: For a voltage not exceeding 1,000 V: Other..." The 2019 column one, general rate of duty for merchandise classified in this subheading is 2.7% *ad valorem*.

Duty rates are provided for your convenience and subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at [www.usitc.gov](http://www.usitc.gov).

Pursuant to U.S. Note 20(f) to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8537.10.91, HTSUS, unless specifically excluded, are subject to an additional 25 percent *ad valorem* rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8537.10.91, HTSUS, noted above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china> respectively.

Please note that this ruling letter is "issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect." 19 CFR 177.9(b)(1). The application of this ruling letter "is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based." See id. CBP therefore reserves the right to verify all facts as noted herein. Furthermore, this ruling letter will be "applied only with respect to transactions involving articles

identical to the sample submitted with the ruling request or to articles whose description is identical to the description set forth in the ruling letter." 19 CFR 177.9(b)(2).

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Gregory S. Connor, Chief  
Electronics, Machinery, Automotive, and  
International Nomenclature Branch

HQ H285617

May 4, 2018

**CLA-2 OT:RR:CTF:EMAIN H285617 NCD**

**CATEGORY:** Classification

**TARIFF NO.:** 8517.62.00

John M. Peterson  
Neville Peterson LLP  
One Exchange Plaza  
55 Broadway, Suite 2602  
New York, New York 10006

**RE:** Tariff classification of Kronaby hybrid smartwatches

Dear Mr. Peterson:

This is in response to your letter of March 15, 2017, submitted on behalf of Anima, AB, requesting a prospective ruling (“ruling request”) as to the classification of various models of “Kronaby”-brand hybrid smartwatches under the Harmonized Tariff Schedule of the United States (“HTSUS”). In reaching the below determination, we have considered information presented in your March 15, 2017 letter (hereinafter “ruling request”) and a separate submission dated April 26, 2018 (“supplemental submission”). Additionally, to confirm narrative descriptions of the subject merchandise, we have inspected a product sample provided at our request.

**FACTS:**

Kronaby hybrid smartwatches are wrist-wearable devices which, according to your ruling request, “incorporate both analogue watch features and wireless technology.” The exterior design of each device emulates that of a traditional analog wristwatch, replete with fixed-number dials, crown-replicative side buttons or “triggers”, and superadjacent and subjacent side buttons all embedded in steel cases. Whereas some model types have single dials, others have one or more chronograph-style “sub-dial” in addition to the main dial (See Figures 1 and 2 below).



Figure 1



Figure 2

According to schematics included with your supplemental submission, Kronaby hybrid smartwatches do not contain mechanical or quartz watch movements. They are instead equipped with a microcontroller consisting of (*inter alia*) a processor core and Bluetooth transceiver. The microcontroller controls a separate step-on motor that moves the watch hands, as well as a separate component that causes the watch to vibrate, and it is also linked to an internal accelerometer. Its constituent Bluetooth transceiver, in combination with a fully integrated antenna, enables wireless pairing and two-way interactivity with a mobile device. It specifically allows the watches to synchronize with a dedicated mobile device application, which both displays certain data received from the watch and transmits data to the watch. When so paired, the watch receives the requisite data to display local time on the main dial (as well as a secondary time or date on the sub-dial).

You contend that prior to this pairing, Kronaby hybrid smartwatches do not actually keep time. This account is consistent with our inspection of the above-mentioned sample, as well as our review of official product literature included with your submissions. By all indications, the watch hands are completely inactive prior to synchronization; not only are they unmoving, but they cannot be actuated or adjusted manually. Once the time is remotely set, it is kept and displayed on the watch face throughout any interruptions to the connection with the mobile application. Even then, however, the time cannot be adjusted manually on the watch itself. Instead, any adjustments to the watch hands – due, for example, to a change in time zone – are effectuated by the mobile application.

In addition to time-related data, the mobile application transmits to the watch certain notifications which are in turn conveyed to the wearer by vibration and/or the movement of the hands to pre-designated positions on the face (see Figure 3 below). Reciprocally, the application receives and displays data related to the wearer's daily physical movement and nightly sleep patterns, including the number of steps taken, miles traveled, calories burned, hours slept, and quality of sleep. It also allows users to select, assign, and subsequently reassign various remote functions to different watch components. For example, if the user wishes to control music on a paired device from the watch, she or he can assign this function to one of the triggers (see Figure 4 below). The user can subsequently re-program that trigger to operate the camera on the paired device, send a pre-formed message to a different device, record the watch's

geographical location, or perform a different function altogether. Similarly, a user can cycle the sub-dial of the chronograph models among date, secondary time, or step-tracking displays.

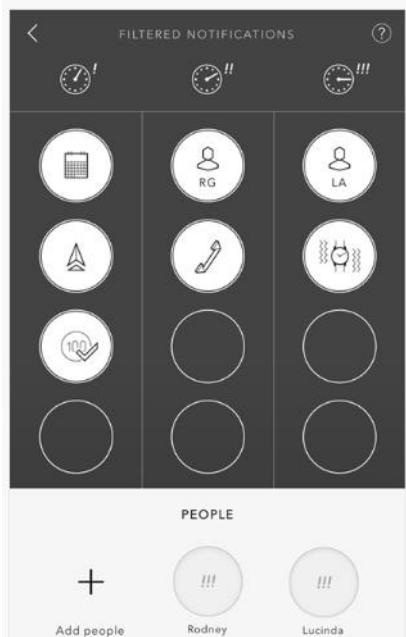


Figure 3



Figure 4

## ISSUE:

Whether the Kronaby watches are classified as “other” apparatus for the transmission or reception of voice, images or other data in heading 8517, HTSUS, as checking instruments in heading 9031, HTSUS, or as wrist watches in heading 9102, HTSUS.

## LAW AND ANALYSIS:

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order. GRI 2(b) states, in pertinent part, that “[a]ny reference to goods of a given material or substance shall be taken to include a reference to goods consisting wholly or partly of such material or substance” and that “classification of goods consisting of more than one material or substance shall be according to the principles of rule 3.” GRI 3(b) provides that “composite goods consisting of different materials or made up of different components” are to be classified, where possible, “as if they consisted of the material or component which gives them their essential character.”

The Harmonized Commodity Description and Coding System Explanatory Notes (“ENs”) constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The HTSUS headings under consideration in the instant case are as follows:

- 8517** Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof
  - 9031** Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof
  - 9102** Wrist watches, pocket watches and other watches, including stop watches, other than those of heading 9101:
- 

As a preliminary matter, it is undisputed that the Kronaby hybrid smartwatches are partially, though not wholly, described by each of the headings at issue. To the extent they adorn the wrist and display the time following initial synchronization, they are partially described as wristwatches of heading 9102, HTSUS. See EN 91.02 (“This heading covers mechanical and electrical (mostly electronic) timekeeping instruments with case and movement, of a kind intended to be worn or carried and designed to function in all positions, which indicate the time or measure intervals of time.”). However, because they also transmit and receive data in the course of setting and updating the time and performing other functions, they are also described in part by heading 8517, HTSUS. Finally, because one of the collateral functions is step-tracking via an accelerometer application, the watches fall partially within the scope of heading 9031, HTSUS. Consequently, as in other cases involving multifunctional wristwear, the Kronaby hybrid smartwatches cannot be classified pursuant to GRI 1. See, e.g., Headquarters Ruling Letter (“HQ”) H271909, dated July 8, 2016, and HQ H268657, dated March 28, 2016 (setting forth analytical framework for determining the classification of “hybrid smartwatches”).

Rather, pursuant to GRI 3(b), they are composite goods which must be classified as if they consisted of the component which imparts their essential character. It is well-established that a determination as to “essential character” is driven by the particular facts of the case at hand. See, e.g., *Alcan Food Packaging (Shelbyville) v. United States*, 771 F.3d 1364, 1366 (Fed. Cir. 2014) (“The ‘essential character’ of merchandise is a fact-intensive issue.”); see also EN(VIII) to GRI 3(b) (“The factor which determines essential character will vary as between different kinds of goods.”). That said, essential character has traditionally been understood as “that which is indispensable to the structure, core or condition of the article, i.e., what it is” and as “the most outstanding

and distinctive characteristic of the article.” *Structural Indus. v. United States*, 360 F. Supp. 2d 1330, 1336 (Ct. Int’l Trade 2005) (citing various Customs Court decisions).

Additionally, EN(VIII) to GRI 3(b) counsels that essential character “may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods.” See *Home Depot USA, Inc. v. United States*, 491 F.3d 1334, 1337 (Fed. Cir. 2007) (“Many factors should be considered when determining the essential character... specifically including but not limited to those factors enumerated in Explanatory Note (VIII) to GRI 3(b).”). It is therefore common practice to determine essential character by applying some combination of the above-mentioned factors – e.g., physical predominance, indispensability, and/or relation to article use and identity – as warranted by the unique facts of the case. Compare *Alcan*, 771 F.3d at 1367 (affirming determinants of essential character to be relative weight, value, indispensability, and impartation of the “qualities that define...a product”) with *Pomeroy Collection, Ltd. v. United States*, 893 F. Supp. 2d 1269, 1287 (Ct. Int’l Trade 2013) (“The function of each article as a whole is to hold and display an object or objects; and the glass vessel is the component that gives the article its ability to serve that function...Thus, the essential character of the Floor Articles is imparted by the glass vessels.”).

In the present case, the balance of relevant factors supports a determination that the essential character of the Kronaby hybrid smartwatches is that of an apparatus for the transmission or reception of data. We initially note that the articles are capable of keeping and displaying time, and that their most prominent physical components, which account by far for the majority of their outer surface areas, are those that are related to timekeeping or are otherwise characteristic of analog wristwatches. These features include the analog dials, crown-replicative side buttons, and steel cases, which, collectively, make up almost the entirety of the articles’ faces. In prior cases involving “hybrid smartwatches,” CBP has viewed timekeeping capability and physical resemblance to traditional analog watches of heading 9102, HTSUS, as factors that are highly probative of the articles’ essential character. See HQ H271909, *supra* (finding that the Metropolitan+ Watch is primarily a timepiece” in large part because “the watchcase and dial...are substantially similar to those of a quartz analog wristwatch”); see also HQ H268657, *supra* (making a similar determination with respect to the “Fossil Grant Connect Watch”).

However, it is ultimately the articles’ Bluetooth transceivers which prove to be both an indispensable component and the component which plays the greatest role with relation to the article’s use. This is because the data transmission and reception conducted by the transceiver is an absolute prerequisite to the article’s above-mentioned use as a timekeeping device, or as anything else of utilitarian value. Again, per our review of product-specific schematics and inspection of a product sample, the Kronaby hybrid smartwatches lack quartz or mechanical watch movements and cannot be set or adjusted manually. Any movement of the hands results strictly from actuation of the step-on motor by the microcontroller, which receives the data needed to initially set and subsequently adjust the time via the Bluetooth transceiver. Thus, in their

condition as imported, the articles at issue look like – but do not act as – wristwatches. See *Mita Copystar Am. v. United States*, 21 F.3d 1079, 1082 (Fed. Cir. 1994) (emphasizing the importance of the “condition when imported” of merchandise to be classified).

Nor can they be programmed to conduct, or can they actually conduct, the majority of their available collateral functions without a conduit for data transmission and reception. The haptic or visual conveyance of notifications, remote control of music and camera functions, display of a date or second time zone, and transmission of data related to location, physical activity, and sleep patterns – among other functions – are wholly dependent on two-way interactivity with a paired mobile device. In previous cases involving transceiver-equipped wristwear, CBP has found a comparatively high dependence upon data transmission and reception to be grounds for classification in heading 8517, HTSUS, per GRI 3(b). See, e.g., HQ H265035, dated January 19, 2016 (“When the Microsoft Band is ‘unpaired’...[it] operates with substantial functional limitations that render it unable to perform many of the tasks for which [it] is marketed. Consequently...it is the Bluetooth transceiver that is indispensable to the core, essential condition of the Microsoft Band...”); see also HQ H260060 and HQ H257947, both dated July 14, 2015 (making similar determinations with respect to the “Apple Watch” and Samsung “Gear™ Live Android™ Smartwatch”, respectively).

Therefore, despite the articles’ general timekeeping capability and physical resemblance to analog wristwatches, we find the indispensability and comparative importance of the transceiver components to tip the balance of factors toward a determination that the Kronaby hybrid smartwatches have the “essential character” of “apparatus for the transmission or reception of data.”\* They are consequently classified in heading 8517, HTSUS, pursuant to GRI 3(b). We caution, however, that this determination does not supersede or otherwise modify our general position regarding the classification of other products describable as “hybrid smartwatches”, such as those subject to HQ H271909 and HQ H268657, *supra*.

## **HOLDING:**

By application of GRI 3(b), the Kronaby hybrid smartwatches are classified in heading 8517, HTSUS. They are specifically classified in subheading 8517.62.00, HTSUS, which provides for, “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice,

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\* Additionally, as in myriad cases involving smartwatches, we find the accelerometer and geo-tracking functions of the Kronaby hybrid smartwatches to be subordinate to the comparatively greater role played by the transceivers. See HQ H260060, HQ H257947, HQ H271909, and HQ H268657, *supra*.

images or other data, including switching and routing apparatus." The 2018 column one, general rate of duty for merchandise of subheading 8517.62.00, HTSUS, is *free*.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H286610

August 8, 2017

**CLA-2 OT:RR:CTF:TCM H286610 LWF**

**CATEGORY:** Classification

**TARIFF NO.:** 8517.62.00

William J. Maloney  
Sandler, Travis, and Rosenberg, P.A.  
551 Fifth Avenue, Suite 1100  
New York, NY 10176

Re: Tariff classification of the Garmin vívofit® 3 and vívofit® jr. wearable electronic fitness trackers

Dear Mr. Maloney:

We are writing in response to your correspondence, dated April 12, 2017, in which you requested a binding tariff classification ruling from U.S. Customs and Border Protection (CBP) on behalf of your client, Garmin, Ltd. ("Garmin"). Your ruling request concerns the tariff classification of the Garmin vívofit® 3 and vívofit® jr. wearable electronic fitness trackers under the Harmonized Tariff Schedule of the United States (HTSUS).

**FACTS:**

You request a tariff classification ruling concerning the classification of two wearable electronic fitness tracker devices: the Garmin "vívofit® 3" and "vívofit® jr."

The Garmin vívofit® 3 is a rechargeable, battery-operated wearable electronic fitness tracker that is worn on a user's wrist and is designed to collect data and support personal fitness. Using integrated Bluetooth wireless connectivity and an accelerometer sensor, the device is capable of capturing different physical activities, such as walking, running, biking, swimming, or sleeping, and transferring activity data to the "Garmin Connect" mobile or desktop app for review. The device is also capable of displaying activity data and time information on a 64 x 64 pixel sunlight-visible, transreflective memory-in-pixel (MIP) display. When paired with a compatible smartphone, the vívofit® 3 automatically syncs activity data to the Garmin Connect mobile app. Syncing the devices enables a user to use the Garmin Connect app to analyze steps and sleep data, view activity totals, and gain insights into daily physical activity levels.

Similar to the Garmin vívofit® 3, the Garmin vívofit® jr. is a re-chargeable, battery-operated wearable electronic fitness tracker that is worn on a child's wrist and is designed to manage data and

support a child's personal fitness. The vívofit® 3 and vívofit® jr. share similar design and performance characteristics; however, the distinguishing feature of the vívofit® jr. is the "parental interface" functions, which allow a parent to pair the device with a compatible smartphone and monitor a child's activity levels via a mobile app.

Like vívofit® 3, the vívofit® jr. features Bluetooth wireless connectivity and an accelerometer sensor that is used to collect data as a child walks, runs, bikes, swims, or sleeps, and transfer that data to a connected mobile or desktop app for review. The device is also capable of displaying activity data and time information on an integrated, 64 x 64 pixel sunlight-visible, transflective memory-in-pixel (MIP) display.

**ISSUE:**

What is the tariff classification of the Garmin vívofit® 3 and vívofit® jr. wearable electronic fitness trackers.

**LAW AND ANALYSIS:**

Classification under the Harmonized Tariff Schedule of the United States (HTSUS) is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative Section or Chapter Notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs may then be applied in their appropriate order.

GRI 3 provides, in pertinent part, as follows:

When, by application of rule 2(b) or for any other reason, good are, *prima facie*, classifiable under two or more headings, classification shall be effected as follows:

- (b) Mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale, which cannot be classified by reference to 3(a), shall be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.

\* \* \* \*

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While not legally binding, the ENs provide a commentary on the scope of each heading of the HS and are thus useful in ascertaining the proper classification of merchandise. It is CBP's practice to follow, whenever possible, the terms of the ENs when interpreting the HTSUS. See T.D. 89-90, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The ENs to GRI 3(b) provide, in pertinent part, that:

- (VII) In all these cases the goods are to be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.

(VIII) The factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods.

\* \* \* \*

The HTSUS provisions under consideration are as follows:

8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof

\* \* \* \*

8526 Radar apparatus, radio navigational aid apparatus and radio remote control apparatus

\* \* \* \*

9029 Revolution counters, production counters, taximeters, odometers, pedometers and the like; speedometers and tachometers, other than those of heading 9014 or 9015

\* \* \* \*

9031 Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof

\* \* \* \*

As an initial matter, CBP notes that the Garmin víofit® 3 and víofit® jr. wearable electronic fitness trackers are constructed of several component articles that are *prima facie* classifiable under two or more headings. Heading 8517, HTSUS, describes the devices' Bluetooth radio module; heading 9029, HTSUS, describes the devices' pedometer function; and heading 9031, HTSUS, describes the devices' accelerometer module. Consequently, because the víofit® 3 and víofit® jr. are, *prima facie*, classifiable in two or more headings, the tariff classification of the devices shall be determined by application of GRI 3—specifically GRI 3(b), which directs that a composite good made up of different components shall be classified as if consisting of the material or component that gives the good its essential character.

GRI 3(b) covers mixtures, composite goods, and goods put up in sets for retail sale. For purposes of this rule, Explanatory Note IX to GRI 3(b) provides that, "composite goods made up of different components shall be taken to mean not only those in which the component are attached to each other to form a practically inseparable whole but also those with separable components, **provided** these components are adapted one to the other and are mutually complementary and that together they form a whole which would not normally be offered for sale in separate parts." (Emphasis original). As such, the Garmin víofit® 3 and víofit® jr. are properly described as composite goods, because they consists of electrical components of independent, individual function that are attached to each other to form an inseparable whole.

Under GRI 3(b), composite goods must be classified according to the material or component that imparts the article with its essential character. The “essential character” of an article is “that which is indispensable to the structure, core or condition of the article, i.e., what it is.” *Structural Industries v. United States*, 360 F. Supp. 2d 1330, 1336 (Ct. Int’l Trade 2005). EN VIII to GRI 3(b) explains that “[t]he factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of the constituent material in relation to the use of the goods.” Recent court decisions on the essential character for GRI 3(b) purposes have looked primarily to the role of the constituent material in relation to the use of the goods. See *Estee Lauder, Inc. v. United States*, 815 F. Supp. 2d 1287, 1296 (Ct. Int’l Trade 2012); *Structural Industries*, 360 F. Supp. 2d 1330; *Conair Corp. v. United States*, 29 C.I.T. 888 (2005); *Home Depot USA, Inc. v. United States*, 427 F. Supp. 2d 1278 (Ct. Int’l Trade 2006), aff’d 491 F.3d 1334 (Fed. Cir. 2007).

In accord with the meaning of “essential character” under GRI 3(b), CBP finds that the Garmin vívofit® 3 and vívofit® jr. are primarily used to connect and communicate with a paired “smart device” to measure and track health and fitness metrics. Similar to the Fitbit, Inc. “Surge” and “Charge” wireless fitness tracker devices at issue in Headquarter Ruling Letter (“HQ”) H279898, dated April 5, 2017, the Garmin vívofit® 3 and vívofit® jr. use internal components such as an accelerometer and pedometer sensor to measure various metrics such as steps taken, calories burned, and sleep activity. However, much of this information cannot be analyzed without first being transmitted to the paired smart device and subsequently viewed on a mobile or desktop display. To accomplish this primary function, the devices use an open wireless technology standard (Bluetooth) to transmit data between the wearable device and the Garmin Connect mobile app installed on a the paired device. Accordingly, the integrated Bluetooth wireless connectivity is indispensable to the function of the Garmin vívofit® 3 and vívofit® jr. to measure and track health and fitness metrics.

Upon evaluation of the form and function of each of the Garmin vívofit® 3 and vívofit® jr. components, CBP finds that the essential character of the devices is imparted by its wireless communication capabilities, which are described under heading 8517, HTSUS, as “Other apparatus for the transmission or reception of voice, images, or other data[...] including apparatus for communication in a wired or wireless network[...].” Consequently, by application of GRI 3(b), the Garmin vívofit® 3 and vívofit® jr. wearable electronic fitness trackers are classified in heading 8517, HTSUS, specifically in subheading 8517.62.00.

#### **HOLDING:**

By application of GRI 3(b), the Garmin vívofit® 3 and vívofit® jr. wearable electronic fitness trackers are classified in heading 8517, HTSUS. Specifically, they are classified in subheading 8517.62.00, HTSUS, which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network); Machines for the reception, conversion and transmission or regeneration of voice, images or other data,

including switching and routing apparatus." The 2017 column one, general rate of duty for merchandise of subheading 8517.62.00, HTSUS, is *free*.

Duty rates are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <http://www.usitc.gov/>.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Gregory Connor, Acting Chief  
Electronics, Manufacturing, Automotive,  
and International Nomenclature Branch

**September 16, 2019**

**HQ H292799**

**OT:RR:CTF:FTM H292799 TSM**

**CATEGORY:** Classification

**TARIFF NO.:** 6307.90.98

Mr. R. Kevin Williams  
Clark Hill PLC  
130 E. Randolph St.  
Suite 3900  
Chicago, IL 60601

**RE:** Reconsideration of HQ H287971; Classification of premium cold packs (ice bags).

Dear Mr. Williams:

This is in response to your November 22, 2017, request for reconsideration of Headquarters Ruling Letter (“HQ”) H287971, dated September 29, 2017, issued to Precept Medical Products, Inc. (“Precept”). In that ruling, U.S. Customs and Border Protection (“CBP”) found that the ice bags at issue are classified under subheading 6307.90.98, Harmonized Tariff Schedule of the United States (“HTSUS”). We affirm HQ H287971 because we agree that the ice bags at issue are composite goods and that their essential character is determined by the textile component.

HQ H287971 described the ice bags at issue as follows:

[t]he goods at issue in this protest are premium cold packs (ice bags) imported by Precept from China. They consist of a tough plastic bag, or bladder, to be used to hold ice, with an attached rigid plastic clip for fastening the top of the plastic bag and keeping the ice to be placed within the bag securely within it; the clip also prevents leakage of water as the ice that has been placed within the bag melts. The plastic ice bag is imported together with a nonwoven textile bag which holds and contains the plastic ice bag. The textile bag consists of two layers of nonwoven fabric: a soft outer layer, and an absorbent inner layer. Four nonwoven textile ties are sewn on to all four corners of the textile bag for attachment of the ice pack (plastic ice bag and nonwoven textile bag holder) to a human body.

The cold packs are imported for use in hospitals and other health care settings. They are disposable ice packs, meant to be secured to whichever part of a patient's body (knee, leg, arm, elbow, etc.) will benefit from the therapeutic qualities (reduction in swelling, etc.) of the application of ice.

In your request for reconsideration, you claim in pertinent part as follows:

- (1) The ice packs at issue are provided for eo nomine as ice bags, which includes all forms of the named article, including improved forms. Adding a textile covering to the ice bag is a mere improvement, which does not transform it into a different article. Moreover, the ice bags at issue are known in trade and commerce as "ice bags" whether or not they are used with textile coverings. Therefore, the ice bags can be classified under GRI 1, without resort to GRI 3.
- (2) Alternatively, if the ice bags are considered composite goods, the essential character of the bags is imparted by the plastic bag that holds the ice. The textile covering adds an additional secondary feature to the ice bag, but does not change its essential character or its use as an ice bag. Customs has long recognized that the essential character of composite goods that provide heating or cooling is provided by the heating or cooling component.

With regard to your first argument, that the ice bags at issue are classified under GRI 1 and without resort to GRI 3, we note that they are composite goods consisting of two components: an ice bag and a textile cover. The primary function of the ice bag is to treat muscle strains or sprains. The primary function of the textile cover is to protect the users from ice burns. We find that GRI 1 is inapplicable here, because the ice bags and the textile covers are each designed to perform a separate function, and are not described in the same heading. In this regard, it should also be noted that there is no HTSUS heading providing for ice bags. If imported alone, the ice bags would be classified in heading 3926, HTSUS, and specifically subheading 3926.90.21, HTSUS, which provides for "Other articles of plastics and articles of other materials of headings 3901 to 3914: Other: Ice bags..." The textile covers, if imported alone, would be classified in heading 6307, HTSUS, and specifically in subheading 6307.90.98, HTSUS, which provides for "Other made up articles, including dress patterns: Other: Other."

In your request for reconsideration, you argued that the textile component is a mere improvement, which does not change the essential character or use of the ice bags at issue. You further argued that an article in the tariff that is provided for by its name includes all forms of the named article, including improvements to the article. You cited pertinent case law to support these arguments, which we turn to next. In Camelbak Products, LLC v. United States, 649 F.3d 1361 (Fed. Cir. 2011), the U.S. Court of Appeals for the Federal Circuit considered the tariff classification of back-mounted packs used for outdoor activities and athletics designed to deliver water to the user hands-free, allowing the user to consume water on-the-go without having to interrupt activity. The court held that it remained to determine the essential character of the imported articles since the articles were not simply improved backpacks and contained features

substantially in excess of the common meaning of backpacks. While the importer's articles permitted a user to carry some personal effects, the hydration component had a different design and primary use of providing a temperature-maintained, continuous source of hands-free hydration to a user while engaged in an activity. Thus, the articles were composite goods made up of two components under separate classifications.

Upon review, we find that the ice bags with textile covers under consideration are similar to the merchandise at issue in Camelbak Products in that both contain features in excess of the common meaning of the articles provided for by the pertinent HTSUS provisions. Just as the backpacks in Camelbak Products contained features substantially in excess of the common meaning of backpacks, the covers for the ice bags at issue perform a function substantially in excess of the function provided by the ice bag alone. As discussed above, the primary function of the ice bag is to treat muscle strains or sprains, while the primary function of the textile cover is to protect the users from ice burns. Therefore, similar to the merchandise at issue in Camelbak Products, the ice bags with textile covers at issue here are composite goods made up of two components classified under separate HTSUS provisions.

In C.T. Takahashi & Co. v. United States, 74 Cust. Ct. 38 (1975), at issue was the tariff classification of sanded and prefinished V-grooved plywood panels. The U.S. Customs Court found that V-grooved plywood, which concealed the edges when fitted together, did not take the plywood out of the eo nomine provision for plywood because it was a mere improvement. Atlas Copco North America, Inc. v. United States, 837 F. Supp. 423 (1993), concerned the tariff classification of an improved kind of bolt that contained within itself the means to deform and develop protrusions upon application of force. The U.S. Court of International Trade concluded that the improvement did not make the bolt into something other than a bolt, albeit it clearly was an improved form of bolt. In United-Carr Fastener Corp. v. United States, 56 Cust. Ct. 347 (1966), at issue was the tariff classification of "tee nuts," which are used in joining component assemblies of wood together, and designed to replace an older, less efficient method of performing the same function with conventional nut, bolt, and washer. The U.S. Customs Court concluded that the "tee nut" is within the common meaning of the term "nuts" and is classified as such, notwithstanding improvements and increased capabilities. Upon review, we find that the above-referenced cases, featuring single-component articles such as the V-grooved plywood panels, bolts and tee nuts, are distinguishable from the instant case. The ice bags with textile covers under consideration are composite goods made up of two components classified under separate classifications. Accordingly, their tariff classification must be determined applying GRI 3(b).

Casio, Inc. v. United States, 73 F.3d 1095 (Fed. Cir. 1996), concerned the tariff classification of synthesizer models that had one or more additional features such as a ROM-Pack melody or teaching aids, sampling effects device, sequencer, auto-rhythm, and auto accompaniment and/or mixer. The U.S. Court of Appeals for the Federal Circuit held that the addition of other features to the synthesizers did not make them "more than" musical instruments and that such models were properly classified as musical instruments. The court further found that the primary design and function of the additional features became part of and enhanced the synthesizers. Upon review, we find that the merchandise at issue here is different from that at

issue in Casio, Inc. v. United States, because the textile covers do not merely enhance the ice bags, but perform a separate function - which is to protect the users from ice burns.

In your request for reconsideration, you also argued that the conclusion that the plastic bags are impractical and hazardous without the textile bag, which adds a new and co-equal function to the article, is wrong. You stated that plastic bags without textile coverings are sold and used as ice bags, and that gel filled bags and chemical filled bags for applying heat and cold are commonly sold and used without protective coverings of any sort. You provided links to Internet research showing that both covered and uncovered ice bags are known in commerce as "ice bags." In this regard, we note that whether ice bags with and without covers are sold in commerce and known as "ice bags" is not at issue. For tariff classification purposes, of importance is the condition of the imported goods at the time of importation. It is a well-established principle that goods must be classified in their condition as imported. See Mita Copystar Am. v. United States, 21 F.3d 1079, 1082 (Fed. Cir. 1994); See also HQ H197758, dated April 27, 2012; HQ H225011, dated November 5, 2013; HQ H154040, dated June 9, 2011; HQ H135335, dated April 18, 2011. In this case, the ice bags at issue are imported together with textile covers. Accordingly, ice bags sold with no covers are not at issue.

In your request for reconsideration, you also stated that in determining whether the addition of a feature to an article is sufficient to change its fundamental identity, the determining factor is whether the additional feature merely enhances the function and use of the article or so alters that function and use as to constitute a new and different article of commerce. You argued that the addition of the textile covers to the ice bags at issue does not change their primary use. You stated that the secondary purpose and legal effect of the textile covers on the ice bags is exemplified by Ashflash Corporation v. United States, 76 Cust. Ct. 112 (1976). In that case, at issue were "blinker lanterns" that functioned as flashlights and roadside warning devices. The U.S. Customs Court found that the blinker lanterns were not simply portable electric lamps because the roadside warning function provided a separate co-equal function to the article, neither of the two functions being subordinate to the other. Upon review, we do not find that this case is illustrative of an instance where one of the components is secondary to the other. In fact, it concerns merchandise with two separate co-equal functions.

You also referenced Astra Trading Corp. v. United States, 56 Cust. Ct. 555 (1966), which involved the tariff classification of a screwdriver with a flashlight component for illumination. The U.S. Customs Court found that the additional feature of illumination did not transform the basic purpose of the imported article from use as a screwdriver into some other use, nor did it give the article a use in addition to its intended use as a screwdriver. Illumination notwithstanding, the article remained essentially a screwdriver. Similarly, in United States v. Oxford International Corp., 517 F.2d 1374 (C.C.P.A. 1975), which you also referenced, the U.S. Court of Customs and Patent Appeals found that rearview bicycle mirror remained a mirror even though it was imported with a mounting bracket, which "merely facilitated the use of the article as a mirror."

Upon review, we find that the ice bags with textile covers differ from the merchandise at issue is Astra Trading Corp. and Oxford International Corp. While in those cases the basic use and purpose of the screwdriver and rearview mirror was not transformed by the addition of other

features, the ice bags and textile covers in this case perform separate purposes and uses, namely, to treat muscle strains or sprains and to protect the users from ice burns. As discussed above, we find that the ice bags and textile covers are composite goods, consisting of two components.

Consistent with GRI 2(b), the classification of composite goods consisting of more than one material or substance shall be according to the principles of GRI 3. Specifically, GRI 3(b) directs that composite goods made up of different components shall be classified as if they consisted of the material or component that gives them their essential character.

The “essential character” of an article is “that which is indispensable to the structure, core or condition of the article, i.e., what it is.” Structural Industries v. United States, 360 F. Supp. 2d 1330, 1336 (Ct. Int'l Trade 2005). EN VIII to GRI 3(b) explains that “[t]he factor which determines essential character will vary as between different kinds of goods. It may, for example, be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of the constituent material in relation to the use of the goods.” Court decisions on the essential character for GRI 3(b) purposes have looked primarily to the role of the constituent material in relation to the use of the goods. See Estee Lauder, Inc. v. United States, 815 F. Supp. 2d 1287, 1296 (Ct. Int'l Trade 2012); Structural Industries v. United States, 360 F. Supp. 2d 1330; Conair Corp. v. United States, 29 C.I.T. 888 (2005); Home Depot USA, Inc. v. United States, 427 F. Supp. 2d 1278 (Ct. Int'l Trade 2006), aff'd 491 F.3d 1334 (Fed. Cir. 2007).

Upon review of the product at issue, we find that although the ice is directly held by the ice bag - the ice bag is virtually unusable without the textile outer layers that protect the user from being burned by the ice. Although the purpose of the ice bag is to provide ice therapy to the user, the bag alone could not be applied to the skin without causing injury. Without the textile outer layers, the bag alone would not be of much more use than applying the ice directly to the skin. It is therefore the textile bag that renders this item functional and consequently, provides this item with essential character.

You argue that the essential character of heating or cooling bags with textile covers is always imparted by the heating or cooling component, regardless of whether such component is built-in and present at the time of importation. In support, you argue that the textile covers have nothing to do with the cooling element in the ice bags and that “all of the common meanings of ‘ice bag’ refer to a waterproof bag to be filled with ice and applied to a portion of the body to be cooled.” You state that in prior rulings, CBP improperly determined that essential character is determined by a heating or cooling element only when such heating or cooling element is present at the time of importation.

We briefly consider several relevant prior rulings. In HQ 966262, dated May 29, 2003, CBP determined that the essential character of a heated head therapy wrap, consisting of a head cover or hood and plastic covered gel packs that can be heated in a microwave and placed inside specially shaped pockets, was imparted by the textile headgear rather than the plastic chemical packet, since the wrap maintains the recognizable shape of the heated wrap. In HQ 957182, dated March 6, 1995, CBP found that the essential character of body/back warmers consisting of energy packs (filled with wax, water, small amounts of emulsifying agents and anti-bacterial agents sealed in plastic) and textile pouches was imparted by wax, which imparts the essential character to the energy packs. In HQ 959825, dated May 19, 1999, CBP found that the essential

character of body pads/back warmers, pocket warmers and comfort wraps, comprised of textile pouches and energy packs (containing chemical mixtures (composed of (a) paraffin wax (a hydrocarbon mixture), water, a surfactant and an antibacterial agent or (b) paraffin wax, silica sand (silicon dioxide, chemical formula SiO<sub>2</sub>), and a non-toxic coloring agent), was imparted by the chemical mixtures. In HQ 964054, dated March 2, 2001, CBP found that the essential character of heating or cooling packs composed of energy packs and textile covers (consisting of water and polyurethane foam sealed in a watertight polyurethane film bag) was imparted by the energy pack.

Upon review, we note that in HQ 966262, the essential character was determined to be imparted by the textile portion (not the heating component) of the therapy wrap. In the other rulings referenced above, the heating/cooling components were determined to impart the essential character based not on the composition of the bags alone, but on the ingredients most vital to the bags' heating or cooling functions, and contained inside at the time of importation: wax in HQ 957182, chemical mixtures in HQ 959825, and polyurethane foam in HQ 964054. In this case, the ice bags are imported empty and contain no ingredients vital to their performance. Therefore, for the reasons discussed above, we find that the essential character of the ice bags under consideration, in their condition as imported, is imparted by the textile component. It should also be noted that even assuming, arguendo, that the essential character of the ice bags at issue could not be determined by application of GRI 3(b), the ice bags would be classified applying GRI 3(c). Under GRI 3(c), the heading which occurs last in numerical order among those which equally merit consideration would determine the tariff classification of the ice bags. Because heading 6307, HTSUS, occurs later in numerical order than heading 3926, HTSUS, even under GRI 3(c) the ice bags at issue would be classified under heading 6307, HTSUS.

Accordingly, we affirm H287971, dated September 29, 2017, which correctly classified the ice bags at issue under subheading 6307.90.98, HTSUS, which provides for "Other made up articles, including dress patterns: Other: Other: Other."

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

**HQ H293457**

April 29, 2019

**CLA-2 OT:RR:CTF:EMAIN H293457 SK**

**CATEGORY:** Classification

**TARIFF NO.:** 8477.80.00

Port Director  
U.S. Customs and Border Protection  
Port of Charleston  
200 East Bay Street  
Charleston, SC 29401

**Attn:** Robert Fencel, Port Director; Randy Rhoades, Senior Import Specialist, Port of Los Angeles/Long Beach; Harriett Carter-Range, Import Specialist, CEE Industrial and Manufacturing Materials.

**RE:** EREMA recycling machine; Plastic granules; Heat exchange; Application for Further Review of lead Protest Number 1601-14-100083; Protest Numbers 1601-13-100278 and 1601-13-100277.

Dear Port Director:

This is in response to an Application for Further Review (AFR) of Protest No. 1601-14-100083 (“lead” protest), timely filed on May 5, 2014, by Polyplex USA LLC (Protestant). The AFR is against U.S. Customs and Border Protection’s (CBP) classification of a recycling machine used to convert trims and scraps of thin polyester film into granules of polyester under the Harmonized Tariff Schedule of the United States (HTSUS). One entry of the subject merchandise was made at the Port of Charleston, South Carolina on June 5, 2012, and liquidated as entered on January 3, 2014 under subheading 8477.80, HTSUS, which provides for other machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter.

This ruling also addresses Protest No’s. 1601-13-100278 and 1601-13-100277, both timely filed on September 20, 2013, which concern entries of substantially similar merchandise and were suspended pending determination of Protest No. 1601-14-100083.

## **FACTS:**

The subject merchandise at issue in Protest No. 1601-14-100083 is identified as an EREMA recycling plant, model 1514 T-DD ecoSAVE. The function of the EREMA recycling plant is to convert trims and scraps of thin polyester film from the main line of the Protestant's BOPET (biaxially oriented polyethylene terephthalate) manufacturing plant into granules of polyester. The resulting granules, along with virgin raw material, are then re-used as raw material and fed back into the main manufacturing line. The subject plant is imported complete, consisting of the following:

- Permanent magnetic trap
- Moisture and dust reduction system (includes filter bags for cyclone, frequency controller for suction fan, up to 7m pipes)
- 1 EREMA "Processing Combination Type PC" featuring: enlarged cutter drum; cutter compactor/liquid-cooled extruder combination (reinforced with 200KW Siemens motor); Siemens CPU; temperature control valve; shock sensor-vibration meter; melt pressure indicator; 4m cable; screw extractor with gear/spindle; interconnection cables

As specified in EREMA's product literature<sup>1</sup>, the processes performed include cutting, drying, condensing, extruding, and die-cutting. Heat is used to melt polymer flakes into polymer. The melted polymer is sent through a die that forms the polymer into strands. The strands pass through a cutter and are cut into resin granules.

The subject plants at issue in Protest No.'s. 1601-13-100278 and 1601-13-100277 are substantially similar in design and function to the plant the subject of lead Protest No. 1601-14-100083, except that they manufacture polyester chips from different raw materials (i.e., terephthalic acid and ethylene glycol). Based on the supplier's letters, the machines at issue in Protest No.s 1601-13-100278 and 1601-13-100277 are identified as the "Pre-Poly," "UPR," and the "Finisher."

In all three Protests, the Protestant submits that heat exchange units perform the primary recycling process (i.e., melting the polyester solids into a liquid) and that classification is proper under subheading 8419.50, HTSUS, as a heat exchange unit. In this regard, the Protestant submitted a statement from the machine's supplier stating that the heat exchange function is not only essential, but the main function of the machine.

## **ISSUE:**

Whether the subject EREMA recycling machine used to convert thin polyester film into polyester granules is classifiable under heading 8419, HTSUS, as machinery, plant, or laboratory equipment, whether or not electrically heated, for the treatment of materials by a process involving a change of temperature, or under heading 8477, HTSUS, as other machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter.

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<sup>1</sup> [https://www.rema.com/us/intarema\\_t\\_te/](https://www.rema.com/us/intarema_t_te/)

## **LAW AND ANALYSIS:**

This matter is protestable under 19 U.S.C. 1514(a)(2) as a decision on classification. The protest was timely filed on April 6, 2015, within 180 days of liquidation, pursuant to 19 U.S.C. 1514(c)(3). Further Review of Protest No. 1601-14-100083 is properly accorded pursuant to 19 CFR § 174.24(b), as this protest is alleged to involve questions of law or fact which have not been ruled upon by the Commissioner of CBP or his designee or by the customs courts. AFR was forwarded for our consideration.

Classification under the HTSUS is in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods will be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 will then be applied in order. GRI 6 provides that classification of goods at the subheading level will be determined according to the terms of those subheadings and any related subheading notes and, *mutatis mutandis*, to the preceding GRIs on the understanding that only subheadings at the same level are comparable.

The HTSUS provisions under consideration are set forth below:

- 8419     Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof
- 8477     Machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter; parts thereof

Note 2 to Chapter 84, HTSUS, states, in relevant part:

2. Subject to the operation of Note 3 to Section XVI and subject to Note 9 of this chapter, a machine or appliance which answers to a description in one or more of the headings of 8401 to 8424, or heading 8486 and at the same time to a description in one or more of the heading 8425 to 8480 is to be classified under the appropriate heading of the former group or under heading 8486, as the case may be, and not the latter group.

Heading 8419 does not, however, cover:

\*     \*     \*

- (e)    Machinery, plant or laboratory equipment, designed for mechanical operation, in which a change of temperature, even if necessary, is subsidiary....

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While not legally binding, the ENs provide a commentary on the scope of each heading of the

HTS and are thus useful in ascertaining the proper classification of merchandise. It is CBP's practice to follow, whenever possible the terms of the ENs when interpreting the HTSUS. See T.D. 89-90, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The EN to heading 84.19 provides, in relevant part:

[T]the heading covers machinery and plant designed to submit materials (solid, liquid or gaseous) to a heating or cooling process in order to cause a simple change of temperature, or to cause a transformation of the materials resulting principally from the temperature change (e.g., heating, cooking, roasting, distilling, rectifying, sterilising, pasteurising, steaming, drying, evaporating, vaporising, condensing or cooling processes). But the heading excludes machinery and plant in which the heating or cooling, even if essential, is merely a secondary function designed to facilitate the main mechanical function of the machine or plant, e.g., machines for coating biscuits, etc., with chocolate, and conches (heading 84.38), washing machines (heading 84.50 or 84.51), machines for spreading and tamping bituminous road-surfacing materials (heading 84.79).

The machinery and plant classified in this heading may or may not incorporate mechanical equipment.

\* \* \*

#### (I) HEATING OR COOLING PLANT AND MACHINERY

This group covers plant of general use in many industries for the simple treatment of materials by heating, boiling, cooking, concentration, evaporation, vaporisation, cooling, etc. They include:

\* \* \*

(B) **Heat exchange units** in which a hot fluid (hot gas, steam or hot liquid) and a cold fluid are made to traverse parallel paths, but usually in opposite directions, separated by thin metal walls in such a manner that the one fluid is cooled and the other heated. These units are usually of the three following types, viz., in the form of:

- (i) Concentric tube systems: one fluid flows in the annular interval, the other in the central tube.
- (ii) A tubular system for the one fluid, enclosed in a chamber through which flows the other fluid, or
- (iii) Two parallel series of interconnected narrow chambers formed of baffle plates.

The EN to heading 84.77 provides, in relevant part:

The heading covers machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this Chapter.

This heading includes:

- (1) Moulding machines for tyres or other articles of rubber or plastics **excluding** moulds as such (headings 68.15, 69.03 and 84.80 in particular).
- (2) Inner-tube valve-hole cutting machines.
- (3) Special rubber-thread cutting machines and appliances.
- (4) Forming presses for rubber or plastics.
- (5) Special presses for moulding thermoplastic powders.
- (6) Presses for making gramophone records.
- (7) Machinery for the manufacture of vulcanised fibre.
- (8) Extruders.

As heading 8477, HTSUS, provides for “[M]achinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter; parts thereof,” the initial determination is whether the subject merchandise is *prima facie* classifiable in heading 8419, HTSUS.

Heading 8419, HTSUS, provides for “[M]achinery, plant or laboratory equipment... for the treatment of materials by a process involving a change of temperature such as heating....” Note 2(e) to Chapter 84, HTSUS, as set forth above, states that “the heading excludes machinery, plant or laboratory equipment in which a change of temperature, even if necessary, is subsidiary. *See also* EN 84.19, which provides that “the heading excludes machinery and plant in which the heating or cooling, even if essential, is merely a secondary function designed to facilitate the main mechanical function of the machine or plant.”

The United States Court of International Trade (CIT) has addressed the scope of heading 8419, HTSUS. In Applied Biosystems v. United States, 34 C.I.T. 769, 777 (Ct. Int'l Trade 2010), the CIT held that the treatment of DNA and RNA materials by a change in temperature was central to the function of the polymerase chain reaction (PCR) machine. By contrast, where the control of temperature is not the primary purpose of laboratory equipment, the CIT has held that such machines fall outside the scope of heading 8419, HTSUS. For example, in Applikon Biotechnology, Inc. v. United States, 807 F. Supp. 2d 1323 (Ct. Int'l Trade 2011), the CIT found that the regulation of temperature was not essential to a machine’s primary purpose of growing cells, concluding in the alternative that the machine’s heating function was “subsidiary to the cell growth function [...] in the same manner that the water heating circuit in a washing machine is subsidiary to its function of cleaning clothes.” Applikon Biotechnology, Inc. v. United States, 807 F. Supp. 2d 1323, 1331 (classifying under heading 8479, HTSUS, a machine

designed to maintain, via a mixing function, an aseptic and homogenous environment in which to culture cells). In reaching its holding, the CIT considered that the merchandise’s temperature control capability was not used by every process for which the machine was suited.

In the instant case, the primary function of the EREMA recycling machine, as its name implies, is to recycle trims and scrap of thin polyester film into granules of polyester for use as raw material in the manufacture of the BOPET. As specified in EREMA’s product literature, the processes performed include cutting, drying, condensing, extruding, and die-cutting. Heat is used to melt polymer flakes into polymer. The melted polymer is sent through a die that forms the polymer into strands and those strands then pass through a cutter and are cut into resin

granules. The EREMA plastic recycling machine's heat exchange units perform only one of several conversion processes that the machine employs to perform its primary recycling function. The role of heat in the function of the EREMA machine, while necessary to melt the polymer flakes, is subsidiary to the primary purpose of recycling. It is further noted that not all of the processes performed by the EREMA plant involve a change of temperature.

Upon application of the CIT's guidance concerning the scope of heading 8419, HTSUS, to the instant merchandise, we do not consider the role of the heating process, as it relates to the overall function of the EREMA machine, to be the primary function; rather, the heating process is but one of several processes that contribute to the overall function of converting trims and scrap of thin polyester film into granules of polyester. As such, classification in heading 8419, HTSUS, is precluded by application of Note 2(e) to Chapter 84.

The subject EREMA recycling plant is described by heading 8477, HTSUS, and classified under subheading 8477.80, HTSUS, which provides for other machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter (chapter 84).

This determination is consistent with New York Ruling Letter (NY) D84411, dated November 24, 1998, in which CBP classified a pelletizing machine used in the recycling of polypropylene and ABS plastic scrap in subheading 8477.59.80, HTSUS, which provides for machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere (in chapter 84): other machinery for molding or otherwise forming: other. The machine utilized a heated screw to melt the scrap and force the molten material through a die, forming it into strands. The unit then cuts the strands, producing pellets which are re-used as raw material in the molding process.

## **HOLDING:**

By application of GRI's 1 and 6, the subject EREMA recycling plant is classified in heading 8477, HTSUS, specifically under subheading 8477.80.00, HTSUS, which provides for "other machinery for working rubber or plastics or for the manufacture of products from these materials, not specified or included elsewhere in this chapter."

The 2015 column one, general rate of duty is 3.1 percent *ad valorem*. Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided online at <http://www.usitc.gov/tata/hts/>.

You are instructed to DENY the protest. In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with CBP Form 19, to the Protestant no later than 60 days from

the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, CBP will make the decision available to CBP personnel and the public via [www.cbp.gov](http://www.cbp.gov), the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H296917

August 27, 2018

**OT: RR: CTF: EMAIN:** H296917 PF

**CATEGORY:** Classification

**TARIFF NO.:** 8431.20.00

Jennie Baldwin  
Michelin North America  
One Parkway South 29615  
P.O. Box 19001  
Greenville, SC 29602

Re: Request for Reconsideration of NY N284492; Classification of Michelin Tweels for Skid Steer Loaders; Revocation of HQ 088585 and HQ 955547 by operation of law

Dear Ms. Baldwin:

This is in response to your letter, dated March 15, 2018, in which you request reconsideration of New York Ruling Letter ("NY") N284492. NY N284492, issued to you on April 7, 2017 by U.S. Customs and Border Protection ("CBP"), involves classification of certain Michelin Tweels under the Harmonized Tariff Schedule of the United States ("HTSUS"). In NY N284492, we classified four types of Michelin Tweels, but your request for reconsideration only challenges the classification of "Michelin X Tweel SSL Hard Surface & Hard Surface Traction for Skid Steer Loaders" and "Michelin X Tweel SSL All Terrain for Skid Steer Loaders" ("Michelin Tweels for Skid Steer Loaders"). As a result, our review of NY N284492 is limited to evaluating the classification of these two types of products. We have determined that NY N284492 is correct, and, for the reasons set forth below, are affirming that ruling.

NY 284492 provided the following description of the Michelin Tweels for Skid Steer Loaders:

Michelin X Tweel SSL Hard Surface & Hard Surface Traction for Skid Steer Loaders (CAI# 040921 and CAI# 619642), are designed to help provide maximum tread life on pavement. Maximum load @ 15km/h is 4,400 lbs.

Michelin X Tweel SSL All Terrain for Skid Steer Loaders (CAI# 357108 and CAI# 297671), The all terrain model is ideal for use on a wide range of surfaces. Maximum load @ 15km/h is 3,700-4,400 lbs.

The product literature for the Michelin Tweels for Skid Steer Loaders describes them as "designed for use on skid steer loaders." The product literature notes that the "All Terrain model is ideal for use on a wide range of surfaces while the Hard Surface Traction models help provide maximum tread life on pavement."

A skid steer loader is a small compact machine with lift arms. It is designed to work in compact areas. A wide variety of tools can be attached to these arms such as angle brooms, augers, backhoes, bucks and pallet forks. Depending on the attachment used, a skid steer loader can be used in pushing material from one location to another, carrying material in a bucket, or loading material into a truck or trailer.

The HTSUS provisions under consideration in this reconsideration are as follows:

- 8427 Fork-lift trucks; other works trucks fitted with lifting or handling equipment
- 8429 Self-propelled bulldozers, angledozers, graders, levelers, scrapers, mechanical shovels, excavators, shovel loaders, tamping machines and road rollers
- 8431 Parts suitable for use solely or principally with the machinery of headings 8425 to 8430

The Explanatory Notes (EN) to the Harmonized Commodity Description and Coding System represent the official interpretation of the tariff at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

EN 84.27 states in pertinent part:

[T]his heading covers works trucks fitted with lifting or handling equipment. Works trucks of this description include, for example:

**(A) FORK-LIFT AND OTHER ELEVATING OR STACKING TRUCKS**

\* \* \*

The lifting device of the above trucks is normally powered by the motive power unit of the vehicle, and is usually designed to be fitted with various special attachments (forks, jibs, buckets, grabs, etc.) according to the type of load to be handled.

\* \* \*

## (B) OTHER WORKS TRUCKS FITTED WITH LIFTING OR HANDLING EQUIPMENT

This group includes:

\* \* \*

(2) **Other trucks** fitted with lifting or handling equipment including those specialised for use in particular industries (e.g., in the textile or ceramic industries, in dairies, etc.).

## PARTS

**Subject** to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), parts of the trucks of this heading are classified in **heading 84.31**.

EN 84.29 provides in relevant part:

The heading covers a number of earth digging, excavating or compacting machines which are explicitly cited in the heading and which have in common the fact that they are all self-propelled.

In NY N284492, CBP classified the Michelin Tweels for Skid Steer Loaders in subheading 8431.20.00, HTSUS, which provides for "Parts suitable for use solely or principally with the machinery of headings 8425 to 8430: Of machinery of heading 8427." There is no dispute that the Michelin Tweels for Skid Steer Loaders are "parts" of a skid steer loader. However, you maintain that a skid steer loader should be classified in heading 8429, HTSUS, which provides for "Self-propelled bulldozers, angledozers, graders, levelers, scrapers, mechanical shovels, excavators, shovel loaders, tamping machines and road rollers" instead of heading 8427, HTSUS, which provides for "Fork-lift trucks; other work trucks fitted with lifting and handling equipment."

A skid steer loader is properly classified in heading 8427, HTSUS, because it is a work truck fitted with lifting or handling equipment. A skid steer loader has lift arms and a wide variety of tools can be added to these arms, including pallet forks, augers, buckets, and backhoes which are used for lifting, pushing, and pulling. EN 84.27, HTSUS, also supports the classification of a skid steer loader in heading 8427, HTSUS, because it is a work truck "designed to be fitted with various special attachments (forks, jibs, buckets, grabs, etc.) according to the type of load to be handled." See EN 84.27(A)(1).

The Court of International Trade ("CIT") addressed the classification of skid steer loaders in Thomas Equipment Limited v. United States and determined that skid steer loaders were work trucks with lifting and handling equipment of heading 8427, HTSUS. See 881 F. Supp. 611, Slip Op. 95-29 (Ct. Int'l Trade 1995). The CIT rejected the classification of skid steer loaders in heading 8429, HTSUS, and noted that heading 8429, HTSUS, covered more specialized kinds of machines that manipulated the earth. In reaching its determination, the CIT compared the language of the Tariff Schedules of

the United States with the HTSUS, the Explanatory Notes for headings 8427 and 8429, HTSUS, and an U.S. International Trade Conversion Report. The CIT determined that skid steer loaders remained classified in heading 8427, HTSUS, based on a finding of a uniform and established classification practice. As a result, all prior rulings classifying skid steer loaders in heading 8429, HTSUS, were revoked by operation of law.

CBP has also classified similar articles in NY J81427, dated March 7, 2003. In J81427, an all surface loader that was designed for working in compact areas and used attachments such as buckets, pallet forks, power augers, snow blowers, among other attachments, was classified in heading 8427, HTSUS. CBP determined that the all surface loader was substantially similar to a skid steer loader and that both remained classified in heading 8427, HTSUS.

Lastly, we recognize that in Headquarters Ruling ("HQ") 088585, dated May 2, 1991 and HQ 955547, dated March 24, 1994, CBP classified similar articles in subheading 8429, HTSUS. However, those rulings were issued prior to the Thomas Equipment decision and, to the extent they are inconsistent with the Thomas Equipment decision, are revoked by operation of law. Consequently, HQ 088585 and HQ 955547 do not preclude classification of a skid steer loader in heading 8427, HTSUS and as "parts" of a skid steer loader in subheading 8431.20.00, HTSUS.

For all the aforementioned reasons, we hereby affirm NY N284492. Accordingly, the subject Michelin Tweels for Skid Steer Loaders remain classified in heading 8431, HTSUS, specifically in subheading 8431.20.00, HTSUS, as "Parts suitable for use solely or principally with the machinery of headings 8425 to 8430: Of machinery of heading 8427."

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H296917

August 27, 2018

**OT: RR: CTF: EMAIN:** H296917 PF

**CATEGORY:** Classification

**TARIFF NO.:** 8431.20.00

Jennie Baldwin  
Michelin North America  
One Parkway South 29615  
P.O. Box 19001  
Greenville, SC 29602

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The HTSUS provisions under consideration in this reconsideration are as follows:

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The lifting device of the above trucks is normally powered by the motive power unit of the vehicle, and is usually designed to be fitted with various special attachments (forks, jibs, buckets, grabs, etc.) according to the type of load to be handled.

\* \* \*

## (B) OTHER WORKS TRUCKS FITTED WITH LIFTING OR HANDLING EQUIPMENT

This group includes:

\* \* \*

(2) **Other trucks** fitted with lifting or handling equipment including those specialised for use in particular industries (e.g., in the textile or ceramic industries, in dairies, etc.).

## PARTS

**Subject** to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), parts of the trucks of this heading are classified in **heading 84.31**.

EN 84.29 provides in relevant part:

The heading covers a number of earth digging, excavating or compacting machines which are explicitly cited in the heading and which have in common the fact that they are all self-propelled.

In NY N284492, CBP classified the Michelin Tweels for Skid Steer Loaders in subheading 8431.20.00, HTSUS, which provides for "Parts suitable for use solely or principally with the machinery of headings 8425 to 8430: Of machinery of heading 8427." There is no dispute that the Michelin Tweels for Skid Steer Loaders are "parts" of a skid steer loader. However, you maintain that a skid steer loader should be classified in heading 8429, HTSUS, which provides for "Self-propelled bulldozers, angledozers, graders, levelers, scrapers, mechanical shovels, excavators, shovel loaders, tamping machines and road rollers" instead of heading 8427, HTSUS, which provides for "Fork-lift trucks; other work trucks fitted with lifting and handling equipment."

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the United States with the HTSUS, the Explanatory Notes for headings 8427 and 8429, HTSUS, and an U.S. International Trade Conversion Report. The CIT determined that skid steer loaders remained classified in heading 8427, HTSUS, based on a finding of a uniform and established classification practice. As a result, all prior rulings classifying skid steer loaders in heading 8429, HTSUS, were revoked by operation of law.

CBP has also classified similar articles in NY J81427, dated March 7, 2003. In J81427, an all surface loader that was designed for working in compact areas and used attachments such as buckets, pallet forks, power augers, snow blowers, among other attachments, was classified in heading 8427, HTSUS. CBP determined that the all surface loader was substantially similar to a skid steer loader and that both remained classified in heading 8427, HTSUS.

Lastly, we recognize that in Headquarters Ruling ("HQ") 088585, dated May 2, 1991 and HQ 955547, dated March 24, 1994, CBP classified similar articles in subheading 8429, HTSUS. However, those rulings were issued prior to the Thomas Equipment decision and, to the extent they are inconsistent with the Thomas Equipment decision, are revoked by operation of law. Consequently, HQ 088585 and HQ 955547 do not preclude classification of a skid steer loader in heading 8427, HTSUS and as "parts" of a skid steer loader in subheading 8431.20.00, HTSUS.

For all the aforementioned reasons, we hereby affirm NY N284492. Accordingly, the subject Michelin Tweels for Skid Steer Loaders remain classified in heading 8431, HTSUS, specifically in subheading 8431.20.00, HTSUS, as "Parts suitable for use solely or principally with the machinery of headings 8425 to 8430: Of machinery of heading 8427."

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300063

December 11, 2019

**CLA-2 OT:RR:CTF:EMAIN H300063 PF**

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Port Director  
U.S. Customs and Border Protection  
John F. Kennedy International Airport  
Building 77, 2nd Floor  
Jamaica, NY 11430

Attn: Gregory Dailey, Import Specialist

**Re:** Protest and Application for Further Review No: 4701-2018-100232; Classification of a Bitmain Antminer S9 Bitcoin Miner

Dear Port Director:

The following is our decision as to Protest and Application for Further Review No. 4701-2018-100232, which was filed on June 20, 2018 on behalf of North Country Data Center Corporation (“Protestant”). The protest pertains to the classification of a Bitmain Antminer S9 Bitcoin Miner (“Antminer S9”) under the Harmonized Tariff Schedule of the United States (“HTSUS”).

The subject merchandise was entered by protestant on July 24, 2017 at the John F. Kennedy International Airport. On January 5, 2018, CBP liquidated the entry under subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.”

On June 20, 2018, protestant filed a protest and AFR regarding the tariff classification of the subject merchandise and claiming that the correct classification of the subject merchandise should be in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing

one or two of the following types of unit: storage units, input units, output units.” In the alternative, protestant maintains that the subject merchandise should be classified in subheading 8471.80.90, HTSUS, which provides for Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Other units of automatic data processing machines: Other: Other.”

Our decision takes into account the arguments presented during a February 27, 2019 meeting and supplemental submissions received on March 14, 2019 and April 26, 2019.

## FACTS:

The subject Antminer S9 is a machine used in mining various types of cryptocurrency. Cryptocurrency is defined as a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.<sup>1</sup> Individuals who possess cryptocurrency, such as Bitcoin, and seek to conduct a financial transaction rely on the network of “miners” to validate their transactions through mining.

The act of “mining cryptocurrency” is the process of updating a ledger of cryptocurrency transactions known as the blockchain. The blockchain is a series of blocks and a block is a collection of cryptocurrency transactions.<sup>2</sup> Mining is done by application specific integrated circuit (“ASIC”) miners, such as the subject Antminer S9, which compete against other cryptominers in an attempt to guess a specific number that is associated with a block containing transaction data. The first cryptominer to guess the correct number is rewarded by being able to authorize the transaction, update the blockchain, and receive a fraction of cryptocurrency.

The Antminer S9 consists of an aluminum enclosure, two cooling fans, a controller printed circuit board assembly (“PCBA”), three separate PCBAs that are commonly referred to as hashboards, and 189 ASIC chips. The Antminer S9 requires at least one separate external power supply unit (“PSU”) that is attached to the hashboards and controller board, but may use up to three PSUs, one for each hashboard, depending on the capabilities of the PSUs employed. Once power is supplied to the Antminer S9 and the unit is connected to a dynamic host configuration protocol (“DHCP”) network, the Antminer S9 will obtain an IP address automatically from a DHCP server. In order to verify the IP address, a user will download the Antminer S9’s software on an automatic data processing (“ADP”) machine, click on the IP Report button on the controller board, and view the IP address in a window on a computer screen.<sup>3</sup> A user will subsequently open a browser, enter the IP address and a

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<sup>1</sup> See <https://en.oxforddictionaries.com/definition/cryptocurrency> (last visited May 20, 2019).

<sup>2</sup> See Joseph W. Guzzetta, How Bitcoin Works-A Technological Description of Blockchain-Based Cryptocurrencies for Nontechnical Lawyers, The Computer & Internet Lawyer, Vol. 35, No. 3 (2018).

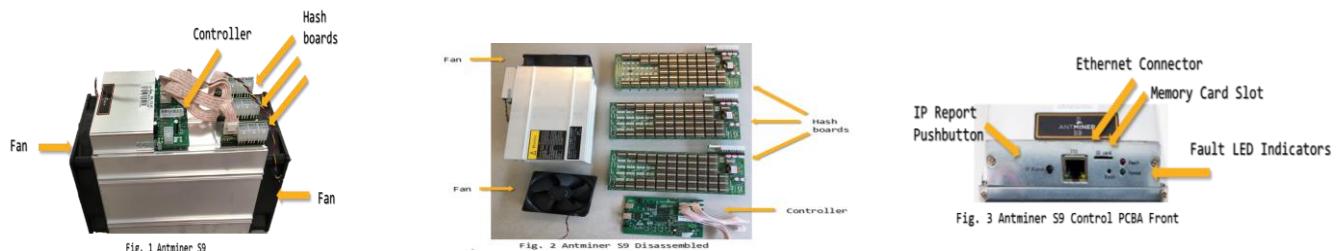
<sup>3</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

username and password, and configure the Antminer S9. Once configured, the Antminer S9 receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with the mining pool. Neither the power supply nor the ADP machine are imported with the Antminer S9.

The controller boards contain a single Ethernet RJ45 connection, a reset button, status LED indicator(s), and a memory card slot. The memory card is used to update the controller's firmware or hardware recovery. Each hashboard is populated with numerous ASICs and heat sinks on both sides. The hashboards slide into the aluminum enclosure and are connected to the control board through a ribbon cable on the data connector. There is no "motherboard" or backplane slot that connects the hashboards to the controller, they merely rest vertically in a channel inside the enclosure.

The Antminer S9 has minimal onboard flash memory and otherwise does not include a storage medium. There is no method for connecting a storage unit like a solid state drive or hard disk drive. A user cannot install, modify or remove program applications on the Antminer S9. The Antminer S9 also does not have a graphics interface, USB or similar control interface, a Bluetooth interface, audio input/output or a power supply. The Antminer S9 does not allow for general purpose computing tasks nor is it capable of displaying graphics. The Antminer S9 is programmed through firmware updates held on the memory card and configured and initialized through a network/Ethernet connected ADP machine. Mining functions are measured in "hash" calculations and are depicted as MH, GH, or TH.<sup>4</sup>

Pictures of the Antminer S9 are provided below:




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<sup>4</sup> A hash rate is the speed at which a given mining machine performs complex computations to find blocks. The mining machine has to make thousands or even millions of guesses per second to find the right answers to solve the block. MH refers to "megahash," or a million hash calculations per second, GH refers to "gigahash," or a billion hash calculations per second, and TH refers to "terrahash" or a trillion guesses per second.

**ISSUE:**

Whether the Antminer S9 is classified as a processing unit of heading 8471, HTSUS, as a unit of an ADP machine of heading 8471, HTSUS, or as an electrical machine and apparatus, having individual functions, not specified or included elsewhere in Chapter 85, of heading 8543, HTSUS.

**LAW AND ANALYSIS:**

Initially, we note that the matters protested are protestable under 19 U.S.C. §1514(a) (2) as decisions on classification. The protest was timely filed, within 180 days of liquidation of the first entry. (Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006)). Further Review of Protests No. 3004-17-100339 is properly accorded to Protestant pursuant to 19 C.F.R. § 174.24(b) because the decision against which the protest was filed is alleged to involve questions of law or fact, which have not been ruled upon by the Commissioner of Customs or his designee, or by the courts.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The 2018 HTSUS headings under consideration are as follows:

- |                   |  |
|-------------------|--|
| <b>8471</b>       | Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included.... |
| <b>8471.50.01</b> | Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units....                      |
| <b>8471.80</b>    | Other units of automatic data processing machines:<br><br>Other:   |
| <b>8471.80.90</b> | Other.   |

**8543** Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof....

8543.70 Other machines and apparatus:

Other:

Other:

8543.70.99 Other.

Additional U.S. Rules of Interpretation 1 (AUSR1), HTSUS, provides, in part:

In the absence of special language or context which otherwise requires:

- (a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use[.]

ADP machines are defined in Legal Note 5(A) to Chapter 84, HTSUS, which provide as follows:

For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:

- (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
- (ii) Being freely programmed in accordance with the requirements of the user;
- (iii) Performing arithmetical computations specified by the user; and
- (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.

To be classified as an ADP unit under heading 8471, HTSUS, an article must meet the terms of Legal Note 5(C) to Chapter 84, HTSUS, which provides that:

Subject to paragraphs (D) and (E) below, a unit is to be regarded as being a part of an automatic data processing system if it meets all the following conditions:

- (i) It is of a kind solely or principally used in an automatic data processing system;

- (ii) It is connectable to the central processing unit [CPU] either directly or through one or more other units; and
- (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

Separately presented units of an automatic data processing machine are to be classified in heading 8471....

In understanding the language of the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System, which constitute the official interpretation of the HTSUS at the international level, may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).

The ENs to heading 8471 provide, in pertinent part:

#### **(I) AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF**

Data processing is the handling of information of all kinds, in pre-established logical sequences and for a specific purpose or purposes.

Automatic data processing machines are machines which, by logically interrelated operations performed in accordance with pre-established instructions (program), furnish data which can be used as such, or, in some cases, serve in turn as data for other data processing operations.

This heading covers data processing machines in which the logical sequences of the operations can be changed from one job to another, and in which the operation can be automatic, that is to say with no manual intervention for the duration of the task....

However, the heading **excludes** machines, instruments or apparatus incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines, instruments or apparatus are classified in the headings appropriate to their respective functions or, failing that, in residual headings (See Part (E) of the General Explanatory Note to this Chapter).

#### **(A) AUTOMATIC DATA PROCESSING MACHINES**

The automatic data processing machines of this heading must be capable of fulfilling **simultaneously** the conditions laid down in Note 5(A) to this Chapter.  
[...]

Thus, machines which operate only on fixed programs, i.e., programs which cannot be modified by the user, are **excluded** even though the user may be able to choose from a number of such fixed programs.

These machines have storage capability and also stored programs which can be changed from job to job....

### (B) SEPARATELY PRESENTED UNITS

....Constituent units are those defined in Part (A) above and in the following paragraphs, as being parts of a complete system.

An apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- (a) Performs a data processing function;
- (b) Meets the following criteria set out in Note 5 (C) to this Chapter:
  - (i) It is of a kind solely or principally used in an automatic data processing system;
  - (ii) It is connectable to the central processing unit either directly or through one or more other units; and
  - (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter....

The EN to heading 8543, HTSUS, provides in pertinent part:

This heading covers all electrical appliances and apparatus, **not falling** in any other heading of this Chapter, **nor covered more specifically** by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.

The electrical appliances and apparatus of this heading must have individual functions. The introductory provisions of Explanatory Note to heading 84.79 concerning machines and mechanical appliances having individual functions apply, *mutatis mutandis*, to the appliances and apparatus of this heading.

The EN to heading 8479, HTSUS, provides, in relevant part:

For this purpose the following are to be regarded as having "individual functions":

- (A) Mechanical devices, with or without motors or other driving force, whose function can be performed distinctly from and independently of any other machine or appliance.

The Antminer S9 is capable of "storing the processing program or programs and at least the data immediately necessary for the execution of the program;" "performing

arithmetical computations specified by the user;" and "executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run." See Note 5(A)(i), (iii) and (iv) to Chapter 84, HTSUS. At issue in this case is whether the device is "capable of ... being freely programmed in accordance with the requirements of the user." See Note 5(A)(ii) to Chapter 84, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) ("Optrex"), the U.S. Court of Appeals for the Federal Circuit ("CAFC") upheld CBP's longstanding interpretation that a "freely programmable" ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. See also Headquarters Ruling Letter ("HQ") 964880, dated December 21, 2001. The Optrex court noted that "[CBP's] interpretation is supported by the World Customs Organization's Explanatory Notes [...] which provide that 'machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.' Explanatory Note 84.71(I)(A)." Id. at 1370. The court added that "[a]pplication programs are not 'fixed' because they can be installed or deleted from a machine." 427 F. Supp. 2d at 1197.

CBP has ruled that devices which enable the user to decide which applications to install or delete from the device are freely programmable. For example, in HQ 964880, supra, CBP examined the classification of the Palm VII and VIIx – personal digital assistants ("Palm PDAs") with Internet connectivity. Both models used Palm's 3.2.0 OS, a 16MHz microprocessor, and came with 2 MB of random access memory and 2 MB of read-only memory. They were imported with pre-installed applications (including a date book, an address book, a memo pad, and desk top e-mail connectivity software) and could accept additional applications that were available directly from Palm or from third-party vendors. In finding that the devices were freely programmable, CBP stressed the fact that they could be programmed in several ways: directly on the devices, with a host computer to generate a generic application, or with a host computer to generate a native application. CBP also noted that:

- (a) the Palm [OS] is an open operating system; programming tools are readily available to any user either directly from Palm or from other commercial sources;
- (b) programming tools are readily available to any user either directly from Palm or from other commercial sources; [and]
- (c) hundreds of software applications are currently available for the Palm OS through a variety of vendors who distribute them either as freeware, shareware, or commercial applications ...

CBP classified the PDAs in subheading 8471.30.00, HTSUS, as portable ADP machines.

Conversely, in HQ H026665, dated July 9, 2008, CBP ruled that the AIDA System Compact II, a machine used in hospitals to archive images, video and audio files associated with patient information onto a database, was not freely programmable because users were not free to add or remove software from the device. There, CBP noted, first, that the importer could not provide "... an affirmative representation that the hardware and software are installed into the AIDA without any proprietary restrictions or blocks" and second, that "the software installation manual and license prohibited the downloading of additional software and also identified such action as an impediment to the operation of the device."

Similarly, in HQ 964682, dated July 15, 2002, we determined that the Sony PlayStation2 ("PS2"), a video game console, was not freely programmable because:

[p]roprietary blocks in the PS2 prevent the console from running any commercially available Linux OS and only specially designed Sony disks can be read by the system. If a non-PS2 compatible disc is inserted in the console, the hardware layer (with the firmware) determines that the disc does not contain one of the accepted formats and thus does not acknowledge it as accepted media.

Significantly, we noted that to run additional Linux-based programs on the PS2, the user was required to install Sony's version of the Linux OS, which was not included with the console. Moreover, in HQ 952862, dated November 1, 1994, CBP determined that Teklogix data collection devices were not freely programmable, in part, because they were not "general purpose" machines and were designed for certain specific applications and could not by themselves perform the typical applications of computers or personal computers. HQ 952862 discussed the concept of freely programmable by examining the definitions of computer and personal computer and stated as follows:

"In determining whether a particular machine is "freely programmable," it is helpful to examine the definitions of the terms "computer" and "personal computer." A computer, which is freely programmable, is a "[g]eneral-purpose machine that processes data according to a set of instructions that are stored internally either temporarily or permanently." A. Freedman, *The Computer Glossary*, Sixth Edition, pg. 95 (1993). A personal computer "is functionally similar to larger computers, but serves only one user. It is used at home and in the office for almost all applications traditionally performed on larger computers." *Computer Glossary* (1993), pg. 400. Personal Computers "are typically used for applications, such as word processing, spreadsheets, database management and various graphics-based programs, such as computer-aided design (CAD) and desktop publishing. They are also used to handle traditional business applications, such as invoicing, payroll and general ledger. At home, personal computers are primarily used for games, education and word processing." A. Freedman, *The Computer Glossary*, Fourth Edition, pg. 524 (1989). Because they can perform any of the above-listed applications, personal computers are considered to be "freely programmable."

Applying Optrex and CBP's administrative precedent, we conclude that the

Antminer S9 is not a freely programmable ADP machine. The Antminer S9 is comprised of 189 ASIC chips. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin mining algorithm.<sup>5</sup> The Antminer S9 is designed and developed hardware right down to the chip level. In this case, the Antminer S9 is specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on an Antminer S9. Unlike the Palm PDAs in HQ 964880, the Antminer S9's architecture is not based on an open system design.

In addition, a user cannot install, modify or remove program applications on the Antminer S9. For example, the Antminer S9 cannot receive third-party applications, such as a word processing program or a virus protection program. EN 84.71(I)(A) provides that machines which operate only on fixed programs that cannot be modified by the user are excluded from heading 8471, HTSUS, even when the user may be able to choose from a number of such fixed programs. In this case, the Antminer S9 operates on fixed programs and does not accept the installation or removal of applications at will.

The protestant alleges that the Antminer S9 runs on a Linux operating system. However, a user cannot load an operating system, such as the Linux, onto the Antminer S9. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Antminer S9 itself. Therefore, the Antminer S9 does not have a functional operating system with which to perform additional tasks. The programming installed onto the Antminer S9 is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The protestant also contends that the Antminer S9 can run on a Braiins “operating system,” (“OS”).<sup>6</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. The Braiins is described as being “mostly on par with vendor firmware . . . [i]t monitors the hardware and working conditions, handles errors and provides various performance data.”<sup>7</sup> Moreover, the Braiins is referred to as the “very first fully open-source, Linux based system for cryptocurrency embedded devices” and attempts to develop a firmware to allow users of the Antminer S9 to benefit from power

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<sup>5</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that “ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.”).

<sup>6</sup> See <https://braiins-os.org/> (last visited May 20, 2019) and <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>7</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019); see also [https://medium.com/@braiins\\_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76](https://medium.com/@braiins_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76) (last visited May 20, 2019) (noting that the “most wanted feature being the S9 automatic per-chip frequency calibration mechanism” which achieves “optimum performance.”).

savings and performance improvements.<sup>8</sup> As a result, the Braiins is marketed to improve power saving and performance on miners, including the Antminer S9. The Braiins is not marketed nor does it purport to contain additional features or functions, such as the installation of third-party programs.<sup>9</sup>

Moreover, while the protestant maintains that the Braiins can be installed directly onto the Antminer S9, a quick-start guide to Braiins highly recommends installing the firmware on the SD card of a mining machine versus installing on the mining machine itself. The Braiins website further explains that if a user encounters any issues, it can “simply boot the stock firmware from the internal memory. This is a safe way we suggest to start with.”<sup>10</sup> Notably, in HQ 964682, we determined that a PS2 was not freely programmable where an installed version of an OS had to be booted through a DVD-ROM drive and these programs could only be read from an external disc drive on the Internet connected to the PS2.

Protestant further maintains that Braiins can run multiple applications on its OS, which in turns makes the Antminer S9 freely programmable and provided a list of “applications” that purportedly run on the Braiins. However, we could not find support for the protestant’s claim that the Braiins accepts the installation of additional software nor that the installation of additional software on the Braiins would not act as an impediment to the operation of the Antminer S9. Since the processors on the Antminer S9 are specialized toward mining cryptocurrency, the Antminer S9 would likely run any other program very poorly, if at all.

Indeed, the manufacturer of the Antminer S9, Bitmain, does not warrant preloaded firmware on its products nor does it warrant that the operation of upgraded firmware will be error free.<sup>11</sup> Bitmain also does not warrant “unauthorized alterations done to the hardware and firmware by any third party.” As a result, if the Braiins caused an error on the Antminer S9, the manufacturer, Bitmain would likely void the Antminer S9’s warranty. Based on these facts, we do not find that the Antminer S9 is freely programmable.

The Antminer S9 is simply not a general purpose machine because it cannot perform general purpose computing tasks. The Antminer S9 does not have input ability for a keyboard or mouse nor does it have output ability for a printer. The Antminer S9 has no word processing functions, nor can it perform calendar, music, or game applications. The Antminer is not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Its functions as imported, are limited to performing hash calculations. These limitations preclude the use of the

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<sup>8</sup> <https://braiins-os.org/> (last visited May 20, 2019).

<sup>9</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019) (noting that the Braiins is still in a testing phase and recommends that its software not to be used on whole mining farms).

<sup>10</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>11</sup> See <https://service.bitmain.com/support/terms> (last visited May 20, 2019).

Antminer S9 for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

We also note that EN 84.71(I)(A) requires that ADP machines have “storage capability and also stored programs which can be changed from job to job.” The Antminer S9 has minimal onboard flash memory that is used merely to configure the machine for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Antminer S9 also does not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive. As a result, the Antminer S9 does not have sufficient memory to store and execute standard applications, unlike the Palm PDAs in HQ 964880.

The protestant relies on New York Ruling (“NY”) N285104, dated April 24, 2017, where CBP classified a credit-card sized, single board, fully functional personal computer (“Raspberry Pi”) in heading 8471, HTSUS and found that the machine was freely programmable. The Raspberry Pi was capable of using multiple types of operating systems and had numerous applications that were available for download onto the device. The Raspberry Pi was noted to work as a miniature personal computer that could perform tasks solely based on the needs of the user. There were also no hardware or software blocks preventing an end user from downloading and executing installed programs or off-the shelf software applications or performing tasks traditionally achieved by a typical laptop or personal computer. Unlike the Raspberry Pi, the Antminer S9 is not an open source device. In addition, the Antminer S9 is restricted to one function, which is mining, and is not capable of using multiple types of operating systems nor can it receive or download installed programs or off-the shelf software applications. The Antminer S9 also does not perform tasks traditionally performed by a laptop or personal computer. Therefore, NY N285104 is not applicable.

For the foregoing reasons, we find that the Antminer S9 is not “freely programmable” as required by Note 5(A)(ii) to Chapter 84, HTSUS. Therefore, the Antminer S9 does not meet the requirements of Note 5(A) to Chapter 84, HTSUS, and it is not an ADP machine of heading 8471.50, HTSUS.

In the alternative, the protestant maintains that the Antminer S9 is a unit of an ADP machine, and is classified in subheading 8471.80.90, HTSUS. In order to be a unit of an ADP machine, we must consider the requirements for units of ADP machines that are set forth in Note 5(C) to Chapter 84. While the Antminer S9 indirectly connects to a CPU via a network, it is not of a kind that is solely or principally used in an ADP system. See Note 5(C)(i) to Chapter 84 and BenQ Am. Corp. v. United States, 646 F.3d 1371, 1379-81 (Fed. Cir. 2011).

For articles governed by principal use, Additional U.S. Rule of Interpretation 1(a), HTSUS, provides that, in the absence of special language or context which otherwise requires, such use “is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use.” In other

words, the article's principal use at the time of importation determines whether it is classifiable within a particular class or kind of merchandise. See BenQ, 646 F.3d at 1379-1380.

While Additional U.S. Rule of Interpretation 1(a), HTSUS, provides general criteria for discerning the principal use of an article, it does not provide specific criteria for individual tariff provisions. However, the courts have provided factors which are indicative but not conclusive, to apply when determining whether merchandise falls within a particular class or kind. They include: general physical characteristics, the expectation of the ultimate purchaser, channels of trade, environment of sale (accompanying accessories, manner of advertisement and display), use in the same manner as merchandise which defines the class, economic practicality of so using the import, and recognition in the trade of this use. See United States v. Carborundum Co., 63 C.C.P.A 98, 102, 536 F. 2d 373, 377 (1976), cert. denied, 429 U.S. 979. CBP has applied this principle in subsequent rulings. See, e.g., HQ 082780, dated December 18, 1989. This principle has been carried over to the HTSUS, as courts have determined that principal use under the HTSUS is defined as the use which "exceeds all other uses." See Lenox Collections v. United States, 20 C.I.T. 194, 196 (1996).

There is no dispute that the Antminer S9 receives its configuration and initialization instructions from an ADP system via a network connection. However, once the Antminer S9 is configured, it receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with a mining pool after it is configured and initialized. The Antminer S9 performs the hash calculations autonomously and, as a result, the Antminer S9 is dedicated to a particular function that does not rise to the level of "solely or principally used in an [ADP] system."

In addition, an installation guide for the Antminer S9 provides instructions on how to configure, monitor, and administer the machine using an ADP system, but does not indicate that an ADP system is needed to perform the principal function of hash calculations.<sup>12</sup> A website that reviews the Antminer S9 also describes this machine as a "self-contained unit" and provides that:

The S9 is a self-contained unit, excluding the power supply. No connection is needed to another computer to interface with other Bitcoin nodes. Its onboard web management portal allows for a simplified setup and maintenance process.<sup>13</sup>

While an ADP system is used to set-up and configure the Antminer S9, the Antminer's controller board and individual hashboards perform the principal function of the machine, which is to perform hash calculations. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of

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<sup>12</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

<sup>13</sup> See <https://www.bitcoinmining.com/bitmain-antminer-s9-review-bitcoin-mining/> (last visited May 20, 2019).

these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining. This function is performed without the assistance of an ADP system, which only serves as an interface to the Antminer S9. Based on the Carborundum factors and the information above, we find that the principal use of the subject Antminer S9 is not as a unit of an ADP machine, and that Note 5(C)(i) to Chapter 84, HTSUS, is not satisfied.

Assuming arguendo that the subject merchandise satisfies the requirements of Note 5(C)(i) through 5(C)(iii), supra, we note that Note 5(C) is still subject to Note 5(E) to Chapter 84. In this respect, we find that the Antminer is excluded from heading 8471, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS. Note 5(E) provides that:

Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective function or, failing that, in residual headings.

The term “data processing” is not defined in the HTSUS. As such, it must be construed in accordance with its common meaning, which may be ascertained by reference to “dictionaries, scientific authorities, other reliable information sources,” “lexicographic and other materials” and to the pertinent ENs. C.J. Tower & Sons v. United States, 69 C.C.P.A. 128, 673 F.2d 1268, 1271 (1982); Simod America Corp. v. United States, 872 F.2d 1572, 1576 (Fed. Cir. 1989); GRK Can., Ltd. v. United States, 761 F.3d 1354, 1357 (Fed. Cir. 2014). The technical reference “Data Processing and Information Technology,”<sup>14</sup> and EN 84.71 denote that “data processing” involves the collection and manipulation of data for a specific purpose. In addition, Merriam-Webster’s Dictionary defines “data processing” as “the converting of raw data to machine-readable form and its subsequent processing (such as storing, updating, rearranging, or printing out) by a computer.”<sup>15</sup> Moreover, the Encyclopedia Britannica states that “data processing” consists of:

The manipulation of data by a computer. It includes the conversion of raw data to machine-readable form, flow of data through the CPU and memory to output devices, and formatting or transformation of output. Any use of computers to perform defined operations on data can be included under data processing.<sup>16</sup>

In the present case, the Antminer S9 does not collect, convert, manipulate, or store data, nor handle information in pre-established logical sequences. Instead, the Antminer S9 is designed, marketed, and sold for the specific purpose of generating hash numbers until the cryptographic number is solved. The function of generating numbers is a very specific function and is not a data processing function. As such, the

<sup>14</sup> French, Carl (1996). Data Processing and information Technology (10<sup>th</sup> ed.). Thomson. p.2. ISBN 1844801004 (stating that “data processing” is the “collection and manipulation of items of data to produce meaningful information.”).

<sup>15</sup> <https://www.merriam-webster.com/dictionary/data%20processing> (last visited May 20, 2019).

<sup>16</sup> <https://www.britannica.com/technology/data-processing> (last visited May 20, 2019).

Antminer S9 is excluded from subheading 8471.80, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS.

CBP has precluded a wide variety of merchandise from being classified as units of ADP machines when they fail to meet Note 5(C)(i) to Chapter 84, HTSUS, and are excluded by application of Note 5(E) to Chapter 84, HTSUS. See, e.g., HQ H082637, dated January 5, 2010 (precluding non-medical brain-computer interface devices that were not used with ADP machines and performed a function other than data processing from being classified as units of ADPs); HQ 966172, dated June 4, 2003 (precluding PC cameras from classification as units of ADP machines because they performed a function other than data processing).

The Protestant relies on HQ W968368, dated February 28, 2008 to support its contention that the Antminer S9 is not excluded by Note 5(E) to Chapter 84, HTSUS. In HQ W968368, CBP determined that control interface units that performed functions of audio and musical recording, editing, and real time-mixing and could not perform these functions without the assistance of an ADP machine were units of an ADP system. In addition, CBP noted that the control interface units were not performing a function other than data processing and therefore were not precluded from classification by Note 5(E) to Chapter 84, HTSUS. HQ W968368 is distinguishable because the devices at issue were clearly units of a kind solely or principally used with an ADP system. In the present case, the Antminer S9 functions autonomously and as stated previously, the function of hash calculating is not a recognized data processing function.

The Protestant also cites to a decision made by the Harmonized System Committee which issued a classification opinion on a cryptographic processor. See Classification Opinion 847180/1 (adopted 1998). The function of the cryptographic processor was described as providing the “necessary data security functions (e.g., authentication and encryption) which would otherwise have to be performed by software loaded onto the host [ADP] machine; this eliminates the need for storage of certain security data bases in the [ADP] machine(s)....” However, the function of the cryptographic processor is not the same of the subject Antminer S9 which is to solely perform hash calculations. Therefore, reliance on Classification Opinion 847180/1 is not applicable or persuasive.

Since the function of hash calculating is not a defined function within the tariff, and the subject Antminer S9 is electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for “[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]” EN 85.43 also provides that the “heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.” Furthermore and as stated above, the Antminer S9 performs the function of hash calculations independently and apart from other machines. Therefore, the Antminer S9 is classified in heading 8543, HTSUS.

Our decision is consistent with NY N297495, dated June 8, 2018. In NY N297495, CBP classified two cryptocurrency mining machines, including the subject Antminer S9, in heading 8543, HTSUS. CBP reasoned that the cryptocurrency machines were not ADP machines of heading 8471, HTSUS, because they were not freely programmable. In addition, CBP held that the cryptocurrency machines were also not units of an ADP machine, because an ADP machine was only used to configure the machines and once configured, the machines were nearly autonomous once their target currency was programmed onto the control board. Finally, CBP found that the process of mining cryptocurrency was not recognized as a data processing function and therefore, were excluded from heading 8471, HTSUS by application of Note 5(E) to Chapter 84.

**HOLDING:**

By application of GRI 1, the Antminer S9, is classified in heading 8543. By application of GRI 6, the Antminer S9 is classified in subheading 8543.70.99 of the 2018, HTSUS, which provides for "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other." The 2018 general column one, rate of duty is 2.6% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

You are instructed to DENY the Protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300063

December 11, 2019

**CLA-2 OT:RR:CTF:EMAIN H300063 PF**

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Port Director  
U.S. Customs and Border Protection  
John F. Kennedy International Airport  
Building 77, 2nd Floor  
Jamaica, NY 11430

Attn: Gregory Dailey, Import Specialist

**Re:** Protest and Application for Further Review No: 4701-2018-100232; Classification of a Bitmain Antminer S9 Bitcoin Miner

Dear Port Director:

The following is our decision as to Protest and Application for Further Review No. 4701-2018-100232, which was filed on June 20, 2018 on behalf of North Country Data Center Corporation (“Protestant”). The protest pertains to the classification of a Bitmain Antminer S9 Bitcoin Miner (“Antminer S9”) under the Harmonized Tariff Schedule of the United States (“HTSUS”).

The subject merchandise was entered by protestant on July 24, 2017 at the John F. Kennedy International Airport. On January 5, 2018, CBP liquidated the entry under subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.”

On June 20, 2018, protestant filed a protest and AFR regarding the tariff classification of the subject merchandise and claiming that the correct classification of the subject merchandise should be in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing

one or two of the following types of unit: storage units, input units, output units.” In the alternative, protestant maintains that the subject merchandise should be classified in subheading 8471.80.90, HTSUS, which provides for Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Other units of automatic data processing machines: Other: Other.”

Our decision takes into account the arguments presented during a February 27, 2019 meeting and supplemental submissions received on March 14, 2019 and April 26, 2019.

## FACTS:

The subject Antminer S9 is a machine used in mining various types of cryptocurrency. Cryptocurrency is defined as a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.<sup>1</sup> Individuals who possess cryptocurrency, such as Bitcoin, and seek to conduct a financial transaction rely on the network of “miners” to validate their transactions through mining.

The act of “mining cryptocurrency” is the process of updating a ledger of cryptocurrency transactions known as the blockchain. The blockchain is a series of blocks and a block is a collection of cryptocurrency transactions.<sup>2</sup> Mining is done by application specific integrated circuit (“ASIC”) miners, such as the subject Antminer S9, which compete against other cryptominers in an attempt to guess a specific number that is associated with a block containing transaction data. The first cryptominer to guess the correct number is rewarded by being able to authorize the transaction, update the blockchain, and receive a fraction of cryptocurrency.

The Antminer S9 consists of an aluminum enclosure, two cooling fans, a controller printed circuit board assembly (“PCBA”), three separate PCBAs that are commonly referred to as hashboards, and 189 ASIC chips. The Antminer S9 requires at least one separate external power supply unit (“PSU”) that is attached to the hashboards and controller board, but may use up to three PSUs, one for each hashboard, depending on the capabilities of the PSUs employed. Once power is supplied to the Antminer S9 and the unit is connected to a dynamic host configuration protocol (“DHCP”) network, the Antminer S9 will obtain an IP address automatically from a DHCP server. In order to verify the IP address, a user will download the Antminer S9’s software on an automatic data processing (“ADP”) machine, click on the IP Report button on the controller board, and view the IP address in a window on a computer screen.<sup>3</sup> A user will subsequently open a browser, enter the IP address and a

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<sup>1</sup> See <https://en.oxforddictionaries.com/definition/cryptocurrency> (last visited May 20, 2019).

<sup>2</sup> See Joseph W. Guzzetta, How Bitcoin Works-A Technological Description of Blockchain-Based Cryptocurrencies for Nontechnical Lawyers, The Computer & Internet Lawyer, Vol. 35, No. 3 (2018).

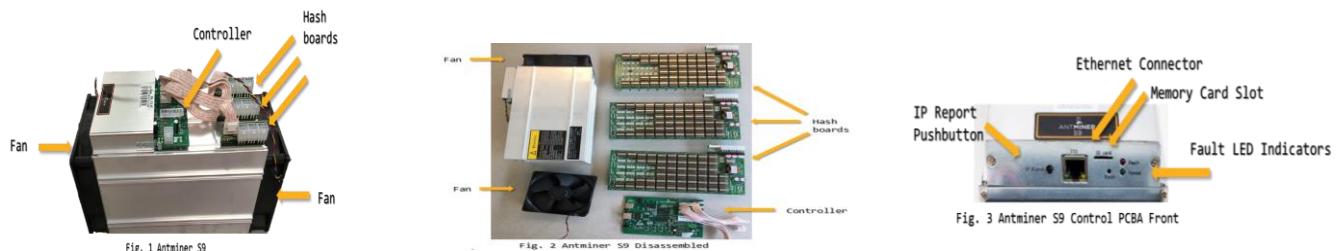
<sup>3</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

username and password, and configure the Antminer S9. Once configured, the Antminer S9 receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with the mining pool. Neither the power supply nor the ADP machine are imported with the Antminer S9.

The controller boards contain a single Ethernet RJ45 connection, a reset button, status LED indicator(s), and a memory card slot. The memory card is used to update the controller's firmware or hardware recovery. Each hashboard is populated with numerous ASICs and heat sinks on both sides. The hashboards slide into the aluminum enclosure and are connected to the control board through a ribbon cable on the data connector. There is no "motherboard" or backplane slot that connects the hashboards to the controller, they merely rest vertically in a channel inside the enclosure.

The Antminer S9 has minimal onboard flash memory and otherwise does not include a storage medium. There is no method for connecting a storage unit like a solid state drive or hard disk drive. A user cannot install, modify or remove program applications on the Antminer S9. The Antminer S9 also does not have a graphics interface, USB or similar control interface, a Bluetooth interface, audio input/output or a power supply. The Antminer S9 does not allow for general purpose computing tasks nor is it capable of displaying graphics. The Antminer S9 is programmed through firmware updates held on the memory card and configured and initialized through a network/Ethernet connected ADP machine. Mining functions are measured in "hash" calculations and are depicted as MH, GH, or TH.<sup>4</sup>

Pictures of the Antminer S9 are provided below:




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<sup>4</sup> A hash rate is the speed at which a given mining machine performs complex computations to find blocks. The mining machine has to make thousands or even millions of guesses per second to find the right answers to solve the block. MH refers to "megahash," or a million hash calculations per second, GH refers to "gigahash," or a billion hash calculations per second, and TH refers to "terrahash" or a trillion guesses per second.

**ISSUE:**

Whether the Antminer S9 is classified as a processing unit of heading 8471, HTSUS, as a unit of an ADP machine of heading 8471, HTSUS, or as an electrical machine and apparatus, having individual functions, not specified or included elsewhere in Chapter 85, of heading 8543, HTSUS.

**LAW AND ANALYSIS:**

Initially, we note that the matters protested are protestable under 19 U.S.C. §1514(a) (2) as decisions on classification. The protest was timely filed, within 180 days of liquidation of the first entry. (Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006)). Further Review of Protests No. 3004-17-100339 is properly accorded to Protestant pursuant to 19 C.F.R. § 174.24(b) because the decision against which the protest was filed is alleged to involve questions of law or fact, which have not been ruled upon by the Commissioner of Customs or his designee, or by the courts.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The 2018 HTSUS headings under consideration are as follows:

- |                   |  |
|-------------------|--|
| <b>8471</b>       | Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included.... |
| <b>8471.50.01</b> | Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units....                      |
| <b>8471.80</b>    | Other units of automatic data processing machines:<br><br>Other:   |
| <b>8471.80.90</b> | Other.   |

**8543** Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof....

8543.70 Other machines and apparatus:

Other:

Other:

8543.70.99 Other.

Additional U.S. Rules of Interpretation 1 (AUSR1), HTSUS, provides, in part:

In the absence of special language or context which otherwise requires:

- (a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use[.]

ADP machines are defined in Legal Note 5(A) to Chapter 84, HTSUS, which provide as follows:

For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:

- (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
- (ii) Being freely programmed in accordance with the requirements of the user;
- (iii) Performing arithmetical computations specified by the user; and
- (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.

To be classified as an ADP unit under heading 8471, HTSUS, an article must meet the terms of Legal Note 5(C) to Chapter 84, HTSUS, which provides that:

Subject to paragraphs (D) and (E) below, a unit is to be regarded as being a part of an automatic data processing system if it meets all the following conditions:

- (i) It is of a kind solely or principally used in an automatic data processing system;

- (ii) It is connectable to the central processing unit [CPU] either directly or through one or more other units; and
- (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

Separately presented units of an automatic data processing machine are to be classified in heading 8471....

In understanding the language of the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System, which constitute the official interpretation of the HTSUS at the international level, may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).

The ENs to heading 8471 provide, in pertinent part:

#### **(I) AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF**

Data processing is the handling of information of all kinds, in pre-established logical sequences and for a specific purpose or purposes.

Automatic data processing machines are machines which, by logically interrelated operations performed in accordance with pre-established instructions (program), furnish data which can be used as such, or, in some cases, serve in turn as data for other data processing operations.

This heading covers data processing machines in which the logical sequences of the operations can be changed from one job to another, and in which the operation can be automatic, that is to say with no manual intervention for the duration of the task....

However, the heading **excludes** machines, instruments or apparatus incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines, instruments or apparatus are classified in the headings appropriate to their respective functions or, failing that, in residual headings (See Part (E) of the General Explanatory Note to this Chapter).

#### **(A) AUTOMATIC DATA PROCESSING MACHINES**

The automatic data processing machines of this heading must be capable of fulfilling **simultaneously** the conditions laid down in Note 5(A) to this Chapter.  
[...]

Thus, machines which operate only on fixed programs, i.e., programs which cannot be modified by the user, are **excluded** even though the user may be able to choose from a number of such fixed programs.

These machines have storage capability and also stored programs which can be changed from job to job....

### (B) SEPARATELY PRESENTED UNITS

....Constituent units are those defined in Part (A) above and in the following paragraphs, as being parts of a complete system.

An apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- (a) Performs a data processing function;
- (b) Meets the following criteria set out in Note 5 (C) to this Chapter:
  - (i) It is of a kind solely or principally used in an automatic data processing system;
  - (ii) It is connectable to the central processing unit either directly or through one or more other units; and
  - (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter....

The EN to heading 8543, HTSUS, provides in pertinent part:

This heading covers all electrical appliances and apparatus, **not falling** in any other heading of this Chapter, **nor covered more specifically** by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.

The electrical appliances and apparatus of this heading must have individual functions. The introductory provisions of Explanatory Note to heading 84.79 concerning machines and mechanical appliances having individual functions apply, *mutatis mutandis*, to the appliances and apparatus of this heading.

The EN to heading 8479, HTSUS, provides, in relevant part:

For this purpose the following are to be regarded as having "individual functions":

- (A) Mechanical devices, with or without motors or other driving force, whose function can be performed distinctly from and independently of any other machine or appliance.

The Antminer S9 is capable of "storing the processing program or programs and at least the data immediately necessary for the execution of the program;" "performing

arithmetical computations specified by the user;" and "executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run." See Note 5(A)(i), (iii) and (iv) to Chapter 84, HTSUS. At issue in this case is whether the device is "capable of ... being freely programmed in accordance with the requirements of the user." See Note 5(A)(ii) to Chapter 84, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) ("Optrex"), the U.S. Court of Appeals for the Federal Circuit ("CAFC") upheld CBP's longstanding interpretation that a "freely programmable" ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. See also Headquarters Ruling Letter ("HQ") 964880, dated December 21, 2001. The Optrex court noted that "[CBP's] interpretation is supported by the World Customs Organization's Explanatory Notes [...] which provide that 'machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.' Explanatory Note 84.71(I)(A)." Id. at 1370. The court added that "[a]pplication programs are not 'fixed' because they can be installed or deleted from a machine." 427 F. Supp. 2d at 1197.

CBP has ruled that devices which enable the user to decide which applications to install or delete from the device are freely programmable. For example, in HQ 964880, supra, CBP examined the classification of the Palm VII and VIIx – personal digital assistants ("Palm PDAs") with Internet connectivity. Both models used Palm's 3.2.0 OS, a 16MHz microprocessor, and came with 2 MB of random access memory and 2 MB of read-only memory. They were imported with pre-installed applications (including a date book, an address book, a memo pad, and desk top e-mail connectivity software) and could accept additional applications that were available directly from Palm or from third-party vendors. In finding that the devices were freely programmable, CBP stressed the fact that they could be programmed in several ways: directly on the devices, with a host computer to generate a generic application, or with a host computer to generate a native application. CBP also noted that:

- (a) the Palm [OS] is an open operating system; programming tools are readily available to any user either directly from Palm or from other commercial sources;
- (b) programming tools are readily available to any user either directly from Palm or from other commercial sources; [and]
- (c) hundreds of software applications are currently available for the Palm OS through a variety of vendors who distribute them either as freeware, shareware, or commercial applications ...

CBP classified the PDAs in subheading 8471.30.00, HTSUS, as portable ADP machines.

Conversely, in HQ H026665, dated July 9, 2008, CBP ruled that the AIDA System Compact II, a machine used in hospitals to archive images, video and audio files associated with patient information onto a database, was not freely programmable because users were not free to add or remove software from the device. There, CBP noted, first, that the importer could not provide "... an affirmative representation that the hardware and software are installed into the AIDA without any proprietary restrictions or blocks" and second, that "the software installation manual and license prohibited the downloading of additional software and also identified such action as an impediment to the operation of the device."

Similarly, in HQ 964682, dated July 15, 2002, we determined that the Sony PlayStation2 ("PS2"), a video game console, was not freely programmable because:

[p]roprietary blocks in the PS2 prevent the console from running any commercially available Linux OS and only specially designed Sony disks can be read by the system. If a non-PS2 compatible disc is inserted in the console, the hardware layer (with the firmware) determines that the disc does not contain one of the accepted formats and thus does not acknowledge it as accepted media.

Significantly, we noted that to run additional Linux-based programs on the PS2, the user was required to install Sony's version of the Linux OS, which was not included with the console. Moreover, in HQ 952862, dated November 1, 1994, CBP determined that Teklogix data collection devices were not freely programmable, in part, because they were not "general purpose" machines and were designed for certain specific applications and could not by themselves perform the typical applications of computers or personal computers. HQ 952862 discussed the concept of freely programmable by examining the definitions of computer and personal computer and stated as follows:

"In determining whether a particular machine is "freely programmable," it is helpful to examine the definitions of the terms "computer" and "personal computer." A computer, which is freely programmable, is a "[g]eneral-purpose machine that processes data according to a set of instructions that are stored internally either temporarily or permanently." A. Freedman, *The Computer Glossary*, Sixth Edition, pg. 95 (1993). A personal computer "is functionally similar to larger computers, but serves only one user. It is used at home and in the office for almost all applications traditionally performed on larger computers." *Computer Glossary* (1993), pg. 400. Personal Computers "are typically used for applications, such as word processing, spreadsheets, database management and various graphics-based programs, such as computer-aided design (CAD) and desktop publishing. They are also used to handle traditional business applications, such as invoicing, payroll and general ledger. At home, personal computers are primarily used for games, education and word processing." A. Freedman, *The Computer Glossary*, Fourth Edition, pg. 524 (1989). Because they can perform any of the above-listed applications, personal computers are considered to be "freely programmable."

Applying Optrex and CBP's administrative precedent, we conclude that the

Antminer S9 is not a freely programmable ADP machine. The Antminer S9 is comprised of 189 ASIC chips. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin mining algorithm.<sup>5</sup> The Antminer S9 is designed and developed hardware right down to the chip level. In this case, the Antminer S9 is specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on an Antminer S9. Unlike the Palm PDAs in HQ 964880, the Antminer S9's architecture is not based on an open system design.

In addition, a user cannot install, modify or remove program applications on the Antminer S9. For example, the Antminer S9 cannot receive third-party applications, such as a word processing program or a virus protection program. EN 84.71(I)(A) provides that machines which operate only on fixed programs that cannot be modified by the user are excluded from heading 8471, HTSUS, even when the user may be able to choose from a number of such fixed programs. In this case, the Antminer S9 operates on fixed programs and does not accept the installation or removal of applications at will.

The protestant alleges that the Antminer S9 runs on a Linux operating system. However, a user cannot load an operating system, such as the Linux, onto the Antminer S9. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Antminer S9 itself. Therefore, the Antminer S9 does not have a functional operating system with which to perform additional tasks. The programming installed onto the Antminer S9 is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The protestant also contends that the Antminer S9 can run on a Braiins “operating system,” (“OS”).<sup>6</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. The Braiins is described as being “mostly on par with vendor firmware . . . [i]t monitors the hardware and working conditions, handles errors and provides various performance data.”<sup>7</sup> Moreover, the Braiins is referred to as the “very first fully open-source, Linux based system for cryptocurrency embedded devices” and attempts to develop a firmware to allow users of the Antminer S9 to benefit from power

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<sup>5</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that “ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.”).

<sup>6</sup> See <https://braiins-os.org/> (last visited May 20, 2019) and <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>7</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019); see also [https://medium.com/@braiins\\_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76](https://medium.com/@braiins_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76) (last visited May 20, 2019) (noting that the “most wanted feature being the S9 automatic per-chip frequency calibration mechanism” which achieves “optimum performance.”).

savings and performance improvements.<sup>8</sup> As a result, the Braiins is marketed to improve power saving and performance on miners, including the Antminer S9. The Braiins is not marketed nor does it purport to contain additional features or functions, such as the installation of third-party programs.<sup>9</sup>

Moreover, while the protestant maintains that the Braiins can be installed directly onto the Antminer S9, a quick-start guide to Braiins highly recommends installing the firmware on the SD card of a mining machine versus installing on the mining machine itself. The Braiins website further explains that if a user encounters any issues, it can “simply boot the stock firmware from the internal memory. This is a safe way we suggest to start with.”<sup>10</sup> Notably, in HQ 964682, we determined that a PS2 was not freely programmable where an installed version of an OS had to be booted through a DVD-ROM drive and these programs could only be read from an external disc drive on the Internet connected to the PS2.

Protestant further maintains that Braiins can run multiple applications on its OS, which in turns makes the Antminer S9 freely programmable and provided a list of “applications” that purportedly run on the Braiins. However, we could not find support for the protestant’s claim that the Braiins accepts the installation of additional software nor that the installation of additional software on the Braiins would not act as an impediment to the operation of the Antminer S9. Since the processors on the Antminer S9 are specialized toward mining cryptocurrency, the Antminer S9 would likely run any other program very poorly, if at all.

Indeed, the manufacturer of the Antminer S9, Bitmain, does not warrant preloaded firmware on its products nor does it warrant that the operation of upgraded firmware will be error free.<sup>11</sup> Bitmain also does not warrant “unauthorized alterations done to the hardware and firmware by any third party.” As a result, if the Braiins caused an error on the Antminer S9, the manufacturer, Bitmain would likely void the Antminer S9’s warranty. Based on these facts, we do not find that the Antminer S9 is freely programmable.

The Antminer S9 is simply not a general purpose machine because it cannot perform general purpose computing tasks. The Antminer S9 does not have input ability for a keyboard or mouse nor does it have output ability for a printer. The Antminer S9 has no word processing functions, nor can it perform calendar, music, or game applications. The Antminer is not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Its functions as imported, are limited to performing hash calculations. These limitations preclude the use of the

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<sup>8</sup> <https://braiins-os.org> (last visited May 20, 2019).

<sup>9</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019) (noting that the Braiins is still in a testing phase and recommends that its software not to be use don whole mining farms).

<sup>10</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>11</sup> See <https://service.bitmain.com/support/terms> (last visited May 20, 2019).

Antminer S9 for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

We also note that EN 84.71(I)(A) requires that ADP machines have “storage capability and also stored programs which can be changed from job to job.” The Antminer S9 has minimal onboard flash memory that is used merely to configure the machine for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Antminer S9 also does not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive. As a result, the Antminer S9 does not have sufficient memory to store and execute standard applications, unlike the Palm PDAs in HQ 964880.

The protestant relies on New York Ruling (“NY”) N285104, dated April 24, 2017, where CBP classified a credit-card sized, single board, fully functional personal computer (“Raspberry Pi”) in heading 8471, HTSUS and found that the machine was freely programmable. The Raspberry Pi was capable of using multiple types of operating systems and had numerous applications that were available for download onto the device. The Raspberry Pi was noted to work as a miniature personal computer that could perform tasks solely based on the needs of the user. There were also no hardware or software blocks preventing an end user from downloading and executing installed programs or off-the shelf software applications or performing tasks traditionally achieved by a typical laptop or personal computer. Unlike the Raspberry Pi, the Antminer S9 is not an open source device. In addition, the Antminer S9 is restricted to one function, which is mining, and is not capable of using multiple types of operating systems nor can it receive or download installed programs or off-the shelf software applications. The Antminer S9 also does not perform tasks traditionally performed by a laptop or personal computer. Therefore, NY N285104 is not applicable.

For the foregoing reasons, we find that the Antminer S9 is not “freely programmable” as required by Note 5(A)(ii) to Chapter 84, HTSUS. Therefore, the Antminer S9 does not meet the requirements of Note 5(A) to Chapter 84, HTSUS, and it is not an ADP machine of heading 8471.50, HTSUS.

In the alternative, the protestant maintains that the Antminer S9 is a unit of an ADP machine, and is classified in subheading 8471.80.90, HTSUS. In order to be a unit of an ADP machine, we must consider the requirements for units of ADP machines that are set forth in Note 5(C) to Chapter 84. While the Antminer S9 indirectly connects to a CPU via a network, it is not of a kind that is solely or principally used in an ADP system. See Note 5(C)(i) to Chapter 84 and BenQ Am. Corp. v. United States, 646 F.3d 1371, 1379-81 (Fed. Cir. 2011).

For articles governed by principal use, Additional U.S. Rule of Interpretation 1(a), HTSUS, provides that, in the absence of special language or context which otherwise requires, such use “is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use.” In other

words, the article's principal use at the time of importation determines whether it is classifiable within a particular class or kind of merchandise. See BenQ, 646 F.3d at 1379-1380.

While Additional U.S. Rule of Interpretation 1(a), HTSUS, provides general criteria for discerning the principal use of an article, it does not provide specific criteria for individual tariff provisions. However, the courts have provided factors which are indicative but not conclusive, to apply when determining whether merchandise falls within a particular class or kind. They include: general physical characteristics, the expectation of the ultimate purchaser, channels of trade, environment of sale (accompanying accessories, manner of advertisement and display), use in the same manner as merchandise which defines the class, economic practicality of so using the import, and recognition in the trade of this use. See United States v. Carborundum Co., 63 C.C.P.A 98, 102, 536 F. 2d 373, 377 (1976), cert. denied, 429 U.S. 979. CBP has applied this principle in subsequent rulings. See, e.g., HQ 082780, dated December 18, 1989. This principle has been carried over to the HTSUS, as courts have determined that principal use under the HTSUS is defined as the use which "exceeds all other uses." See Lenox Collections v. United States, 20 C.I.T. 194, 196 (1996).

There is no dispute that the Antminer S9 receives its configuration and initialization instructions from an ADP system via a network connection. However, once the Antminer S9 is configured, it receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with a mining pool after it is configured and initialized. The Antminer S9 performs the hash calculations autonomously and, as a result, the Antminer S9 is dedicated to a particular function that does not rise to the level of "solely or principally used in an [ADP] system."

In addition, an installation guide for the Antminer S9 provides instructions on how to configure, monitor, and administer the machine using an ADP system, but does not indicate that an ADP system is needed to perform the principal function of hash calculations.<sup>12</sup> A website that reviews the Antminer S9 also describes this machine as a "self-contained unit" and provides that:

The S9 is a self-contained unit, excluding the power supply. No connection is needed to another computer to interface with other Bitcoin nodes. Its onboard web management portal allows for a simplified setup and maintenance process.<sup>13</sup>

While an ADP system is used to set-up and configure the Antminer S9, the Antminer's controller board and individual hashboards perform the principal function of the machine, which is to perform hash calculations. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of

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<sup>12</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

<sup>13</sup> See <https://www.bitcoinmining.com/bitmain-antminer-s9-review-bitcoin-mining/> (last visited May 20, 2019).

these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining. This function is performed without the assistance of an ADP system, which only serves as an interface to the Antminer S9. Based on the Carborundum factors and the information above, we find that the principal use of the subject Antminer S9 is not as a unit of an ADP machine, and that Note 5(C)(i) to Chapter 84, HTSUS, is not satisfied.

Assuming arguendo that the subject merchandise satisfies the requirements of Note 5(C)(i) through 5(C)(iii), supra, we note that Note 5(C) is still subject to Note 5(E) to Chapter 84. In this respect, we find that the Antminer is excluded from heading 8471, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS. Note 5(E) provides that:

Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective function or, failing that, in residual headings.

The term “data processing” is not defined in the HTSUS. As such, it must be construed in accordance with its common meaning, which may be ascertained by reference to “dictionaries, scientific authorities, other reliable information sources,” “lexicographic and other materials” and to the pertinent ENs. C.J. Tower & Sons v. United States, 69 C.C.P.A. 128, 673 F.2d 1268, 1271 (1982); Simod America Corp. v. United States, 872 F.2d 1572, 1576 (Fed. Cir. 1989); GRK Can., Ltd. v. United States, 761 F.3d 1354, 1357 (Fed. Cir. 2014). The technical reference “Data Processing and Information Technology,”<sup>14</sup> and EN 84.71 denote that “data processing” involves the collection and manipulation of data for a specific purpose. In addition, Merriam-Webster’s Dictionary defines “data processing” as “the converting of raw data to machine-readable form and its subsequent processing (such as storing, updating, rearranging, or printing out) by a computer.”<sup>15</sup> Moreover, the Encyclopedia Britannica states that “data processing” consists of:

The manipulation of data by a computer. It includes the conversion of raw data to machine-readable form, flow of data through the CPU and memory to output devices, and formatting or transformation of output. Any use of computers to perform defined operations on data can be included under data processing.<sup>16</sup>

In the present case, the Antminer S9 does not collect, convert, manipulate, or store data, nor handle information in pre-established logical sequences. Instead, the Antminer S9 is designed, marketed, and sold for the specific purpose of generating hash numbers until the cryptographic number is solved. The function of generating numbers is a very specific function and is not a data processing function. As such, the

<sup>14</sup> French, Carl (1996). Data Processing and information Technology (10<sup>th</sup> ed.). Thomson. p.2. ISBN 1844801004 (stating that “data processing” is the “collection and manipulation of items of data to produce meaningful information.”).

<sup>15</sup> <https://www.merriam-webster.com/dictionary/data%20processing> (last visited May 20, 2019).

<sup>16</sup> <https://www.britannica.com/technology/data-processing> (last visited May 20, 2019).

Antminer S9 is excluded from subheading 8471.80, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS.

CBP has precluded a wide variety of merchandise from being classified as units of ADP machines when they fail to meet Note 5(C)(i) to Chapter 84, HTSUS, and are excluded by application of Note 5(E) to Chapter 84, HTSUS. See, e.g., HQ H082637, dated January 5, 2010 (precluding non-medical brain-computer interface devices that were not used with ADP machines and performed a function other than data processing from being classified as units of ADPs); HQ 966172, dated June 4, 2003 (precluding PC cameras from classification as units of ADP machines because they performed a function other than data processing).

The Protestant relies on HQ W968368, dated February 28, 2008 to support its contention that the Antminer S9 is not excluded by Note 5(E) to Chapter 84, HTSUS. In HQ W968368, CBP determined that control interface units that performed functions of audio and musical recording, editing, and real time-mixing and could not perform these functions without the assistance of an ADP machine were units of an ADP system. In addition, CBP noted that the control interface units were not performing a function other than data processing and therefore were not precluded from classification by Note 5(E) to Chapter 84, HTSUS. HQ W968368 is distinguishable because the devices at issue were clearly units of a kind solely or principally used with an ADP system. In the present case, the Antminer S9 functions autonomously and as stated previously, the function of hash calculating is not a recognized data processing function.

The Protestant also cites to a decision made by the Harmonized System Committee which issued a classification opinion on a cryptographic processor. See Classification Opinion 847180/1 (adopted 1998). The function of the cryptographic processor was described as providing the “necessary data security functions (e.g., authentication and encryption) which would otherwise have to be performed by software loaded onto the host [ADP] machine; this eliminates the need for storage of certain security data bases in the [ADP] machine(s)....” However, the function of the cryptographic processor is not the same of the subject Antminer S9 which is to solely perform hash calculations. Therefore, reliance on Classification Opinion 847180/1 is not applicable or persuasive.

Since the function of hash calculating is not a defined function within the tariff, and the subject Antminer S9 is electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for “[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]” EN 85.43 also provides that the “heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.” Furthermore and as stated above, the Antminer S9 performs the function of hash calculations independently and apart from other machines. Therefore, the Antminer S9 is classified in heading 8543, HTSUS.

Our decision is consistent with NY N297495, dated June 8, 2018. In NY N297495, CBP classified two cryptocurrency mining machines, including the subject Antminer S9, in heading 8543, HTSUS. CBP reasoned that the cryptocurrency machines were not ADP machines of heading 8471, HTSUS, because they were not freely programmable. In addition, CBP held that the cryptocurrency machines were also not units of an ADP machine, because an ADP machine was only used to configure the machines and once configured, the machines were nearly autonomous once their target currency was programmed onto the control board. Finally, CBP found that the process of mining cryptocurrency was not recognized as a data processing function and therefore, were excluded from heading 8471, HTSUS by application of Note 5(E) to Chapter 84.

**HOLDING:**

By application of GRI 1, the Antminer S9, is classified in heading 8543. By application of GRI 6, the Antminer S9 is classified in subheading 8543.70.99 of the 2018, HTSUS, which provides for "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other." The 2018 general column one, rate of duty is 2.6% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

You are instructed to DENY the Protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300063

December 11, 2019

**CLA-2 OT:RR:CTF:EMAIN H300063 PF**

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Port Director  
U.S. Customs and Border Protection  
John F. Kennedy International Airport  
Building 77, 2nd Floor  
Jamaica, NY 11430

Attn: Gregory Dailey, Import Specialist

**Re:** Protest and Application for Further Review No: 4701-2018-100232; Classification of a Bitmain Antminer S9 Bitcoin Miner

Dear Port Director:

The following is our decision as to Protest and Application for Further Review No. 4701-2018-100232, which was filed on June 20, 2018 on behalf of North Country Data Center Corporation (“Protestant”). The protest pertains to the classification of a Bitmain Antminer S9 Bitcoin Miner (“Antminer S9”) under the Harmonized Tariff Schedule of the United States (“HTSUS”).

The subject merchandise was entered by protestant on July 24, 2017 at the John F. Kennedy International Airport. On January 5, 2018, CBP liquidated the entry under subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.”

On June 20, 2018, protestant filed a protest and AFR regarding the tariff classification of the subject merchandise and claiming that the correct classification of the subject merchandise should be in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing

one or two of the following types of unit: storage units, input units, output units.” In the alternative, protestant maintains that the subject merchandise should be classified in subheading 8471.80.90, HTSUS, which provides for Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Other units of automatic data processing machines: Other: Other.”

Our decision takes into account the arguments presented during a February 27, 2019 meeting and supplemental submissions received on March 14, 2019 and April 26, 2019.

## FACTS:

The subject Antminer S9 is a machine used in mining various types of cryptocurrency. Cryptocurrency is defined as a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.<sup>1</sup> Individuals who possess cryptocurrency, such as Bitcoin, and seek to conduct a financial transaction rely on the network of “miners” to validate their transactions through mining.

The act of “mining cryptocurrency” is the process of updating a ledger of cryptocurrency transactions known as the blockchain. The blockchain is a series of blocks and a block is a collection of cryptocurrency transactions.<sup>2</sup> Mining is done by application specific integrated circuit (“ASIC”) miners, such as the subject Antminer S9, which compete against other cryptominers in an attempt to guess a specific number that is associated with a block containing transaction data. The first cryptominer to guess the correct number is rewarded by being able to authorize the transaction, update the blockchain, and receive a fraction of cryptocurrency.

The Antminer S9 consists of an aluminum enclosure, two cooling fans, a controller printed circuit board assembly (“PCBA”), three separate PCBAs that are commonly referred to as hashboards, and 189 ASIC chips. The Antminer S9 requires at least one separate external power supply unit (“PSU”) that is attached to the hashboards and controller board, but may use up to three PSUs, one for each hashboard, depending on the capabilities of the PSUs employed. Once power is supplied to the Antminer S9 and the unit is connected to a dynamic host configuration protocol (“DHCP”) network, the Antminer S9 will obtain an IP address automatically from a DHCP server. In order to verify the IP address, a user will download the Antminer S9’s software on an automatic data processing (“ADP”) machine, click on the IP Report button on the controller board, and view the IP address in a window on a computer screen.<sup>3</sup> A user will subsequently open a browser, enter the IP address and a

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<sup>1</sup> See <https://en.oxforddictionaries.com/definition/cryptocurrency> (last visited May 20, 2019).

<sup>2</sup> See Joseph W. Guzzetta, How Bitcoin Works-A Technological Description of Blockchain-Based Cryptocurrencies for Nontechnical Lawyers, The Computer & Internet Lawyer, Vol. 35, No. 3 (2018).

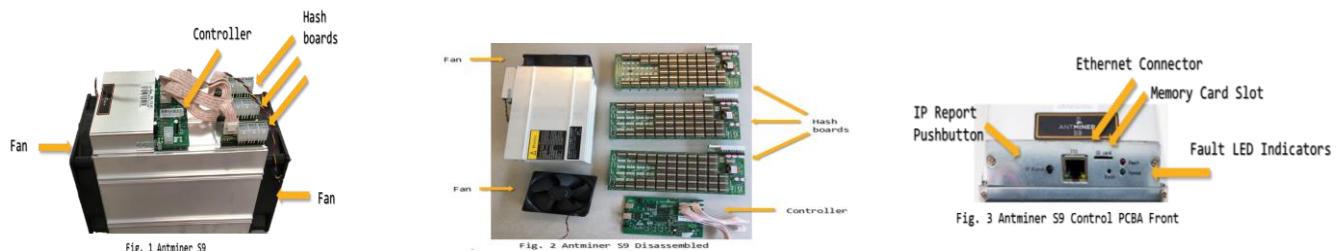
<sup>3</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

username and password, and configure the Antminer S9. Once configured, the Antminer S9 receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with the mining pool. Neither the power supply nor the ADP machine are imported with the Antminer S9.

The controller boards contain a single Ethernet RJ45 connection, a reset button, status LED indicator(s), and a memory card slot. The memory card is used to update the controller's firmware or hardware recovery. Each hashboard is populated with numerous ASICs and heat sinks on both sides. The hashboards slide into the aluminum enclosure and are connected to the control board through a ribbon cable on the data connector. There is no "motherboard" or backplane slot that connects the hashboards to the controller, they merely rest vertically in a channel inside the enclosure.

The Antminer S9 has minimal onboard flash memory and otherwise does not include a storage medium. There is no method for connecting a storage unit like a solid state drive or hard disk drive. A user cannot install, modify or remove program applications on the Antminer S9. The Antminer S9 also does not have a graphics interface, USB or similar control interface, a Bluetooth interface, audio input/output or a power supply. The Antminer S9 does not allow for general purpose computing tasks nor is it capable of displaying graphics. The Antminer S9 is programmed through firmware updates held on the memory card and configured and initialized through a network/Ethernet connected ADP machine. Mining functions are measured in "hash" calculations and are depicted as MH, GH, or TH.<sup>4</sup>

Pictures of the Antminer S9 are provided below:




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<sup>4</sup> A hash rate is the speed at which a given mining machine performs complex computations to find blocks. The mining machine has to make thousands or even millions of guesses per second to find the right answers to solve the block. MH refers to "megahash," or a million hash calculations per second, GH refers to "gigahash," or a billion hash calculations per second, and TH refers to "terrahash" or a trillion guesses per second.

**ISSUE:**

Whether the Antminer S9 is classified as a processing unit of heading 8471, HTSUS, as a unit of an ADP machine of heading 8471, HTSUS, or as an electrical machine and apparatus, having individual functions, not specified or included elsewhere in Chapter 85, of heading 8543, HTSUS.

**LAW AND ANALYSIS:**

Initially, we note that the matters protested are protestable under 19 U.S.C. §1514(a) (2) as decisions on classification. The protest was timely filed, within 180 days of liquidation of the first entry. (Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006)). Further Review of Protests No. 3004-17-100339 is properly accorded to Protestant pursuant to 19 C.F.R. § 174.24(b) because the decision against which the protest was filed is alleged to involve questions of law or fact, which have not been ruled upon by the Commissioner of Customs or his designee, or by the courts.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The 2018 HTSUS headings under consideration are as follows:

- |                   |  |
|-------------------|--|
| <b>8471</b>       | Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included.... |
| <b>8471.50.01</b> | Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units....                      |
| <b>8471.80</b>    | Other units of automatic data processing machines:<br><br>Other:   |
| <b>8471.80.90</b> | Other.   |

**8543** Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof....

8543.70 Other machines and apparatus:

Other:

Other:

8543.70.99 Other.

Additional U.S. Rules of Interpretation 1 (AUSR1), HTSUS, provides, in part:

In the absence of special language or context which otherwise requires:

- (a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use[.]

ADP machines are defined in Legal Note 5(A) to Chapter 84, HTSUS, which provide as follows:

For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:

- (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
- (ii) Being freely programmed in accordance with the requirements of the user;
- (iii) Performing arithmetical computations specified by the user; and
- (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.

To be classified as an ADP unit under heading 8471, HTSUS, an article must meet the terms of Legal Note 5(C) to Chapter 84, HTSUS, which provides that:

Subject to paragraphs (D) and (E) below, a unit is to be regarded as being a part of an automatic data processing system if it meets all the following conditions:

- (i) It is of a kind solely or principally used in an automatic data processing system;

- (ii) It is connectable to the central processing unit [CPU] either directly or through one or more other units; and
- (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

Separately presented units of an automatic data processing machine are to be classified in heading 8471....

In understanding the language of the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System, which constitute the official interpretation of the HTSUS at the international level, may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).

The ENs to heading 8471 provide, in pertinent part:

#### **(I) AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF**

Data processing is the handling of information of all kinds, in pre-established logical sequences and for a specific purpose or purposes.

Automatic data processing machines are machines which, by logically interrelated operations performed in accordance with pre-established instructions (program), furnish data which can be used as such, or, in some cases, serve in turn as data for other data processing operations.

This heading covers data processing machines in which the logical sequences of the operations can be changed from one job to another, and in which the operation can be automatic, that is to say with no manual intervention for the duration of the task....

However, the heading **excludes** machines, instruments or apparatus incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines, instruments or apparatus are classified in the headings appropriate to their respective functions or, failing that, in residual headings (See Part (E) of the General Explanatory Note to this Chapter).

#### **(A) AUTOMATIC DATA PROCESSING MACHINES**

The automatic data processing machines of this heading must be capable of fulfilling **simultaneously** the conditions laid down in Note 5(A) to this Chapter.  
[...]

Thus, machines which operate only on fixed programs, i.e., programs which cannot be modified by the user, are **excluded** even though the user may be able to choose from a number of such fixed programs.

These machines have storage capability and also stored programs which can be changed from job to job....

### (B) SEPARATELY PRESENTED UNITS

....Constituent units are those defined in Part (A) above and in the following paragraphs, as being parts of a complete system.

An apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- (a) Performs a data processing function;
- (b) Meets the following criteria set out in Note 5 (C) to this Chapter:
  - (i) It is of a kind solely or principally used in an automatic data processing system;
  - (ii) It is connectable to the central processing unit either directly or through one or more other units; and
  - (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter....

The EN to heading 8543, HTSUS, provides in pertinent part:

This heading covers all electrical appliances and apparatus, **not falling** in any other heading of this Chapter, **nor covered more specifically** by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.

The electrical appliances and apparatus of this heading must have individual functions. The introductory provisions of Explanatory Note to heading 84.79 concerning machines and mechanical appliances having individual functions apply, *mutatis mutandis*, to the appliances and apparatus of this heading.

The EN to heading 8479, HTSUS, provides, in relevant part:

For this purpose the following are to be regarded as having "individual functions":

- (A) Mechanical devices, with or without motors or other driving force, whose function can be performed distinctly from and independently of any other machine or appliance.

The Antminer S9 is capable of "storing the processing program or programs and at least the data immediately necessary for the execution of the program;" "performing

arithmetical computations specified by the user;" and "executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run." See Note 5(A)(i), (iii) and (iv) to Chapter 84, HTSUS. At issue in this case is whether the device is "capable of ... being freely programmed in accordance with the requirements of the user." See Note 5(A)(ii) to Chapter 84, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) ("Optrex"), the U.S. Court of Appeals for the Federal Circuit ("CAFC") upheld CBP's longstanding interpretation that a "freely programmable" ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. See also Headquarters Ruling Letter ("HQ") 964880, dated December 21, 2001. The Optrex court noted that "[CBP's] interpretation is supported by the World Customs Organization's Explanatory Notes [...] which provide that 'machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.' Explanatory Note 84.71(I)(A)." Id. at 1370. The court added that "[a]pplication programs are not 'fixed' because they can be installed or deleted from a machine." 427 F. Supp. 2d at 1197.

CBP has ruled that devices which enable the user to decide which applications to install or delete from the device are freely programmable. For example, in HQ 964880, supra, CBP examined the classification of the Palm VII and VIIx – personal digital assistants ("Palm PDAs") with Internet connectivity. Both models used Palm's 3.2.0 OS, a 16MHz microprocessor, and came with 2 MB of random access memory and 2 MB of read-only memory. They were imported with pre-installed applications (including a date book, an address book, a memo pad, and desk top e-mail connectivity software) and could accept additional applications that were available directly from Palm or from third-party vendors. In finding that the devices were freely programmable, CBP stressed the fact that they could be programmed in several ways: directly on the devices, with a host computer to generate a generic application, or with a host computer to generate a native application. CBP also noted that:

- (a) the Palm [OS] is an open operating system; programming tools are readily available to any user either directly from Palm or from other commercial sources;
- (b) programming tools are readily available to any user either directly from Palm or from other commercial sources; [and]
- (c) hundreds of software applications are currently available for the Palm OS through a variety of vendors who distribute them either as freeware, shareware, or commercial applications ...

CBP classified the PDAs in subheading 8471.30.00, HTSUS, as portable ADP machines.

Conversely, in HQ H026665, dated July 9, 2008, CBP ruled that the AIDA System Compact II, a machine used in hospitals to archive images, video and audio files associated with patient information onto a database, was not freely programmable because users were not free to add or remove software from the device. There, CBP noted, first, that the importer could not provide "... an affirmative representation that the hardware and software are installed into the AIDA without any proprietary restrictions or blocks" and second, that "the software installation manual and license prohibited the downloading of additional software and also identified such action as an impediment to the operation of the device."

Similarly, in HQ 964682, dated July 15, 2002, we determined that the Sony PlayStation2 ("PS2"), a video game console, was not freely programmable because:

[p]roprietary blocks in the PS2 prevent the console from running any commercially available Linux OS and only specially designed Sony disks can be read by the system. If a non-PS2 compatible disc is inserted in the console, the hardware layer (with the firmware) determines that the disc does not contain one of the accepted formats and thus does not acknowledge it as accepted media.

Significantly, we noted that to run additional Linux-based programs on the PS2, the user was required to install Sony's version of the Linux OS, which was not included with the console. Moreover, in HQ 952862, dated November 1, 1994, CBP determined that Teklogix data collection devices were not freely programmable, in part, because they were not "general purpose" machines and were designed for certain specific applications and could not by themselves perform the typical applications of computers or personal computers. HQ 952862 discussed the concept of freely programmable by examining the definitions of computer and personal computer and stated as follows:

"In determining whether a particular machine is "freely programmable," it is helpful to examine the definitions of the terms "computer" and "personal computer." A computer, which is freely programmable, is a "[g]eneral-purpose machine that processes data according to a set of instructions that are stored internally either temporarily or permanently." A. Freedman, *The Computer Glossary*, Sixth Edition, pg. 95 (1993). A personal computer "is functionally similar to larger computers, but serves only one user. It is used at home and in the office for almost all applications traditionally performed on larger computers." *Computer Glossary* (1993), pg. 400. Personal Computers "are typically used for applications, such as word processing, spreadsheets, database management and various graphics-based programs, such as computer-aided design (CAD) and desktop publishing. They are also used to handle traditional business applications, such as invoicing, payroll and general ledger. At home, personal computers are primarily used for games, education and word processing." A. Freedman, *The Computer Glossary*, Fourth Edition, pg. 524 (1989). Because they can perform any of the above-listed applications, personal computers are considered to be "freely programmable."

Applying Optrex and CBP's administrative precedent, we conclude that the

Antminer S9 is not a freely programmable ADP machine. The Antminer S9 is comprised of 189 ASIC chips. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin mining algorithm.<sup>5</sup> The Antminer S9 is designed and developed hardware right down to the chip level. In this case, the Antminer S9 is specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on an Antminer S9. Unlike the Palm PDAs in HQ 964880, the Antminer S9's architecture is not based on an open system design.

In addition, a user cannot install, modify or remove program applications on the Antminer S9. For example, the Antminer S9 cannot receive third-party applications, such as a word processing program or a virus protection program. EN 84.71(I)(A) provides that machines which operate only on fixed programs that cannot be modified by the user are excluded from heading 8471, HTSUS, even when the user may be able to choose from a number of such fixed programs. In this case, the Antminer S9 operates on fixed programs and does not accept the installation or removal of applications at will.

The protestant alleges that the Antminer S9 runs on a Linux operating system. However, a user cannot load an operating system, such as the Linux, onto the Antminer S9. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Antminer S9 itself. Therefore, the Antminer S9 does not have a functional operating system with which to perform additional tasks. The programming installed onto the Antminer S9 is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The protestant also contends that the Antminer S9 can run on a Braiins “operating system,” (“OS”).<sup>6</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. The Braiins is described as being “mostly on par with vendor firmware . . . [i]t monitors the hardware and working conditions, handles errors and provides various performance data.”<sup>7</sup> Moreover, the Braiins is referred to as the “very first fully open-source, Linux based system for cryptocurrency embedded devices” and attempts to develop a firmware to allow users of the Antminer S9 to benefit from power

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<sup>5</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that “ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.”).

<sup>6</sup> See <https://braiins-os.org/> (last visited May 20, 2019) and <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>7</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019); see also [https://medium.com/@braiins\\_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76](https://medium.com/@braiins_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76) (last visited May 20, 2019) (noting that the “most wanted feature being the S9 automatic per-chip frequency calibration mechanism” which achieves “optimum performance.”).

savings and performance improvements.<sup>8</sup> As a result, the Braiins is marketed to improve power saving and performance on miners, including the Antminer S9. The Braiins is not marketed nor does it purport to contain additional features or functions, such as the installation of third-party programs.<sup>9</sup>

Moreover, while the protestant maintains that the Braiins can be installed directly onto the Antminer S9, a quick-start guide to Braiins highly recommends installing the firmware on the SD card of a mining machine versus installing on the mining machine itself. The Braiins website further explains that if a user encounters any issues, it can “simply boot the stock firmware from the internal memory. This is a safe way we suggest to start with.”<sup>10</sup> Notably, in HQ 964682, we determined that a PS2 was not freely programmable where an installed version of an OS had to be booted through a DVD-ROM drive and these programs could only be read from an external disc drive on the Internet connected to the PS2.

Protestant further maintains that Braiins can run multiple applications on its OS, which in turns makes the Antminer S9 freely programmable and provided a list of “applications” that purportedly run on the Braiins. However, we could not find support for the protestant’s claim that the Braiins accepts the installation of additional software nor that the installation of additional software on the Braiins would not act as an impediment to the operation of the Antminer S9. Since the processors on the Antminer S9 are specialized toward mining cryptocurrency, the Antminer S9 would likely run any other program very poorly, if at all.

Indeed, the manufacturer of the Antminer S9, Bitmain, does not warrant preloaded firmware on its products nor does it warrant that the operation of upgraded firmware will be error free.<sup>11</sup> Bitmain also does not warrant “unauthorized alterations done to the hardware and firmware by any third party.” As a result, if the Braiins caused an error on the Antminer S9, the manufacturer, Bitmain would likely void the Antminer S9’s warranty. Based on these facts, we do not find that the Antminer S9 is freely programmable.

The Antminer S9 is simply not a general purpose machine because it cannot perform general purpose computing tasks. The Antminer S9 does not have input ability for a keyboard or mouse nor does it have output ability for a printer. The Antminer S9 has no word processing functions, nor can it perform calendar, music, or game applications. The Antminer is not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Its functions as imported, are limited to performing hash calculations. These limitations preclude the use of the

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<sup>8</sup> <https://braiins-os.org> (last visited May 20, 2019).

<sup>9</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019) (noting that the Braiins is still in a testing phase and recommends that its software not to be use don whole mining farms).

<sup>10</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>11</sup> See <https://service.bitmain.com/support/terms> (last visited May 20, 2019).

Antminer S9 for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

We also note that EN 84.71(I)(A) requires that ADP machines have “storage capability and also stored programs which can be changed from job to job.” The Antminer S9 has minimal onboard flash memory that is used merely to configure the machine for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Antminer S9 also does not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive. As a result, the Antminer S9 does not have sufficient memory to store and execute standard applications, unlike the Palm PDAs in HQ 964880.

The protestant relies on New York Ruling (“NY”) N285104, dated April 24, 2017, where CBP classified a credit-card sized, single board, fully functional personal computer (“Raspberry Pi”) in heading 8471, HTSUS and found that the machine was freely programmable. The Raspberry Pi was capable of using multiple types of operating systems and had numerous applications that were available for download onto the device. The Raspberry Pi was noted to work as a miniature personal computer that could perform tasks solely based on the needs of the user. There were also no hardware or software blocks preventing an end user from downloading and executing installed programs or off-the shelf software applications or performing tasks traditionally achieved by a typical laptop or personal computer. Unlike the Raspberry Pi, the Antminer S9 is not an open source device. In addition, the Antminer S9 is restricted to one function, which is mining, and is not capable of using multiple types of operating systems nor can it receive or download installed programs or off-the shelf software applications. The Antminer S9 also does not perform tasks traditionally performed by a laptop or personal computer. Therefore, NY N285104 is not applicable.

For the foregoing reasons, we find that the Antminer S9 is not “freely programmable” as required by Note 5(A)(ii) to Chapter 84, HTSUS. Therefore, the Antminer S9 does not meet the requirements of Note 5(A) to Chapter 84, HTSUS, and it is not an ADP machine of heading 8471.50, HTSUS.

In the alternative, the protestant maintains that the Antminer S9 is a unit of an ADP machine, and is classified in subheading 8471.80.90, HTSUS. In order to be a unit of an ADP machine, we must consider the requirements for units of ADP machines that are set forth in Note 5(C) to Chapter 84. While the Antminer S9 indirectly connects to a CPU via a network, it is not of a kind that is solely or principally used in an ADP system. See Note 5(C)(i) to Chapter 84 and BenQ Am. Corp. v. United States, 646 F.3d 1371, 1379-81 (Fed. Cir. 2011).

For articles governed by principal use, Additional U.S. Rule of Interpretation 1(a), HTSUS, provides that, in the absence of special language or context which otherwise requires, such use “is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use.” In other

words, the article's principal use at the time of importation determines whether it is classifiable within a particular class or kind of merchandise. See BenQ, 646 F.3d at 1379-1380.

While Additional U.S. Rule of Interpretation 1(a), HTSUS, provides general criteria for discerning the principal use of an article, it does not provide specific criteria for individual tariff provisions. However, the courts have provided factors which are indicative but not conclusive, to apply when determining whether merchandise falls within a particular class or kind. They include: general physical characteristics, the expectation of the ultimate purchaser, channels of trade, environment of sale (accompanying accessories, manner of advertisement and display), use in the same manner as merchandise which defines the class, economic practicality of so using the import, and recognition in the trade of this use. See United States v. Carborundum Co., 63 C.C.P.A 98, 102, 536 F. 2d 373, 377 (1976), cert. denied, 429 U.S. 979. CBP has applied this principle in subsequent rulings. See, e.g., HQ 082780, dated December 18, 1989. This principle has been carried over to the HTSUS, as courts have determined that principal use under the HTSUS is defined as the use which "exceeds all other uses." See Lenox Collections v. United States, 20 C.I.T. 194, 196 (1996).

There is no dispute that the Antminer S9 receives its configuration and initialization instructions from an ADP system via a network connection. However, once the Antminer S9 is configured, it receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with a mining pool after it is configured and initialized. The Antminer S9 performs the hash calculations autonomously and, as a result, the Antminer S9 is dedicated to a particular function that does not rise to the level of "solely or principally used in an [ADP] system."

In addition, an installation guide for the Antminer S9 provides instructions on how to configure, monitor, and administer the machine using an ADP system, but does not indicate that an ADP system is needed to perform the principal function of hash calculations.<sup>12</sup> A website that reviews the Antminer S9 also describes this machine as a "self-contained unit" and provides that:

The S9 is a self-contained unit, excluding the power supply. No connection is needed to another computer to interface with other Bitcoin nodes. Its onboard web management portal allows for a simplified setup and maintenance process.<sup>13</sup>

While an ADP system is used to set-up and configure the Antminer S9, the Antminer's controller board and individual hashboards perform the principal function of the machine, which is to perform hash calculations. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of

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<sup>12</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

<sup>13</sup> See <https://www.bitcoinmining.com/bitmain-antminer-s9-review-bitcoin-mining/> (last visited May 20, 2019).

these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining. This function is performed without the assistance of an ADP system, which only serves as an interface to the Antminer S9. Based on the Carborundum factors and the information above, we find that the principal use of the subject Antminer S9 is not as a unit of an ADP machine, and that Note 5(C)(i) to Chapter 84, HTSUS, is not satisfied.

Assuming arguendo that the subject merchandise satisfies the requirements of Note 5(C)(i) through 5(C)(iii), supra, we note that Note 5(C) is still subject to Note 5(E) to Chapter 84. In this respect, we find that the Antminer is excluded from heading 8471, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS. Note 5(E) provides that:

Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective function or, failing that, in residual headings.

The term “data processing” is not defined in the HTSUS. As such, it must be construed in accordance with its common meaning, which may be ascertained by reference to “dictionaries, scientific authorities, other reliable information sources,” “lexicographic and other materials” and to the pertinent ENs. C.J. Tower & Sons v. United States, 69 C.C.P.A. 128, 673 F.2d 1268, 1271 (1982); Simod America Corp. v. United States, 872 F.2d 1572, 1576 (Fed. Cir. 1989); GRK Can., Ltd. v. United States, 761 F.3d 1354, 1357 (Fed. Cir. 2014). The technical reference “Data Processing and Information Technology,”<sup>14</sup> and EN 84.71 denote that “data processing” involves the collection and manipulation of data for a specific purpose. In addition, Merriam-Webster’s Dictionary defines “data processing” as “the converting of raw data to machine-readable form and its subsequent processing (such as storing, updating, rearranging, or printing out) by a computer.”<sup>15</sup> Moreover, the Encyclopedia Britannica states that “data processing” consists of:

The manipulation of data by a computer. It includes the conversion of raw data to machine-readable form, flow of data through the CPU and memory to output devices, and formatting or transformation of output. Any use of computers to perform defined operations on data can be included under data processing.<sup>16</sup>

In the present case, the Antminer S9 does not collect, convert, manipulate, or store data, nor handle information in pre-established logical sequences. Instead, the Antminer S9 is designed, marketed, and sold for the specific purpose of generating hash numbers until the cryptographic number is solved. The function of generating numbers is a very specific function and is not a data processing function. As such, the

<sup>14</sup> French, Carl (1996). Data Processing and information Technology (10<sup>th</sup> ed.). Thomson. p.2. ISBN 1844801004 (stating that “data processing” is the “collection and manipulation of items of data to produce meaningful information.”).

<sup>15</sup> <https://www.merriam-webster.com/dictionary/data%20processing> (last visited May 20, 2019).

<sup>16</sup> <https://www.britannica.com/technology/data-processing> (last visited May 20, 2019).

Antminer S9 is excluded from subheading 8471.80, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS.

CBP has precluded a wide variety of merchandise from being classified as units of ADP machines when they fail to meet Note 5(C)(i) to Chapter 84, HTSUS, and are excluded by application of Note 5(E) to Chapter 84, HTSUS. See, e.g., HQ H082637, dated January 5, 2010 (precluding non-medical brain-computer interface devices that were not used with ADP machines and performed a function other than data processing from being classified as units of ADPs); HQ 966172, dated June 4, 2003 (precluding PC cameras from classification as units of ADP machines because they performed a function other than data processing).

The Protestant relies on HQ W968368, dated February 28, 2008 to support its contention that the Antminer S9 is not excluded by Note 5(E) to Chapter 84, HTSUS. In HQ W968368, CBP determined that control interface units that performed functions of audio and musical recording, editing, and real time-mixing and could not perform these functions without the assistance of an ADP machine were units of an ADP system. In addition, CBP noted that the control interface units were not performing a function other than data processing and therefore were not precluded from classification by Note 5(E) to Chapter 84, HTSUS. HQ W968368 is distinguishable because the devices at issue were clearly units of a kind solely or principally used with an ADP system. In the present case, the Antminer S9 functions autonomously and as stated previously, the function of hash calculating is not a recognized data processing function.

The Protestant also cites to a decision made by the Harmonized System Committee which issued a classification opinion on a cryptographic processor. See Classification Opinion 847180/1 (adopted 1998). The function of the cryptographic processor was described as providing the “necessary data security functions (e.g., authentication and encryption) which would otherwise have to be performed by software loaded onto the host [ADP] machine; this eliminates the need for storage of certain security data bases in the [ADP] machine(s)....” However, the function of the cryptographic processor is not the same of the subject Antminer S9 which is to solely perform hash calculations. Therefore, reliance on Classification Opinion 847180/1 is not applicable or persuasive.

Since the function of hash calculating is not a defined function within the tariff, and the subject Antminer S9 is electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for “[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]” EN 85.43 also provides that the “heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.” Furthermore and as stated above, the Antminer S9 performs the function of hash calculations independently and apart from other machines. Therefore, the Antminer S9 is classified in heading 8543, HTSUS.

Our decision is consistent with NY N297495, dated June 8, 2018. In NY N297495, CBP classified two cryptocurrency mining machines, including the subject Antminer S9, in heading 8543, HTSUS. CBP reasoned that the cryptocurrency machines were not ADP machines of heading 8471, HTSUS, because they were not freely programmable. In addition, CBP held that the cryptocurrency machines were also not units of an ADP machine, because an ADP machine was only used to configure the machines and once configured, the machines were nearly autonomous once their target currency was programmed onto the control board. Finally, CBP found that the process of mining cryptocurrency was not recognized as a data processing function and therefore, were excluded from heading 8471, HTSUS by application of Note 5(E) to Chapter 84.

**HOLDING:**

By application of GRI 1, the Antminer S9, is classified in heading 8543. By application of GRI 6, the Antminer S9 is classified in subheading 8543.70.99 of the 2018, HTSUS, which provides for "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other." The 2018 general column one, rate of duty is 2.6% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

You are instructed to DENY the Protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300063

December 11, 2019

**CLA-2 OT:RR:CTF:EMAIN H300063 PF**

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Port Director  
U.S. Customs and Border Protection  
John F. Kennedy International Airport  
Building 77, 2nd Floor  
Jamaica, NY 11430

Attn: Gregory Dailey, Import Specialist

**Re:** Protest and Application for Further Review No: 4701-2018-100232; Classification of a Bitmain Antminer S9 Bitcoin Miner

Dear Port Director:

The following is our decision as to Protest and Application for Further Review No. 4701-2018-100232, which was filed on June 20, 2018 on behalf of North Country Data Center Corporation (“Protestant”). The protest pertains to the classification of a Bitmain Antminer S9 Bitcoin Miner (“Antminer S9”) under the Harmonized Tariff Schedule of the United States (“HTSUS”).

The subject merchandise was entered by protestant on July 24, 2017 at the John F. Kennedy International Airport. On January 5, 2018, CBP liquidated the entry under subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.”

On June 20, 2018, protestant filed a protest and AFR regarding the tariff classification of the subject merchandise and claiming that the correct classification of the subject merchandise should be in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing

one or two of the following types of unit: storage units, input units, output units.” In the alternative, protestant maintains that the subject merchandise should be classified in subheading 8471.80.90, HTSUS, which provides for Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Other units of automatic data processing machines: Other: Other.”

Our decision takes into account the arguments presented during a February 27, 2019 meeting and supplemental submissions received on March 14, 2019 and April 26, 2019.

## FACTS:

The subject Antminer S9 is a machine used in mining various types of cryptocurrency. Cryptocurrency is defined as a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.<sup>1</sup> Individuals who possess cryptocurrency, such as Bitcoin, and seek to conduct a financial transaction rely on the network of “miners” to validate their transactions through mining.

The act of “mining cryptocurrency” is the process of updating a ledger of cryptocurrency transactions known as the blockchain. The blockchain is a series of blocks and a block is a collection of cryptocurrency transactions.<sup>2</sup> Mining is done by application specific integrated circuit (“ASIC”) miners, such as the subject Antminer S9, which compete against other cryptominers in an attempt to guess a specific number that is associated with a block containing transaction data. The first cryptominer to guess the correct number is rewarded by being able to authorize the transaction, update the blockchain, and receive a fraction of cryptocurrency.

The Antminer S9 consists of an aluminum enclosure, two cooling fans, a controller printed circuit board assembly (“PCBA”), three separate PCBAs that are commonly referred to as hashboards, and 189 ASIC chips. The Antminer S9 requires at least one separate external power supply unit (“PSU”) that is attached to the hashboards and controller board, but may use up to three PSUs, one for each hashboard, depending on the capabilities of the PSUs employed. Once power is supplied to the Antminer S9 and the unit is connected to a dynamic host configuration protocol (“DHCP”) network, the Antminer S9 will obtain an IP address automatically from a DHCP server. In order to verify the IP address, a user will download the Antminer S9’s software on an automatic data processing (“ADP”) machine, click on the IP Report button on the controller board, and view the IP address in a window on a computer screen.<sup>3</sup> A user will subsequently open a browser, enter the IP address and a

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<sup>1</sup> See <https://en.oxforddictionaries.com/definition/cryptocurrency> (last visited May 20, 2019).

<sup>2</sup> See Joseph W. Guzzetta, How Bitcoin Works-A Technological Description of Blockchain-Based Cryptocurrencies for Nontechnical Lawyers, The Computer & Internet Lawyer, Vol. 35, No. 3 (2018).

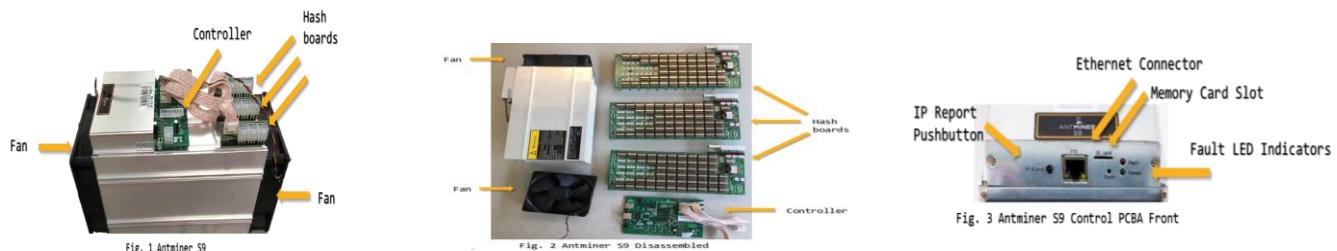
<sup>3</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

username and password, and configure the Antminer S9. Once configured, the Antminer S9 receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with the mining pool. Neither the power supply nor the ADP machine are imported with the Antminer S9.

The controller boards contain a single Ethernet RJ45 connection, a reset button, status LED indicator(s), and a memory card slot. The memory card is used to update the controller's firmware or hardware recovery. Each hashboard is populated with numerous ASICs and heat sinks on both sides. The hashboards slide into the aluminum enclosure and are connected to the control board through a ribbon cable on the data connector. There is no "motherboard" or backplane slot that connects the hashboards to the controller, they merely rest vertically in a channel inside the enclosure.

The Antminer S9 has minimal onboard flash memory and otherwise does not include a storage medium. There is no method for connecting a storage unit like a solid state drive or hard disk drive. A user cannot install, modify or remove program applications on the Antminer S9. The Antminer S9 also does not have a graphics interface, USB or similar control interface, a Bluetooth interface, audio input/output or a power supply. The Antminer S9 does not allow for general purpose computing tasks nor is it capable of displaying graphics. The Antminer S9 is programmed through firmware updates held on the memory card and configured and initialized through a network/Ethernet connected ADP machine. Mining functions are measured in "hash" calculations and are depicted as MH, GH, or TH.<sup>4</sup>

Pictures of the Antminer S9 are provided below:




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<sup>4</sup> A hash rate is the speed at which a given mining machine performs complex computations to find blocks. The mining machine has to make thousands or even millions of guesses per second to find the right answers to solve the block. MH refers to "megahash," or a million hash calculations per second, GH refers to "gigahash," or a billion hash calculations per second, and TH refers to "terrahash" or a trillion guesses per second.

**ISSUE:**

Whether the Antminer S9 is classified as a processing unit of heading 8471, HTSUS, as a unit of an ADP machine of heading 8471, HTSUS, or as an electrical machine and apparatus, having individual functions, not specified or included elsewhere in Chapter 85, of heading 8543, HTSUS.

**LAW AND ANALYSIS:**

Initially, we note that the matters protested are protestable under 19 U.S.C. §1514(a) (2) as decisions on classification. The protest was timely filed, within 180 days of liquidation of the first entry. (Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006)). Further Review of Protests No. 3004-17-100339 is properly accorded to Protestant pursuant to 19 C.F.R. § 174.24(b) because the decision against which the protest was filed is alleged to involve questions of law or fact, which have not been ruled upon by the Commissioner of Customs or his designee, or by the courts.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The 2018 HTSUS headings under consideration are as follows:

- |                   |  |
|-------------------|--|
| <b>8471</b>       | Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included.... |
| <b>8471.50.01</b> | Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units....                      |
| <b>8471.80</b>    | Other units of automatic data processing machines:<br><br>Other:   |
| <b>8471.80.90</b> | Other.   |

**8543** Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof....

8543.70 Other machines and apparatus:

Other:

Other:

8543.70.99 Other.

Additional U.S. Rules of Interpretation 1 (AUSR1), HTSUS, provides, in part:

In the absence of special language or context which otherwise requires:

- (a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use[.]

ADP machines are defined in Legal Note 5(A) to Chapter 84, HTSUS, which provide as follows:

For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:

- (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
- (ii) Being freely programmed in accordance with the requirements of the user;
- (iii) Performing arithmetical computations specified by the user; and
- (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.

To be classified as an ADP unit under heading 8471, HTSUS, an article must meet the terms of Legal Note 5(C) to Chapter 84, HTSUS, which provides that:

Subject to paragraphs (D) and (E) below, a unit is to be regarded as being a part of an automatic data processing system if it meets all the following conditions:

- (i) It is of a kind solely or principally used in an automatic data processing system;

- (ii) It is connectable to the central processing unit [CPU] either directly or through one or more other units; and
- (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

Separately presented units of an automatic data processing machine are to be classified in heading 8471....

In understanding the language of the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System, which constitute the official interpretation of the HTSUS at the international level, may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).

The ENs to heading 8471 provide, in pertinent part:

#### **(I) AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF**

Data processing is the handling of information of all kinds, in pre-established logical sequences and for a specific purpose or purposes.

Automatic data processing machines are machines which, by logically interrelated operations performed in accordance with pre-established instructions (program), furnish data which can be used as such, or, in some cases, serve in turn as data for other data processing operations.

This heading covers data processing machines in which the logical sequences of the operations can be changed from one job to another, and in which the operation can be automatic, that is to say with no manual intervention for the duration of the task....

However, the heading **excludes** machines, instruments or apparatus incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines, instruments or apparatus are classified in the headings appropriate to their respective functions or, failing that, in residual headings (See Part (E) of the General Explanatory Note to this Chapter).

#### **(A) AUTOMATIC DATA PROCESSING MACHINES**

The automatic data processing machines of this heading must be capable of fulfilling **simultaneously** the conditions laid down in Note 5(A) to this Chapter.  
[...]

Thus, machines which operate only on fixed programs, i.e., programs which cannot be modified by the user, are **excluded** even though the user may be able to choose from a number of such fixed programs.

These machines have storage capability and also stored programs which can be changed from job to job....

### (B) SEPARATELY PRESENTED UNITS

....Constituent units are those defined in Part (A) above and in the following paragraphs, as being parts of a complete system.

An apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- (a) Performs a data processing function;
- (b) Meets the following criteria set out in Note 5 (C) to this Chapter:
  - (i) It is of a kind solely or principally used in an automatic data processing system;
  - (ii) It is connectable to the central processing unit either directly or through one or more other units; and
  - (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter....

The EN to heading 8543, HTSUS, provides in pertinent part:

This heading covers all electrical appliances and apparatus, **not falling** in any other heading of this Chapter, **nor covered more specifically** by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.

The electrical appliances and apparatus of this heading must have individual functions. The introductory provisions of Explanatory Note to heading 84.79 concerning machines and mechanical appliances having individual functions apply, *mutatis mutandis*, to the appliances and apparatus of this heading.

The EN to heading 8479, HTSUS, provides, in relevant part:

For this purpose the following are to be regarded as having "individual functions":

- (A) Mechanical devices, with or without motors or other driving force, whose function can be performed distinctly from and independently of any other machine or appliance.

The Antminer S9 is capable of "storing the processing program or programs and at least the data immediately necessary for the execution of the program;" "performing

arithmetical computations specified by the user;" and "executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run." See Note 5(A)(i), (iii) and (iv) to Chapter 84, HTSUS. At issue in this case is whether the device is "capable of ... being freely programmed in accordance with the requirements of the user." See Note 5(A)(ii) to Chapter 84, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) ("Optrex"), the U.S. Court of Appeals for the Federal Circuit ("CAFC") upheld CBP's longstanding interpretation that a "freely programmable" ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. See also Headquarters Ruling Letter ("HQ") 964880, dated December 21, 2001. The Optrex court noted that "[CBP's] interpretation is supported by the World Customs Organization's Explanatory Notes [...] which provide that 'machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.' Explanatory Note 84.71(I)(A)." Id. at 1370. The court added that "[a]pplication programs are not 'fixed' because they can be installed or deleted from a machine." 427 F. Supp. 2d at 1197.

CBP has ruled that devices which enable the user to decide which applications to install or delete from the device are freely programmable. For example, in HQ 964880, supra, CBP examined the classification of the Palm VII and VIIx – personal digital assistants ("Palm PDAs") with Internet connectivity. Both models used Palm's 3.2.0 OS, a 16MHz microprocessor, and came with 2 MB of random access memory and 2 MB of read-only memory. They were imported with pre-installed applications (including a date book, an address book, a memo pad, and desk top e-mail connectivity software) and could accept additional applications that were available directly from Palm or from third-party vendors. In finding that the devices were freely programmable, CBP stressed the fact that they could be programmed in several ways: directly on the devices, with a host computer to generate a generic application, or with a host computer to generate a native application. CBP also noted that:

- (a) the Palm [OS] is an open operating system; programming tools are readily available to any user either directly from Palm or from other commercial sources;
- (b) programming tools are readily available to any user either directly from Palm or from other commercial sources; [and]
- (c) hundreds of software applications are currently available for the Palm OS through a variety of vendors who distribute them either as freeware, shareware, or commercial applications ...

CBP classified the PDAs in subheading 8471.30.00, HTSUS, as portable ADP machines.

Conversely, in HQ H026665, dated July 9, 2008, CBP ruled that the AIDA System Compact II, a machine used in hospitals to archive images, video and audio files associated with patient information onto a database, was not freely programmable because users were not free to add or remove software from the device. There, CBP noted, first, that the importer could not provide "... an affirmative representation that the hardware and software are installed into the AIDA without any proprietary restrictions or blocks" and second, that "the software installation manual and license prohibited the downloading of additional software and also identified such action as an impediment to the operation of the device."

Similarly, in HQ 964682, dated July 15, 2002, we determined that the Sony PlayStation2 ("PS2"), a video game console, was not freely programmable because:

[p]roprietary blocks in the PS2 prevent the console from running any commercially available Linux OS and only specially designed Sony disks can be read by the system. If a non-PS2 compatible disc is inserted in the console, the hardware layer (with the firmware) determines that the disc does not contain one of the accepted formats and thus does not acknowledge it as accepted media.

Significantly, we noted that to run additional Linux-based programs on the PS2, the user was required to install Sony's version of the Linux OS, which was not included with the console. Moreover, in HQ 952862, dated November 1, 1994, CBP determined that Teklogix data collection devices were not freely programmable, in part, because they were not "general purpose" machines and were designed for certain specific applications and could not by themselves perform the typical applications of computers or personal computers. HQ 952862 discussed the concept of freely programmable by examining the definitions of computer and personal computer and stated as follows:

"In determining whether a particular machine is "freely programmable," it is helpful to examine the definitions of the terms "computer" and "personal computer." A computer, which is freely programmable, is a "[g]eneral-purpose machine that processes data according to a set of instructions that are stored internally either temporarily or permanently." A. Freedman, *The Computer Glossary*, Sixth Edition, pg. 95 (1993). A personal computer "is functionally similar to larger computers, but serves only one user. It is used at home and in the office for almost all applications traditionally performed on larger computers." *Computer Glossary* (1993), pg. 400. Personal Computers "are typically used for applications, such as word processing, spreadsheets, database management and various graphics-based programs, such as computer-aided design (CAD) and desktop publishing. They are also used to handle traditional business applications, such as invoicing, payroll and general ledger. At home, personal computers are primarily used for games, education and word processing." A. Freedman, *The Computer Glossary*, Fourth Edition, pg. 524 (1989). Because they can perform any of the above-listed applications, personal computers are considered to be "freely programmable."

Applying Optrex and CBP's administrative precedent, we conclude that the

Antminer S9 is not a freely programmable ADP machine. The Antminer S9 is comprised of 189 ASIC chips. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin mining algorithm.<sup>5</sup> The Antminer S9 is designed and developed hardware right down to the chip level. In this case, the Antminer S9 is specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on an Antminer S9. Unlike the Palm PDAs in HQ 964880, the Antminer S9's architecture is not based on an open system design.

In addition, a user cannot install, modify or remove program applications on the Antminer S9. For example, the Antminer S9 cannot receive third-party applications, such as a word processing program or a virus protection program. EN 84.71(I)(A) provides that machines which operate only on fixed programs that cannot be modified by the user are excluded from heading 8471, HTSUS, even when the user may be able to choose from a number of such fixed programs. In this case, the Antminer S9 operates on fixed programs and does not accept the installation or removal of applications at will.

The protestant alleges that the Antminer S9 runs on a Linux operating system. However, a user cannot load an operating system, such as the Linux, onto the Antminer S9. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Antminer S9 itself. Therefore, the Antminer S9 does not have a functional operating system with which to perform additional tasks. The programming installed onto the Antminer S9 is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The protestant also contends that the Antminer S9 can run on a Braiins “operating system,” (“OS”).<sup>6</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. The Braiins is described as being “mostly on par with vendor firmware . . . [i]t monitors the hardware and working conditions, handles errors and provides various performance data.”<sup>7</sup> Moreover, the Braiins is referred to as the “very first fully open-source, Linux based system for cryptocurrency embedded devices” and attempts to develop a firmware to allow users of the Antminer S9 to benefit from power

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<sup>5</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that “ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.”).

<sup>6</sup> See <https://braiins-os.org/> (last visited May 20, 2019) and <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>7</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019); see also [https://medium.com/@braiins\\_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76](https://medium.com/@braiins_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76) (last visited May 20, 2019) (noting that the “most wanted feature being the S9 automatic per-chip frequency calibration mechanism” which achieves “optimum performance.”).

savings and performance improvements.<sup>8</sup> As a result, the Braiins is marketed to improve power saving and performance on miners, including the Antminer S9. The Braiins is not marketed nor does it purport to contain additional features or functions, such as the installation of third-party programs.<sup>9</sup>

Moreover, while the protestant maintains that the Braiins can be installed directly onto the Antminer S9, a quick-start guide to Braiins highly recommends installing the firmware on the SD card of a mining machine versus installing on the mining machine itself. The Braiins website further explains that if a user encounters any issues, it can “simply boot the stock firmware from the internal memory. This is a safe way we suggest to start with.”<sup>10</sup> Notably, in HQ 964682, we determined that a PS2 was not freely programmable where an installed version of an OS had to be booted through a DVD-ROM drive and these programs could only be read from an external disc drive on the Internet connected to the PS2.

Protestant further maintains that Braiins can run multiple applications on its OS, which in turns makes the Antminer S9 freely programmable and provided a list of “applications” that purportedly run on the Braiins. However, we could not find support for the protestant’s claim that the Braiins accepts the installation of additional software nor that the installation of additional software on the Braiins would not act as an impediment to the operation of the Antminer S9. Since the processors on the Antminer S9 are specialized toward mining cryptocurrency, the Antminer S9 would likely run any other program very poorly, if at all.

Indeed, the manufacturer of the Antminer S9, Bitmain, does not warrant preloaded firmware on its products nor does it warrant that the operation of upgraded firmware will be error free.<sup>11</sup> Bitmain also does not warrant “unauthorized alterations done to the hardware and firmware by any third party.” As a result, if the Braiins caused an error on the Antminer S9, the manufacturer, Bitmain would likely void the Antminer S9’s warranty. Based on these facts, we do not find that the Antminer S9 is freely programmable.

The Antminer S9 is simply not a general purpose machine because it cannot perform general purpose computing tasks. The Antminer S9 does not have input ability for a keyboard or mouse nor does it have output ability for a printer. The Antminer S9 has no word processing functions, nor can it perform calendar, music, or game applications. The Antminer is not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Its functions as imported, are limited to performing hash calculations. These limitations preclude the use of the

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<sup>8</sup> <https://braiins-os.org> (last visited May 20, 2019).

<sup>9</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019) (noting that the Braiins is still in a testing phase and recommends that its software not to be use don whole mining farms).

<sup>10</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>11</sup> See <https://service.bitmain.com/support/terms> (last visited May 20, 2019).

Antminer S9 for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

We also note that EN 84.71(I)(A) requires that ADP machines have “storage capability and also stored programs which can be changed from job to job.” The Antminer S9 has minimal onboard flash memory that is used merely to configure the machine for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Antminer S9 also does not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive. As a result, the Antminer S9 does not have sufficient memory to store and execute standard applications, unlike the Palm PDAs in HQ 964880.

The protestant relies on New York Ruling (“NY”) N285104, dated April 24, 2017, where CBP classified a credit-card sized, single board, fully functional personal computer (“Raspberry Pi”) in heading 8471, HTSUS and found that the machine was freely programmable. The Raspberry Pi was capable of using multiple types of operating systems and had numerous applications that were available for download onto the device. The Raspberry Pi was noted to work as a miniature personal computer that could perform tasks solely based on the needs of the user. There were also no hardware or software blocks preventing an end user from downloading and executing installed programs or off-the shelf software applications or performing tasks traditionally achieved by a typical laptop or personal computer. Unlike the Raspberry Pi, the Antminer S9 is not an open source device. In addition, the Antminer S9 is restricted to one function, which is mining, and is not capable of using multiple types of operating systems nor can it receive or download installed programs or off-the shelf software applications. The Antminer S9 also does not perform tasks traditionally performed by a laptop or personal computer. Therefore, NY N285104 is not applicable.

For the foregoing reasons, we find that the Antminer S9 is not “freely programmable” as required by Note 5(A)(ii) to Chapter 84, HTSUS. Therefore, the Antminer S9 does not meet the requirements of Note 5(A) to Chapter 84, HTSUS, and it is not an ADP machine of heading 8471.50, HTSUS.

In the alternative, the protestant maintains that the Antminer S9 is a unit of an ADP machine, and is classified in subheading 8471.80.90, HTSUS. In order to be a unit of an ADP machine, we must consider the requirements for units of ADP machines that are set forth in Note 5(C) to Chapter 84. While the Antminer S9 indirectly connects to a CPU via a network, it is not of a kind that is solely or principally used in an ADP system. See Note 5(C)(i) to Chapter 84 and BenQ Am. Corp. v. United States, 646 F.3d 1371, 1379-81 (Fed. Cir. 2011).

For articles governed by principal use, Additional U.S. Rule of Interpretation 1(a), HTSUS, provides that, in the absence of special language or context which otherwise requires, such use “is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use.” In other

words, the article's principal use at the time of importation determines whether it is classifiable within a particular class or kind of merchandise. See BenQ, 646 F.3d at 1379-1380.

While Additional U.S. Rule of Interpretation 1(a), HTSUS, provides general criteria for discerning the principal use of an article, it does not provide specific criteria for individual tariff provisions. However, the courts have provided factors which are indicative but not conclusive, to apply when determining whether merchandise falls within a particular class or kind. They include: general physical characteristics, the expectation of the ultimate purchaser, channels of trade, environment of sale (accompanying accessories, manner of advertisement and display), use in the same manner as merchandise which defines the class, economic practicality of so using the import, and recognition in the trade of this use. See United States v. Carborundum Co., 63 C.C.P.A 98, 102, 536 F. 2d 373, 377 (1976), cert. denied, 429 U.S. 979. CBP has applied this principle in subsequent rulings. See, e.g., HQ 082780, dated December 18, 1989. This principle has been carried over to the HTSUS, as courts have determined that principal use under the HTSUS is defined as the use which "exceeds all other uses." See Lenox Collections v. United States, 20 C.I.T. 194, 196 (1996).

There is no dispute that the Antminer S9 receives its configuration and initialization instructions from an ADP system via a network connection. However, once the Antminer S9 is configured, it receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with a mining pool after it is configured and initialized. The Antminer S9 performs the hash calculations autonomously and, as a result, the Antminer S9 is dedicated to a particular function that does not rise to the level of "solely or principally used in an [ADP] system."

In addition, an installation guide for the Antminer S9 provides instructions on how to configure, monitor, and administer the machine using an ADP system, but does not indicate that an ADP system is needed to perform the principal function of hash calculations.<sup>12</sup> A website that reviews the Antminer S9 also describes this machine as a "self-contained unit" and provides that:

The S9 is a self-contained unit, excluding the power supply. No connection is needed to another computer to interface with other Bitcoin nodes. Its onboard web management portal allows for a simplified setup and maintenance process.<sup>13</sup>

While an ADP system is used to set-up and configure the Antminer S9, the Antminer's controller board and individual hashboards perform the principal function of the machine, which is to perform hash calculations. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of

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<sup>12</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

<sup>13</sup> See <https://www.bitcoinmining.com/bitmain-antminer-s9-review-bitcoin-mining/> (last visited May 20, 2019).

these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining. This function is performed without the assistance of an ADP system, which only serves as an interface to the Antminer S9. Based on the Carborundum factors and the information above, we find that the principal use of the subject Antminer S9 is not as a unit of an ADP machine, and that Note 5(C)(i) to Chapter 84, HTSUS, is not satisfied.

Assuming arguendo that the subject merchandise satisfies the requirements of Note 5(C)(i) through 5(C)(iii), supra, we note that Note 5(C) is still subject to Note 5(E) to Chapter 84. In this respect, we find that the Antminer is excluded from heading 8471, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS. Note 5(E) provides that:

Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective function or, failing that, in residual headings.

The term “data processing” is not defined in the HTSUS. As such, it must be construed in accordance with its common meaning, which may be ascertained by reference to “dictionaries, scientific authorities, other reliable information sources,” “lexicographic and other materials” and to the pertinent ENs. C.J. Tower & Sons v. United States, 69 C.C.P.A. 128, 673 F.2d 1268, 1271 (1982); Simod America Corp. v. United States, 872 F.2d 1572, 1576 (Fed. Cir. 1989); GRK Can., Ltd. v. United States, 761 F.3d 1354, 1357 (Fed. Cir. 2014). The technical reference “Data Processing and Information Technology,”<sup>14</sup> and EN 84.71 denote that “data processing” involves the collection and manipulation of data for a specific purpose. In addition, Merriam-Webster’s Dictionary defines “data processing” as “the converting of raw data to machine-readable form and its subsequent processing (such as storing, updating, rearranging, or printing out) by a computer.”<sup>15</sup> Moreover, the Encyclopedia Britannica states that “data processing” consists of:

The manipulation of data by a computer. It includes the conversion of raw data to machine-readable form, flow of data through the CPU and memory to output devices, and formatting or transformation of output. Any use of computers to perform defined operations on data can be included under data processing.<sup>16</sup>

In the present case, the Antminer S9 does not collect, convert, manipulate, or store data, nor handle information in pre-established logical sequences. Instead, the Antminer S9 is designed, marketed, and sold for the specific purpose of generating hash numbers until the cryptographic number is solved. The function of generating numbers is a very specific function and is not a data processing function. As such, the

<sup>14</sup> French, Carl (1996). Data Processing and information Technology (10<sup>th</sup> ed.). Thomson. p.2. ISBN 1844801004 (stating that “data processing” is the “collection and manipulation of items of data to produce meaningful information.”).

<sup>15</sup> <https://www.merriam-webster.com/dictionary/data%20processing> (last visited May 20, 2019).

<sup>16</sup> <https://www.britannica.com/technology/data-processing> (last visited May 20, 2019).

Antminer S9 is excluded from subheading 8471.80, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS.

CBP has precluded a wide variety of merchandise from being classified as units of ADP machines when they fail to meet Note 5(C)(i) to Chapter 84, HTSUS, and are excluded by application of Note 5(E) to Chapter 84, HTSUS. See, e.g., HQ H082637, dated January 5, 2010 (precluding non-medical brain-computer interface devices that were not used with ADP machines and performed a function other than data processing from being classified as units of ADPs); HQ 966172, dated June 4, 2003 (precluding PC cameras from classification as units of ADP machines because they performed a function other than data processing).

The Protestant relies on HQ W968368, dated February 28, 2008 to support its contention that the Antminer S9 is not excluded by Note 5(E) to Chapter 84, HTSUS. In HQ W968368, CBP determined that control interface units that performed functions of audio and musical recording, editing, and real time-mixing and could not perform these functions without the assistance of an ADP machine were units of an ADP system. In addition, CBP noted that the control interface units were not performing a function other than data processing and therefore were not precluded from classification by Note 5(E) to Chapter 84, HTSUS. HQ W968368 is distinguishable because the devices at issue were clearly units of a kind solely or principally used with an ADP system. In the present case, the Antminer S9 functions autonomously and as stated previously, the function of hash calculating is not a recognized data processing function.

The Protestant also cites to a decision made by the Harmonized System Committee which issued a classification opinion on a cryptographic processor. See Classification Opinion 847180/1 (adopted 1998). The function of the cryptographic processor was described as providing the “necessary data security functions (e.g., authentication and encryption) which would otherwise have to be performed by software loaded onto the host [ADP] machine; this eliminates the need for storage of certain security data bases in the [ADP] machine(s)....” However, the function of the cryptographic processor is not the same of the subject Antminer S9 which is to solely perform hash calculations. Therefore, reliance on Classification Opinion 847180/1 is not applicable or persuasive.

Since the function of hash calculating is not a defined function within the tariff, and the subject Antminer S9 is electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for “[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]” EN 85.43 also provides that the “heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.” Furthermore and as stated above, the Antminer S9 performs the function of hash calculations independently and apart from other machines. Therefore, the Antminer S9 is classified in heading 8543, HTSUS.

Our decision is consistent with NY N297495, dated June 8, 2018. In NY N297495, CBP classified two cryptocurrency mining machines, including the subject Antminer S9, in heading 8543, HTSUS. CBP reasoned that the cryptocurrency machines were not ADP machines of heading 8471, HTSUS, because they were not freely programmable. In addition, CBP held that the cryptocurrency machines were also not units of an ADP machine, because an ADP machine was only used to configure the machines and once configured, the machines were nearly autonomous once their target currency was programmed onto the control board. Finally, CBP found that the process of mining cryptocurrency was not recognized as a data processing function and therefore, were excluded from heading 8471, HTSUS by application of Note 5(E) to Chapter 84.

**HOLDING:**

By application of GRI 1, the Antminer S9, is classified in heading 8543. By application of GRI 6, the Antminer S9 is classified in subheading 8543.70.99 of the 2018, HTSUS, which provides for "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other." The 2018 general column one, rate of duty is 2.6% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

You are instructed to DENY the Protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300063

December 11, 2019

**CLA-2 OT:RR:CTF:EMAIN H300063 PF**

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Port Director  
U.S. Customs and Border Protection  
John F. Kennedy International Airport  
Building 77, 2nd Floor  
Jamaica, NY 11430

Attn: Gregory Dailey, Import Specialist

**Re:** Protest and Application for Further Review No: 4701-2018-100232; Classification of a Bitmain Antminer S9 Bitcoin Miner

Dear Port Director:

The following is our decision as to Protest and Application for Further Review No. 4701-2018-100232, which was filed on June 20, 2018 on behalf of North Country Data Center Corporation (“Protestant”). The protest pertains to the classification of a Bitmain Antminer S9 Bitcoin Miner (“Antminer S9”) under the Harmonized Tariff Schedule of the United States (“HTSUS”).

The subject merchandise was entered by protestant on July 24, 2017 at the John F. Kennedy International Airport. On January 5, 2018, CBP liquidated the entry under subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.”

On June 20, 2018, protestant filed a protest and AFR regarding the tariff classification of the subject merchandise and claiming that the correct classification of the subject merchandise should be in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing

one or two of the following types of unit: storage units, input units, output units.” In the alternative, protestant maintains that the subject merchandise should be classified in subheading 8471.80.90, HTSUS, which provides for Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Other units of automatic data processing machines: Other: Other.”

Our decision takes into account the arguments presented during a February 27, 2019 meeting and supplemental submissions received on March 14, 2019 and April 26, 2019.

## FACTS:

The subject Antminer S9 is a machine used in mining various types of cryptocurrency. Cryptocurrency is defined as a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.<sup>1</sup> Individuals who possess cryptocurrency, such as Bitcoin, and seek to conduct a financial transaction rely on the network of “miners” to validate their transactions through mining.

The act of “mining cryptocurrency” is the process of updating a ledger of cryptocurrency transactions known as the blockchain. The blockchain is a series of blocks and a block is a collection of cryptocurrency transactions.<sup>2</sup> Mining is done by application specific integrated circuit (“ASIC”) miners, such as the subject Antminer S9, which compete against other cryptominers in an attempt to guess a specific number that is associated with a block containing transaction data. The first cryptominer to guess the correct number is rewarded by being able to authorize the transaction, update the blockchain, and receive a fraction of cryptocurrency.

The Antminer S9 consists of an aluminum enclosure, two cooling fans, a controller printed circuit board assembly (“PCBA”), three separate PCBAs that are commonly referred to as hashboards, and 189 ASIC chips. The Antminer S9 requires at least one separate external power supply unit (“PSU”) that is attached to the hashboards and controller board, but may use up to three PSUs, one for each hashboard, depending on the capabilities of the PSUs employed. Once power is supplied to the Antminer S9 and the unit is connected to a dynamic host configuration protocol (“DHCP”) network, the Antminer S9 will obtain an IP address automatically from a DHCP server. In order to verify the IP address, a user will download the Antminer S9’s software on an automatic data processing (“ADP”) machine, click on the IP Report button on the controller board, and view the IP address in a window on a computer screen.<sup>3</sup> A user will subsequently open a browser, enter the IP address and a

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<sup>1</sup> See <https://en.oxforddictionaries.com/definition/cryptocurrency> (last visited May 20, 2019).

<sup>2</sup> See Joseph W. Guzzetta, How Bitcoin Works-A Technological Description of Blockchain-Based Cryptocurrencies for Nontechnical Lawyers, The Computer & Internet Lawyer, Vol. 35, No. 3 (2018).

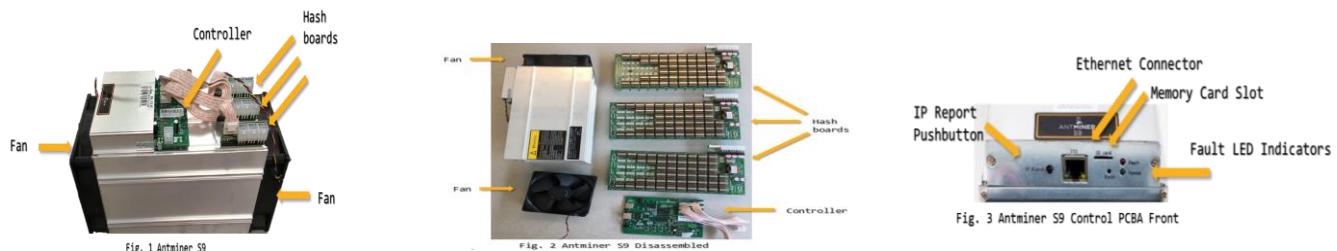
<sup>3</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

username and password, and configure the Antminer S9. Once configured, the Antminer S9 receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with the mining pool. Neither the power supply nor the ADP machine are imported with the Antminer S9.

The controller boards contain a single Ethernet RJ45 connection, a reset button, status LED indicator(s), and a memory card slot. The memory card is used to update the controller's firmware or hardware recovery. Each hashboard is populated with numerous ASICs and heat sinks on both sides. The hashboards slide into the aluminum enclosure and are connected to the control board through a ribbon cable on the data connector. There is no "motherboard" or backplane slot that connects the hashboards to the controller, they merely rest vertically in a channel inside the enclosure.

The Antminer S9 has minimal onboard flash memory and otherwise does not include a storage medium. There is no method for connecting a storage unit like a solid state drive or hard disk drive. A user cannot install, modify or remove program applications on the Antminer S9. The Antminer S9 also does not have a graphics interface, USB or similar control interface, a Bluetooth interface, audio input/output or a power supply. The Antminer S9 does not allow for general purpose computing tasks nor is it capable of displaying graphics. The Antminer S9 is programmed through firmware updates held on the memory card and configured and initialized through a network/Ethernet connected ADP machine. Mining functions are measured in "hash" calculations and are depicted as MH, GH, or TH.<sup>4</sup>

Pictures of the Antminer S9 are provided below:




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<sup>4</sup> A hash rate is the speed at which a given mining machine performs complex computations to find blocks. The mining machine has to make thousands or even millions of guesses per second to find the right answers to solve the block. MH refers to "megahash," or a million hash calculations per second, GH refers to "gigahash," or a billion hash calculations per second, and TH refers to "terrahash" or a trillion guesses per second.

**ISSUE:**

Whether the Antminer S9 is classified as a processing unit of heading 8471, HTSUS, as a unit of an ADP machine of heading 8471, HTSUS, or as an electrical machine and apparatus, having individual functions, not specified or included elsewhere in Chapter 85, of heading 8543, HTSUS.

**LAW AND ANALYSIS:**

Initially, we note that the matters protested are protestable under 19 U.S.C. §1514(a) (2) as decisions on classification. The protest was timely filed, within 180 days of liquidation of the first entry. (Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006)). Further Review of Protests No. 3004-17-100339 is properly accorded to Protestant pursuant to 19 C.F.R. § 174.24(b) because the decision against which the protest was filed is alleged to involve questions of law or fact, which have not been ruled upon by the Commissioner of Customs or his designee, or by the courts.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The 2018 HTSUS headings under consideration are as follows:

- |                   |  |
|-------------------|--|
| <b>8471</b>       | Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included.... |
| <b>8471.50.01</b> | Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units....                      |
| <b>8471.80</b>    | Other units of automatic data processing machines:<br><br>Other:   |
| <b>8471.80.90</b> | Other.   |

**8543** Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof....

8543.70 Other machines and apparatus:

Other:

Other:

8543.70.99 Other.

Additional U.S. Rules of Interpretation 1 (AUSR1), HTSUS, provides, in part:

In the absence of special language or context which otherwise requires:

- (a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use[.]

ADP machines are defined in Legal Note 5(A) to Chapter 84, HTSUS, which provide as follows:

For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:

- (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
- (ii) Being freely programmed in accordance with the requirements of the user;
- (iii) Performing arithmetical computations specified by the user; and
- (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.

To be classified as an ADP unit under heading 8471, HTSUS, an article must meet the terms of Legal Note 5(C) to Chapter 84, HTSUS, which provides that:

Subject to paragraphs (D) and (E) below, a unit is to be regarded as being a part of an automatic data processing system if it meets all the following conditions:

- (i) It is of a kind solely or principally used in an automatic data processing system;

- (ii) It is connectable to the central processing unit [CPU] either directly or through one or more other units; and
- (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

Separately presented units of an automatic data processing machine are to be classified in heading 8471....

In understanding the language of the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System, which constitute the official interpretation of the HTSUS at the international level, may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).

The ENs to heading 8471 provide, in pertinent part:

#### **(I) AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF**

Data processing is the handling of information of all kinds, in pre-established logical sequences and for a specific purpose or purposes.

Automatic data processing machines are machines which, by logically interrelated operations performed in accordance with pre-established instructions (program), furnish data which can be used as such, or, in some cases, serve in turn as data for other data processing operations.

This heading covers data processing machines in which the logical sequences of the operations can be changed from one job to another, and in which the operation can be automatic, that is to say with no manual intervention for the duration of the task....

However, the heading **excludes** machines, instruments or apparatus incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines, instruments or apparatus are classified in the headings appropriate to their respective functions or, failing that, in residual headings (See Part (E) of the General Explanatory Note to this Chapter).

#### **(A) AUTOMATIC DATA PROCESSING MACHINES**

The automatic data processing machines of this heading must be capable of fulfilling **simultaneously** the conditions laid down in Note 5(A) to this Chapter.  
[...]

Thus, machines which operate only on fixed programs, i.e., programs which cannot be modified by the user, are **excluded** even though the user may be able to choose from a number of such fixed programs.

These machines have storage capability and also stored programs which can be changed from job to job....

### (B) SEPARATELY PRESENTED UNITS

....Constituent units are those defined in Part (A) above and in the following paragraphs, as being parts of a complete system.

An apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- (a) Performs a data processing function;
- (b) Meets the following criteria set out in Note 5 (C) to this Chapter:
  - (i) It is of a kind solely or principally used in an automatic data processing system;
  - (ii) It is connectable to the central processing unit either directly or through one or more other units; and
  - (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter....

The EN to heading 8543, HTSUS, provides in pertinent part:

This heading covers all electrical appliances and apparatus, **not falling** in any other heading of this Chapter, **nor covered more specifically** by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.

The electrical appliances and apparatus of this heading must have individual functions. The introductory provisions of Explanatory Note to heading 84.79 concerning machines and mechanical appliances having individual functions apply, *mutatis mutandis*, to the appliances and apparatus of this heading.

The EN to heading 8479, HTSUS, provides, in relevant part:

For this purpose the following are to be regarded as having "individual functions":

- (A) Mechanical devices, with or without motors or other driving force, whose function can be performed distinctly from and independently of any other machine or appliance.

The Antminer S9 is capable of "storing the processing program or programs and at least the data immediately necessary for the execution of the program;" "performing

arithmetical computations specified by the user;" and "executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run." See Note 5(A)(i), (iii) and (iv) to Chapter 84, HTSUS. At issue in this case is whether the device is "capable of ... being freely programmed in accordance with the requirements of the user." See Note 5(A)(ii) to Chapter 84, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) ("Optrex"), the U.S. Court of Appeals for the Federal Circuit ("CAFC") upheld CBP's longstanding interpretation that a "freely programmable" ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. See also Headquarters Ruling Letter ("HQ") 964880, dated December 21, 2001. The Optrex court noted that "[CBP's] interpretation is supported by the World Customs Organization's Explanatory Notes [...] which provide that 'machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.' Explanatory Note 84.71(I)(A)." Id. at 1370. The court added that "[a]pplication programs are not 'fixed' because they can be installed or deleted from a machine." 427 F. Supp. 2d at 1197.

CBP has ruled that devices which enable the user to decide which applications to install or delete from the device are freely programmable. For example, in HQ 964880, supra, CBP examined the classification of the Palm VII and VIIx – personal digital assistants ("Palm PDAs") with Internet connectivity. Both models used Palm's 3.2.0 OS, a 16MHz microprocessor, and came with 2 MB of random access memory and 2 MB of read-only memory. They were imported with pre-installed applications (including a date book, an address book, a memo pad, and desk top e-mail connectivity software) and could accept additional applications that were available directly from Palm or from third-party vendors. In finding that the devices were freely programmable, CBP stressed the fact that they could be programmed in several ways: directly on the devices, with a host computer to generate a generic application, or with a host computer to generate a native application. CBP also noted that:

- (a) the Palm [OS] is an open operating system; programming tools are readily available to any user either directly from Palm or from other commercial sources;
- (b) programming tools are readily available to any user either directly from Palm or from other commercial sources; [and]
- (c) hundreds of software applications are currently available for the Palm OS through a variety of vendors who distribute them either as freeware, shareware, or commercial applications ...

CBP classified the PDAs in subheading 8471.30.00, HTSUS, as portable ADP machines.

Conversely, in HQ H026665, dated July 9, 2008, CBP ruled that the AIDA System Compact II, a machine used in hospitals to archive images, video and audio files associated with patient information onto a database, was not freely programmable because users were not free to add or remove software from the device. There, CBP noted, first, that the importer could not provide "... an affirmative representation that the hardware and software are installed into the AIDA without any proprietary restrictions or blocks" and second, that "the software installation manual and license prohibited the downloading of additional software and also identified such action as an impediment to the operation of the device."

Similarly, in HQ 964682, dated July 15, 2002, we determined that the Sony PlayStation2 ("PS2"), a video game console, was not freely programmable because:

[p]roprietary blocks in the PS2 prevent the console from running any commercially available Linux OS and only specially designed Sony disks can be read by the system. If a non-PS2 compatible disc is inserted in the console, the hardware layer (with the firmware) determines that the disc does not contain one of the accepted formats and thus does not acknowledge it as accepted media.

Significantly, we noted that to run additional Linux-based programs on the PS2, the user was required to install Sony's version of the Linux OS, which was not included with the console. Moreover, in HQ 952862, dated November 1, 1994, CBP determined that Teklogix data collection devices were not freely programmable, in part, because they were not "general purpose" machines and were designed for certain specific applications and could not by themselves perform the typical applications of computers or personal computers. HQ 952862 discussed the concept of freely programmable by examining the definitions of computer and personal computer and stated as follows:

"In determining whether a particular machine is "freely programmable," it is helpful to examine the definitions of the terms "computer" and "personal computer." A computer, which is freely programmable, is a "[g]eneral-purpose machine that processes data according to a set of instructions that are stored internally either temporarily or permanently." A. Freedman, *The Computer Glossary*, Sixth Edition, pg. 95 (1993). A personal computer "is functionally similar to larger computers, but serves only one user. It is used at home and in the office for almost all applications traditionally performed on larger computers." *Computer Glossary* (1993), pg. 400. Personal Computers "are typically used for applications, such as word processing, spreadsheets, database management and various graphics-based programs, such as computer-aided design (CAD) and desktop publishing. They are also used to handle traditional business applications, such as invoicing, payroll and general ledger. At home, personal computers are primarily used for games, education and word processing." A. Freedman, *The Computer Glossary*, Fourth Edition, pg. 524 (1989). Because they can perform any of the above-listed applications, personal computers are considered to be "freely programmable."

Applying Optrex and CBP's administrative precedent, we conclude that the

Antminer S9 is not a freely programmable ADP machine. The Antminer S9 is comprised of 189 ASIC chips. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin mining algorithm.<sup>5</sup> The Antminer S9 is designed and developed hardware right down to the chip level. In this case, the Antminer S9 is specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on an Antminer S9. Unlike the Palm PDAs in HQ 964880, the Antminer S9's architecture is not based on an open system design.

In addition, a user cannot install, modify or remove program applications on the Antminer S9. For example, the Antminer S9 cannot receive third-party applications, such as a word processing program or a virus protection program. EN 84.71(I)(A) provides that machines which operate only on fixed programs that cannot be modified by the user are excluded from heading 8471, HTSUS, even when the user may be able to choose from a number of such fixed programs. In this case, the Antminer S9 operates on fixed programs and does not accept the installation or removal of applications at will.

The protestant alleges that the Antminer S9 runs on a Linux operating system. However, a user cannot load an operating system, such as the Linux, onto the Antminer S9. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Antminer S9 itself. Therefore, the Antminer S9 does not have a functional operating system with which to perform additional tasks. The programming installed onto the Antminer S9 is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The protestant also contends that the Antminer S9 can run on a Braiins “operating system,” (“OS”).<sup>6</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. The Braiins is described as being “mostly on par with vendor firmware . . . [i]t monitors the hardware and working conditions, handles errors and provides various performance data.”<sup>7</sup> Moreover, the Braiins is referred to as the “very first fully open-source, Linux based system for cryptocurrency embedded devices” and attempts to develop a firmware to allow users of the Antminer S9 to benefit from power

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<sup>5</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that “ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.”).

<sup>6</sup> See <https://braiins-os.org/> (last visited May 20, 2019) and <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>7</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019); see also [https://medium.com/@braiins\\_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76](https://medium.com/@braiins_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76) (last visited May 20, 2019) (noting that the “most wanted feature being the S9 automatic per-chip frequency calibration mechanism” which achieves “optimum performance.”).

savings and performance improvements.<sup>8</sup> As a result, the Braiins is marketed to improve power saving and performance on miners, including the Antminer S9. The Braiins is not marketed nor does it purport to contain additional features or functions, such as the installation of third-party programs.<sup>9</sup>

Moreover, while the protestant maintains that the Braiins can be installed directly onto the Antminer S9, a quick-start guide to Braiins highly recommends installing the firmware on the SD card of a mining machine versus installing on the mining machine itself. The Braiins website further explains that if a user encounters any issues, it can “simply boot the stock firmware from the internal memory. This is a safe way we suggest to start with.”<sup>10</sup> Notably, in HQ 964682, we determined that a PS2 was not freely programmable where an installed version of an OS had to be booted through a DVD-ROM drive and these programs could only be read from an external disc drive on the Internet connected to the PS2.

Protestant further maintains that Braiins can run multiple applications on its OS, which in turns makes the Antminer S9 freely programmable and provided a list of “applications” that purportedly run on the Braiins. However, we could not find support for the protestant’s claim that the Braiins accepts the installation of additional software nor that the installation of additional software on the Braiins would not act as an impediment to the operation of the Antminer S9. Since the processors on the Antminer S9 are specialized toward mining cryptocurrency, the Antminer S9 would likely run any other program very poorly, if at all.

Indeed, the manufacturer of the Antminer S9, Bitmain, does not warrant preloaded firmware on its products nor does it warrant that the operation of upgraded firmware will be error free.<sup>11</sup> Bitmain also does not warrant “unauthorized alterations done to the hardware and firmware by any third party.” As a result, if the Braiins caused an error on the Antminer S9, the manufacturer, Bitmain would likely void the Antminer S9’s warranty. Based on these facts, we do not find that the Antminer S9 is freely programmable.

The Antminer S9 is simply not a general purpose machine because it cannot perform general purpose computing tasks. The Antminer S9 does not have input ability for a keyboard or mouse nor does it have output ability for a printer. The Antminer S9 has no word processing functions, nor can it perform calendar, music, or game applications. The Antminer is not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Its functions as imported, are limited to performing hash calculations. These limitations preclude the use of the

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<sup>8</sup> <https://braiins-os.org> (last visited May 20, 2019).

<sup>9</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019) (noting that the Braiins is still in a testing phase and recommends that its software not to be use don whole mining farms).

<sup>10</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>11</sup> See <https://service.bitmain.com/support/terms> (last visited May 20, 2019).

Antminer S9 for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

We also note that EN 84.71(I)(A) requires that ADP machines have “storage capability and also stored programs which can be changed from job to job.” The Antminer S9 has minimal onboard flash memory that is used merely to configure the machine for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Antminer S9 also does not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive. As a result, the Antminer S9 does not have sufficient memory to store and execute standard applications, unlike the Palm PDAs in HQ 964880.

The protestant relies on New York Ruling (“NY”) N285104, dated April 24, 2017, where CBP classified a credit-card sized, single board, fully functional personal computer (“Raspberry Pi”) in heading 8471, HTSUS and found that the machine was freely programmable. The Raspberry Pi was capable of using multiple types of operating systems and had numerous applications that were available for download onto the device. The Raspberry Pi was noted to work as a miniature personal computer that could perform tasks solely based on the needs of the user. There were also no hardware or software blocks preventing an end user from downloading and executing installed programs or off-the shelf software applications or performing tasks traditionally achieved by a typical laptop or personal computer. Unlike the Raspberry Pi, the Antminer S9 is not an open source device. In addition, the Antminer S9 is restricted to one function, which is mining, and is not capable of using multiple types of operating systems nor can it receive or download installed programs or off-the shelf software applications. The Antminer S9 also does not perform tasks traditionally performed by a laptop or personal computer. Therefore, NY N285104 is not applicable.

For the foregoing reasons, we find that the Antminer S9 is not “freely programmable” as required by Note 5(A)(ii) to Chapter 84, HTSUS. Therefore, the Antminer S9 does not meet the requirements of Note 5(A) to Chapter 84, HTSUS, and it is not an ADP machine of heading 8471.50, HTSUS.

In the alternative, the protestant maintains that the Antminer S9 is a unit of an ADP machine, and is classified in subheading 8471.80.90, HTSUS. In order to be a unit of an ADP machine, we must consider the requirements for units of ADP machines that are set forth in Note 5(C) to Chapter 84. While the Antminer S9 indirectly connects to a CPU via a network, it is not of a kind that is solely or principally used in an ADP system. See Note 5(C)(i) to Chapter 84 and BenQ Am. Corp. v. United States, 646 F.3d 1371, 1379-81 (Fed. Cir. 2011).

For articles governed by principal use, Additional U.S. Rule of Interpretation 1(a), HTSUS, provides that, in the absence of special language or context which otherwise requires, such use “is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use.” In other

words, the article's principal use at the time of importation determines whether it is classifiable within a particular class or kind of merchandise. See BenQ, 646 F.3d at 1379-1380.

While Additional U.S. Rule of Interpretation 1(a), HTSUS, provides general criteria for discerning the principal use of an article, it does not provide specific criteria for individual tariff provisions. However, the courts have provided factors which are indicative but not conclusive, to apply when determining whether merchandise falls within a particular class or kind. They include: general physical characteristics, the expectation of the ultimate purchaser, channels of trade, environment of sale (accompanying accessories, manner of advertisement and display), use in the same manner as merchandise which defines the class, economic practicality of so using the import, and recognition in the trade of this use. See United States v. Carborundum Co., 63 C.C.P.A 98, 102, 536 F. 2d 373, 377 (1976), cert. denied, 429 U.S. 979. CBP has applied this principle in subsequent rulings. See, e.g., HQ 082780, dated December 18, 1989. This principle has been carried over to the HTSUS, as courts have determined that principal use under the HTSUS is defined as the use which "exceeds all other uses." See Lenox Collections v. United States, 20 C.I.T. 194, 196 (1996).

There is no dispute that the Antminer S9 receives its configuration and initialization instructions from an ADP system via a network connection. However, once the Antminer S9 is configured, it receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with a mining pool after it is configured and initialized. The Antminer S9 performs the hash calculations autonomously and, as a result, the Antminer S9 is dedicated to a particular function that does not rise to the level of "solely or principally used in an [ADP] system."

In addition, an installation guide for the Antminer S9 provides instructions on how to configure, monitor, and administer the machine using an ADP system, but does not indicate that an ADP system is needed to perform the principal function of hash calculations.<sup>12</sup> A website that reviews the Antminer S9 also describes this machine as a "self-contained unit" and provides that:

The S9 is a self-contained unit, excluding the power supply. No connection is needed to another computer to interface with other Bitcoin nodes. Its onboard web management portal allows for a simplified setup and maintenance process.<sup>13</sup>

While an ADP system is used to set-up and configure the Antminer S9, the Antminer's controller board and individual hashboards perform the principal function of the machine, which is to perform hash calculations. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of

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<sup>12</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

<sup>13</sup> See <https://www.bitcoinmining.com/bitmain-antminer-s9-review-bitcoin-mining/> (last visited May 20, 2019).

these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining. This function is performed without the assistance of an ADP system, which only serves as an interface to the Antminer S9. Based on the Carborundum factors and the information above, we find that the principal use of the subject Antminer S9 is not as a unit of an ADP machine, and that Note 5(C)(i) to Chapter 84, HTSUS, is not satisfied.

Assuming arguendo that the subject merchandise satisfies the requirements of Note 5(C)(i) through 5(C)(iii), supra, we note that Note 5(C) is still subject to Note 5(E) to Chapter 84. In this respect, we find that the Antminer is excluded from heading 8471, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS. Note 5(E) provides that:

Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective function or, failing that, in residual headings.

The term “data processing” is not defined in the HTSUS. As such, it must be construed in accordance with its common meaning, which may be ascertained by reference to “dictionaries, scientific authorities, other reliable information sources,” “lexicographic and other materials” and to the pertinent ENs. C.J. Tower & Sons v. United States, 69 C.C.P.A. 128, 673 F.2d 1268, 1271 (1982); Simod America Corp. v. United States, 872 F.2d 1572, 1576 (Fed. Cir. 1989); GRK Can., Ltd. v. United States, 761 F.3d 1354, 1357 (Fed. Cir. 2014). The technical reference “Data Processing and Information Technology,”<sup>14</sup> and EN 84.71 denote that “data processing” involves the collection and manipulation of data for a specific purpose. In addition, Merriam-Webster’s Dictionary defines “data processing” as “the converting of raw data to machine-readable form and its subsequent processing (such as storing, updating, rearranging, or printing out) by a computer.”<sup>15</sup> Moreover, the Encyclopedia Britannica states that “data processing” consists of:

The manipulation of data by a computer. It includes the conversion of raw data to machine-readable form, flow of data through the CPU and memory to output devices, and formatting or transformation of output. Any use of computers to perform defined operations on data can be included under data processing.<sup>16</sup>

In the present case, the Antminer S9 does not collect, convert, manipulate, or store data, nor handle information in pre-established logical sequences. Instead, the Antminer S9 is designed, marketed, and sold for the specific purpose of generating hash numbers until the cryptographic number is solved. The function of generating numbers is a very specific function and is not a data processing function. As such, the

<sup>14</sup> French, Carl (1996). Data Processing and information Technology (10<sup>th</sup> ed.). Thomson. p.2. ISBN 1844801004 (stating that “data processing” is the “collection and manipulation of items of data to produce meaningful information.”).

<sup>15</sup> <https://www.merriam-webster.com/dictionary/data%20processing> (last visited May 20, 2019).

<sup>16</sup> <https://www.britannica.com/technology/data-processing> (last visited May 20, 2019).

Antminer S9 is excluded from subheading 8471.80, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS.

CBP has precluded a wide variety of merchandise from being classified as units of ADP machines when they fail to meet Note 5(C)(i) to Chapter 84, HTSUS, and are excluded by application of Note 5(E) to Chapter 84, HTSUS. See, e.g., HQ H082637, dated January 5, 2010 (precluding non-medical brain-computer interface devices that were not used with ADP machines and performed a function other than data processing from being classified as units of ADPs); HQ 966172, dated June 4, 2003 (precluding PC cameras from classification as units of ADP machines because they performed a function other than data processing).

The Protestant relies on HQ W968368, dated February 28, 2008 to support its contention that the Antminer S9 is not excluded by Note 5(E) to Chapter 84, HTSUS. In HQ W968368, CBP determined that control interface units that performed functions of audio and musical recording, editing, and real time-mixing and could not perform these functions without the assistance of an ADP machine were units of an ADP system. In addition, CBP noted that the control interface units were not performing a function other than data processing and therefore were not precluded from classification by Note 5(E) to Chapter 84, HTSUS. HQ W968368 is distinguishable because the devices at issue were clearly units of a kind solely or principally used with an ADP system. In the present case, the Antminer S9 functions autonomously and as stated previously, the function of hash calculating is not a recognized data processing function.

The Protestant also cites to a decision made by the Harmonized System Committee which issued a classification opinion on a cryptographic processor. See Classification Opinion 847180/1 (adopted 1998). The function of the cryptographic processor was described as providing the “necessary data security functions (e.g., authentication and encryption) which would otherwise have to be performed by software loaded onto the host [ADP] machine; this eliminates the need for storage of certain security data bases in the [ADP] machine(s)....” However, the function of the cryptographic processor is not the same of the subject Antminer S9 which is to solely perform hash calculations. Therefore, reliance on Classification Opinion 847180/1 is not applicable or persuasive.

Since the function of hash calculating is not a defined function within the tariff, and the subject Antminer S9 is electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for “[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]” EN 85.43 also provides that the “heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.” Furthermore and as stated above, the Antminer S9 performs the function of hash calculations independently and apart from other machines. Therefore, the Antminer S9 is classified in heading 8543, HTSUS.

Our decision is consistent with NY N297495, dated June 8, 2018. In NY N297495, CBP classified two cryptocurrency mining machines, including the subject Antminer S9, in heading 8543, HTSUS. CBP reasoned that the cryptocurrency machines were not ADP machines of heading 8471, HTSUS, because they were not freely programmable. In addition, CBP held that the cryptocurrency machines were also not units of an ADP machine, because an ADP machine was only used to configure the machines and once configured, the machines were nearly autonomous once their target currency was programmed onto the control board. Finally, CBP found that the process of mining cryptocurrency was not recognized as a data processing function and therefore, were excluded from heading 8471, HTSUS by application of Note 5(E) to Chapter 84.

**HOLDING:**

By application of GRI 1, the Antminer S9, is classified in heading 8543. By application of GRI 6, the Antminer S9 is classified in subheading 8543.70.99 of the 2018, HTSUS, which provides for "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other." The 2018 general column one, rate of duty is 2.6% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

You are instructed to DENY the Protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300063

December 11, 2019

**CLA-2 OT:RR:CTF:EMAIN H300063 PF**

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Port Director  
U.S. Customs and Border Protection  
John F. Kennedy International Airport  
Building 77, 2nd Floor  
Jamaica, NY 11430

Attn: Gregory Dailey, Import Specialist

**Re:** Protest and Application for Further Review No: 4701-2018-100232; Classification of a Bitmain Antminer S9 Bitcoin Miner

Dear Port Director:

The following is our decision as to Protest and Application for Further Review No. 4701-2018-100232, which was filed on June 20, 2018 on behalf of North Country Data Center Corporation (“Protestant”). The protest pertains to the classification of a Bitmain Antminer S9 Bitcoin Miner (“Antminer S9”) under the Harmonized Tariff Schedule of the United States (“HTSUS”).

The subject merchandise was entered by protestant on July 24, 2017 at the John F. Kennedy International Airport. On January 5, 2018, CBP liquidated the entry under subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.”

On June 20, 2018, protestant filed a protest and AFR regarding the tariff classification of the subject merchandise and claiming that the correct classification of the subject merchandise should be in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing

one or two of the following types of unit: storage units, input units, output units.” In the alternative, protestant maintains that the subject merchandise should be classified in subheading 8471.80.90, HTSUS, which provides for Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Other units of automatic data processing machines: Other: Other.”

Our decision takes into account the arguments presented during a February 27, 2019 meeting and supplemental submissions received on March 14, 2019 and April 26, 2019.

## FACTS:

The subject Antminer S9 is a machine used in mining various types of cryptocurrency. Cryptocurrency is defined as a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.<sup>1</sup> Individuals who possess cryptocurrency, such as Bitcoin, and seek to conduct a financial transaction rely on the network of “miners” to validate their transactions through mining.

The act of “mining cryptocurrency” is the process of updating a ledger of cryptocurrency transactions known as the blockchain. The blockchain is a series of blocks and a block is a collection of cryptocurrency transactions.<sup>2</sup> Mining is done by application specific integrated circuit (“ASIC”) miners, such as the subject Antminer S9, which compete against other cryptominers in an attempt to guess a specific number that is associated with a block containing transaction data. The first cryptominer to guess the correct number is rewarded by being able to authorize the transaction, update the blockchain, and receive a fraction of cryptocurrency.

The Antminer S9 consists of an aluminum enclosure, two cooling fans, a controller printed circuit board assembly (“PCBA”), three separate PCBAs that are commonly referred to as hashboards, and 189 ASIC chips. The Antminer S9 requires at least one separate external power supply unit (“PSU”) that is attached to the hashboards and controller board, but may use up to three PSUs, one for each hashboard, depending on the capabilities of the PSUs employed. Once power is supplied to the Antminer S9 and the unit is connected to a dynamic host configuration protocol (“DHCP”) network, the Antminer S9 will obtain an IP address automatically from a DHCP server. In order to verify the IP address, a user will download the Antminer S9’s software on an automatic data processing (“ADP”) machine, click on the IP Report button on the controller board, and view the IP address in a window on a computer screen.<sup>3</sup> A user will subsequently open a browser, enter the IP address and a

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<sup>1</sup> See <https://en.oxforddictionaries.com/definition/cryptocurrency> (last visited May 20, 2019).

<sup>2</sup> See Joseph W. Guzzetta, How Bitcoin Works-A Technological Description of Blockchain-Based Cryptocurrencies for Nontechnical Lawyers, The Computer & Internet Lawyer, Vol. 35, No. 3 (2018).

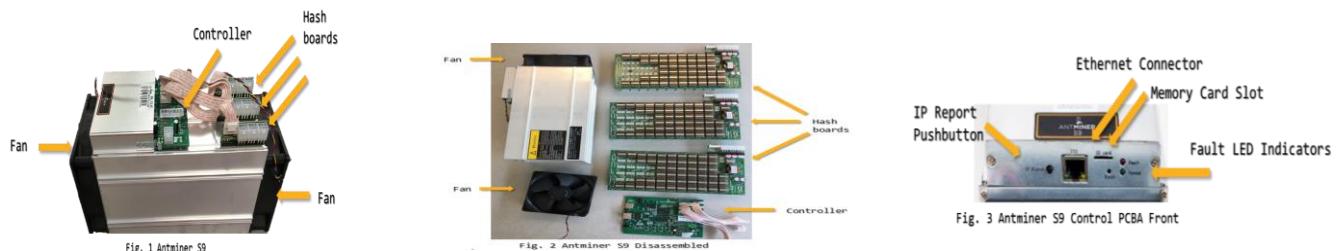
<sup>3</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

username and password, and configure the Antminer S9. Once configured, the Antminer S9 receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with the mining pool. Neither the power supply nor the ADP machine are imported with the Antminer S9.

The controller boards contain a single Ethernet RJ45 connection, a reset button, status LED indicator(s), and a memory card slot. The memory card is used to update the controller's firmware or hardware recovery. Each hashboard is populated with numerous ASICs and heat sinks on both sides. The hashboards slide into the aluminum enclosure and are connected to the control board through a ribbon cable on the data connector. There is no "motherboard" or backplane slot that connects the hashboards to the controller, they merely rest vertically in a channel inside the enclosure.

The Antminer S9 has minimal onboard flash memory and otherwise does not include a storage medium. There is no method for connecting a storage unit like a solid state drive or hard disk drive. A user cannot install, modify or remove program applications on the Antminer S9. The Antminer S9 also does not have a graphics interface, USB or similar control interface, a Bluetooth interface, audio input/output or a power supply. The Antminer S9 does not allow for general purpose computing tasks nor is it capable of displaying graphics. The Antminer S9 is programmed through firmware updates held on the memory card and configured and initialized through a network/Ethernet connected ADP machine. Mining functions are measured in "hash" calculations and are depicted as MH, GH, or TH.<sup>4</sup>

Pictures of the Antminer S9 are provided below:




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<sup>4</sup> A hash rate is the speed at which a given mining machine performs complex computations to find blocks. The mining machine has to make thousands or even millions of guesses per second to find the right answers to solve the block. MH refers to "megahash," or a million hash calculations per second, GH refers to "gigahash," or a billion hash calculations per second, and TH refers to "terrahash" or a trillion guesses per second.

**ISSUE:**

Whether the Antminer S9 is classified as a processing unit of heading 8471, HTSUS, as a unit of an ADP machine of heading 8471, HTSUS, or as an electrical machine and apparatus, having individual functions, not specified or included elsewhere in Chapter 85, of heading 8543, HTSUS.

**LAW AND ANALYSIS:**

Initially, we note that the matters protested are protestable under 19 U.S.C. §1514(a) (2) as decisions on classification. The protest was timely filed, within 180 days of liquidation of the first entry. (Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006)). Further Review of Protests No. 3004-17-100339 is properly accorded to Protestant pursuant to 19 C.F.R. § 174.24(b) because the decision against which the protest was filed is alleged to involve questions of law or fact, which have not been ruled upon by the Commissioner of Customs or his designee, or by the courts.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The 2018 HTSUS headings under consideration are as follows:

- |             |  |
|-------------|--|
| <b>8471</b> | Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included.... |
| 8471.50.01  | Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units....                      |
| 8471.80     | Other units of automatic data processing machines:<br><br>Other:   |
| 8471.80.90  | Other.   |

**8543** Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof....

8543.70 Other machines and apparatus:

Other:

Other:

8543.70.99 Other.

Additional U.S. Rules of Interpretation 1 (AUSR1), HTSUS, provides, in part:

In the absence of special language or context which otherwise requires:

- (a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use[.]

ADP machines are defined in Legal Note 5(A) to Chapter 84, HTSUS, which provide as follows:

For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:

- (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
- (ii) Being freely programmed in accordance with the requirements of the user;
- (iii) Performing arithmetical computations specified by the user; and
- (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.

To be classified as an ADP unit under heading 8471, HTSUS, an article must meet the terms of Legal Note 5(C) to Chapter 84, HTSUS, which provides that:

Subject to paragraphs (D) and (E) below, a unit is to be regarded as being a part of an automatic data processing system if it meets all the following conditions:

- (i) It is of a kind solely or principally used in an automatic data processing system;

- (ii) It is connectable to the central processing unit [CPU] either directly or through one or more other units; and
- (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

Separately presented units of an automatic data processing machine are to be classified in heading 8471....

In understanding the language of the HTSUS, the Explanatory Notes (ENs) of the Harmonized Commodity Description and Coding System, which constitute the official interpretation of the HTSUS at the international level, may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUS. See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989).

The ENs to heading 8471 provide, in pertinent part:

#### **(I) AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF**

Data processing is the handling of information of all kinds, in pre-established logical sequences and for a specific purpose or purposes.

Automatic data processing machines are machines which, by logically interrelated operations performed in accordance with pre-established instructions (program), furnish data which can be used as such, or, in some cases, serve in turn as data for other data processing operations.

This heading covers data processing machines in which the logical sequences of the operations can be changed from one job to another, and in which the operation can be automatic, that is to say with no manual intervention for the duration of the task....

However, the heading **excludes** machines, instruments or apparatus incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines, instruments or apparatus are classified in the headings appropriate to their respective functions or, failing that, in residual headings (See Part (E) of the General Explanatory Note to this Chapter).

#### **(A) AUTOMATIC DATA PROCESSING MACHINES**

The automatic data processing machines of this heading must be capable of fulfilling **simultaneously** the conditions laid down in Note 5(A) to this Chapter.  
[...]

Thus, machines which operate only on fixed programs, i.e., programs which cannot be modified by the user, are **excluded** even though the user may be able to choose from a number of such fixed programs.

These machines have storage capability and also stored programs which can be changed from job to job....

### (B) SEPARATELY PRESENTED UNITS

....Constituent units are those defined in Part (A) above and in the following paragraphs, as being parts of a complete system.

An apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- (a) Performs a data processing function;
- (b) Meets the following criteria set out in Note 5 (C) to this Chapter:
  - (i) It is of a kind solely or principally used in an automatic data processing system;
  - (ii) It is connectable to the central processing unit either directly or through one or more other units; and
  - (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter....

The EN to heading 8543, HTSUS, provides in pertinent part:

This heading covers all electrical appliances and apparatus, **not falling** in any other heading of this Chapter, **nor covered more specifically** by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.

The electrical appliances and apparatus of this heading must have individual functions. The introductory provisions of Explanatory Note to heading 84.79 concerning machines and mechanical appliances having individual functions apply, *mutatis mutandis*, to the appliances and apparatus of this heading.

The EN to heading 8479, HTSUS, provides, in relevant part:

For this purpose the following are to be regarded as having "individual functions":

- (A) Mechanical devices, with or without motors or other driving force, whose function can be performed distinctly from and independently of any other machine or appliance.

The Antminer S9 is capable of "storing the processing program or programs and at least the data immediately necessary for the execution of the program;" "performing

arithmetical computations specified by the user;" and "executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run." See Note 5(A)(i), (iii) and (iv) to Chapter 84, HTSUS. At issue in this case is whether the device is "capable of ... being freely programmed in accordance with the requirements of the user." See Note 5(A)(ii) to Chapter 84, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) ("Optrex"), the U.S. Court of Appeals for the Federal Circuit ("CAFC") upheld CBP's longstanding interpretation that a "freely programmable" ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. See also Headquarters Ruling Letter ("HQ") 964880, dated December 21, 2001. The Optrex court noted that "[CBP's] interpretation is supported by the World Customs Organization's Explanatory Notes [...] which provide that 'machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.' Explanatory Note 84.71(I)(A)." Id. at 1370. The court added that "[a]pplication programs are not 'fixed' because they can be installed or deleted from a machine." 427 F. Supp. 2d at 1197.

CBP has ruled that devices which enable the user to decide which applications to install or delete from the device are freely programmable. For example, in HQ 964880, supra, CBP examined the classification of the Palm VII and VIIx – personal digital assistants ("Palm PDAs") with Internet connectivity. Both models used Palm's 3.2.0 OS, a 16MHz microprocessor, and came with 2 MB of random access memory and 2 MB of read-only memory. They were imported with pre-installed applications (including a date book, an address book, a memo pad, and desk top e-mail connectivity software) and could accept additional applications that were available directly from Palm or from third-party vendors. In finding that the devices were freely programmable, CBP stressed the fact that they could be programmed in several ways: directly on the devices, with a host computer to generate a generic application, or with a host computer to generate a native application. CBP also noted that:

- (a) the Palm [OS] is an open operating system; programming tools are readily available to any user either directly from Palm or from other commercial sources;
- (b) programming tools are readily available to any user either directly from Palm or from other commercial sources; [and]
- (c) hundreds of software applications are currently available for the Palm OS through a variety of vendors who distribute them either as freeware, shareware, or commercial applications ...

CBP classified the PDAs in subheading 8471.30.00, HTSUS, as portable ADP machines.

Conversely, in HQ H026665, dated July 9, 2008, CBP ruled that the AIDA System Compact II, a machine used in hospitals to archive images, video and audio files associated with patient information onto a database, was not freely programmable because users were not free to add or remove software from the device. There, CBP noted, first, that the importer could not provide "... an affirmative representation that the hardware and software are installed into the AIDA without any proprietary restrictions or blocks" and second, that "the software installation manual and license prohibited the downloading of additional software and also identified such action as an impediment to the operation of the device."

Similarly, in HQ 964682, dated July 15, 2002, we determined that the Sony PlayStation2 ("PS2"), a video game console, was not freely programmable because:

[p]roprietary blocks in the PS2 prevent the console from running any commercially available Linux OS and only specially designed Sony disks can be read by the system. If a non-PS2 compatible disc is inserted in the console, the hardware layer (with the firmware) determines that the disc does not contain one of the accepted formats and thus does not acknowledge it as accepted media.

Significantly, we noted that to run additional Linux-based programs on the PS2, the user was required to install Sony's version of the Linux OS, which was not included with the console. Moreover, in HQ 952862, dated November 1, 1994, CBP determined that Teklogix data collection devices were not freely programmable, in part, because they were not "general purpose" machines and were designed for certain specific applications and could not by themselves perform the typical applications of computers or personal computers. HQ 952862 discussed the concept of freely programmable by examining the definitions of computer and personal computer and stated as follows:

"In determining whether a particular machine is "freely programmable," it is helpful to examine the definitions of the terms "computer" and "personal computer." A computer, which is freely programmable, is a "[g]eneral-purpose machine that processes data according to a set of instructions that are stored internally either temporarily or permanently." A. Freedman, *The Computer Glossary*, Sixth Edition, pg. 95 (1993). A personal computer "is functionally similar to larger computers, but serves only one user. It is used at home and in the office for almost all applications traditionally performed on larger computers." *Computer Glossary* (1993), pg. 400. Personal Computers "are typically used for applications, such as word processing, spreadsheets, database management and various graphics-based programs, such as computer-aided design (CAD) and desktop publishing. They are also used to handle traditional business applications, such as invoicing, payroll and general ledger. At home, personal computers are primarily used for games, education and word processing." A. Freedman, *The Computer Glossary*, Fourth Edition, pg. 524 (1989). Because they can perform any of the above-listed applications, personal computers are considered to be "freely programmable."

Applying Optrex and CBP's administrative precedent, we conclude that the

Antminer S9 is not a freely programmable ADP machine. The Antminer S9 is comprised of 189 ASIC chips. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin mining algorithm.<sup>5</sup> The Antminer S9 is designed and developed hardware right down to the chip level. In this case, the Antminer S9 is specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on an Antminer S9. Unlike the Palm PDAs in HQ 964880, the Antminer S9's architecture is not based on an open system design.

In addition, a user cannot install, modify or remove program applications on the Antminer S9. For example, the Antminer S9 cannot receive third-party applications, such as a word processing program or a virus protection program. EN 84.71(I)(A) provides that machines which operate only on fixed programs that cannot be modified by the user are excluded from heading 8471, HTSUS, even when the user may be able to choose from a number of such fixed programs. In this case, the Antminer S9 operates on fixed programs and does not accept the installation or removal of applications at will.

The protestant alleges that the Antminer S9 runs on a Linux operating system. However, a user cannot load an operating system, such as the Linux, onto the Antminer S9. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Antminer S9 itself. Therefore, the Antminer S9 does not have a functional operating system with which to perform additional tasks. The programming installed onto the Antminer S9 is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The protestant also contends that the Antminer S9 can run on a Braiins “operating system,” (“OS”).<sup>6</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. The Braiins is described as being “mostly on par with vendor firmware . . . [i]t monitors the hardware and working conditions, handles errors and provides various performance data.”<sup>7</sup> Moreover, the Braiins is referred to as the “very first fully open-source, Linux based system for cryptocurrency embedded devices” and attempts to develop a firmware to allow users of the Antminer S9 to benefit from power

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<sup>5</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that “ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.”).

<sup>6</sup> See <https://braiins-os.org/> (last visited May 20, 2019) and <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>7</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019); see also [https://medium.com/@braiins\\_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76](https://medium.com/@braiins_systems/the-road-to-cobalt-first-months-of-braiins-os-e4ada155ec76) (last visited May 20, 2019) (noting that the “most wanted feature being the S9 automatic per-chip frequency calibration mechanism” which achieves “optimum performance.”).

savings and performance improvements.<sup>8</sup> As a result, the Braiins is marketed to improve power saving and performance on miners, including the Antminer S9. The Braiins is not marketed nor does it purport to contain additional features or functions, such as the installation of third-party programs.<sup>9</sup>

Moreover, while the protestant maintains that the Braiins can be installed directly onto the Antminer S9, a quick-start guide to Braiins highly recommends installing the firmware on the SD card of a mining machine versus installing on the mining machine itself. The Braiins website further explains that if a user encounters any issues, it can “simply boot the stock firmware from the internal memory. This is a safe way we suggest to start with.”<sup>10</sup> Notably, in HQ 964682, we determined that a PS2 was not freely programmable where an installed version of an OS had to be booted through a DVD-ROM drive and these programs could only be read from an external disc drive on the Internet connected to the PS2.

Protestant further maintains that Braiins can run multiple applications on its OS, which in turns makes the Antminer S9 freely programmable and provided a list of “applications” that purportedly run on the Braiins. However, we could not find support for the protestant’s claim that the Braiins accepts the installation of additional software nor that the installation of additional software on the Braiins would not act as an impediment to the operation of the Antminer S9. Since the processors on the Antminer S9 are specialized toward mining cryptocurrency, the Antminer S9 would likely run any other program very poorly, if at all.

Indeed, the manufacturer of the Antminer S9, Bitmain, does not warrant preloaded firmware on its products nor does it warrant that the operation of upgraded firmware will be error free.<sup>11</sup> Bitmain also does not warrant “unauthorized alterations done to the hardware and firmware by any third party.” As a result, if the Braiins caused an error on the Antminer S9, the manufacturer, Bitmain would likely void the Antminer S9’s warranty. Based on these facts, we do not find that the Antminer S9 is freely programmable.

The Antminer S9 is simply not a general purpose machine because it cannot perform general purpose computing tasks. The Antminer S9 does not have input ability for a keyboard or mouse nor does it have output ability for a printer. The Antminer S9 has no word processing functions, nor can it perform calendar, music, or game applications. The Antminer is not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Its functions as imported, are limited to performing hash calculations. These limitations preclude the use of the

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<sup>8</sup> <https://braiins-os.org> (last visited May 20, 2019).

<sup>9</sup> See [https://medium.com/@braiins\\_systems/braiins-os-introduction-45c545d13d51?source=-----5](https://medium.com/@braiins_systems/braiins-os-introduction-45c545d13d51?source=-----5) (last visited May 20, 2019) (noting that the Braiins is still in a testing phase and recommends that its software not to be use don whole mining farms).

<sup>10</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

<sup>11</sup> See <https://service.bitmain.com/support/terms> (last visited May 20, 2019).

Antminer S9 for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

We also note that EN 84.71(I)(A) requires that ADP machines have “storage capability and also stored programs which can be changed from job to job.” The Antminer S9 has minimal onboard flash memory that is used merely to configure the machine for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Antminer S9 also does not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive. As a result, the Antminer S9 does not have sufficient memory to store and execute standard applications, unlike the Palm PDAs in HQ 964880.

The protestant relies on New York Ruling (“NY”) N285104, dated April 24, 2017, where CBP classified a credit-card sized, single board, fully functional personal computer (“Raspberry Pi”) in heading 8471, HTSUS and found that the machine was freely programmable. The Raspberry Pi was capable of using multiple types of operating systems and had numerous applications that were available for download onto the device. The Raspberry Pi was noted to work as a miniature personal computer that could perform tasks solely based on the needs of the user. There were also no hardware or software blocks preventing an end user from downloading and executing installed programs or off-the shelf software applications or performing tasks traditionally achieved by a typical laptop or personal computer. Unlike the Raspberry Pi, the Antminer S9 is not an open source device. In addition, the Antminer S9 is restricted to one function, which is mining, and is not capable of using multiple types of operating systems nor can it receive or download installed programs or off-the shelf software applications. The Antminer S9 also does not perform tasks traditionally performed by a laptop or personal computer. Therefore, NY N285104 is not applicable.

For the foregoing reasons, we find that the Antminer S9 is not “freely programmable” as required by Note 5(A)(ii) to Chapter 84, HTSUS. Therefore, the Antminer S9 does not meet the requirements of Note 5(A) to Chapter 84, HTSUS, and it is not an ADP machine of heading 8471.50, HTSUS.

In the alternative, the protestant maintains that the Antminer S9 is a unit of an ADP machine, and is classified in subheading 8471.80.90, HTSUS. In order to be a unit of an ADP machine, we must consider the requirements for units of ADP machines that are set forth in Note 5(C) to Chapter 84. While the Antminer S9 indirectly connects to a CPU via a network, it is not of a kind that is solely or principally used in an ADP system. See Note 5(C)(i) to Chapter 84 and BenQ Am. Corp. v. United States, 646 F.3d 1371, 1379-81 (Fed. Cir. 2011).

For articles governed by principal use, Additional U.S. Rule of Interpretation 1(a), HTSUS, provides that, in the absence of special language or context which otherwise requires, such use “is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use.” In other

words, the article's principal use at the time of importation determines whether it is classifiable within a particular class or kind of merchandise. See BenQ, 646 F.3d at 1379-1380.

While Additional U.S. Rule of Interpretation 1(a), HTSUS, provides general criteria for discerning the principal use of an article, it does not provide specific criteria for individual tariff provisions. However, the courts have provided factors which are indicative but not conclusive, to apply when determining whether merchandise falls within a particular class or kind. They include: general physical characteristics, the expectation of the ultimate purchaser, channels of trade, environment of sale (accompanying accessories, manner of advertisement and display), use in the same manner as merchandise which defines the class, economic practicality of so using the import, and recognition in the trade of this use. See United States v. Carborundum Co., 63 C.C.P.A 98, 102, 536 F. 2d 373, 377 (1976), cert. denied, 429 U.S. 979. CBP has applied this principle in subsequent rulings. See, e.g., HQ 082780, dated December 18, 1989. This principle has been carried over to the HTSUS, as courts have determined that principal use under the HTSUS is defined as the use which "exceeds all other uses." See Lenox Collections v. United States, 20 C.I.T. 194, 196 (1996).

There is no dispute that the Antminer S9 receives its configuration and initialization instructions from an ADP system via a network connection. However, once the Antminer S9 is configured, it receives data from a mining pool and begins to randomly produce hash calculations until solved. The Antminer S9 is continuously communicating with a mining pool after it is configured and initialized. The Antminer S9 performs the hash calculations autonomously and, as a result, the Antminer S9 is dedicated to a particular function that does not rise to the level of "solely or principally used in an [ADP] system."

In addition, an installation guide for the Antminer S9 provides instructions on how to configure, monitor, and administer the machine using an ADP system, but does not indicate that an ADP system is needed to perform the principal function of hash calculations.<sup>12</sup> A website that reviews the Antminer S9 also describes this machine as a "self-contained unit" and provides that:

The S9 is a self-contained unit, excluding the power supply. No connection is needed to another computer to interface with other Bitcoin nodes. Its onboard web management portal allows for a simplified setup and maintenance process.<sup>13</sup>

While an ADP system is used to set-up and configure the Antminer S9, the Antminer's controller board and individual hashboards perform the principal function of the machine, which is to perform hash calculations. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of

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<sup>12</sup> See Antminer S9 Installation Guide (<https://www.antminerdistribution.com/wp.../09/AntMiner-S9-Installation-Guide.pdf>) (last visited September 26, 2018).

<sup>13</sup> See <https://www.bitcoinmining.com/bitmain-antminer-s9-review-bitcoin-mining/> (last visited May 20, 2019).

these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining. This function is performed without the assistance of an ADP system, which only serves as an interface to the Antminer S9. Based on the Carborundum factors and the information above, we find that the principal use of the subject Antminer S9 is not as a unit of an ADP machine, and that Note 5(C)(i) to Chapter 84, HTSUS, is not satisfied.

Assuming arguendo that the subject merchandise satisfies the requirements of Note 5(C)(i) through 5(C)(iii), supra, we note that Note 5(C) is still subject to Note 5(E) to Chapter 84. In this respect, we find that the Antminer is excluded from heading 8471, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS. Note 5(E) provides that:

Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective function or, failing that, in residual headings.

The term “data processing” is not defined in the HTSUS. As such, it must be construed in accordance with its common meaning, which may be ascertained by reference to “dictionaries, scientific authorities, other reliable information sources,” “lexicographic and other materials” and to the pertinent ENs. C.J. Tower & Sons v. United States, 69 C.C.P.A. 128, 673 F.2d 1268, 1271 (1982); Simod America Corp. v. United States, 872 F.2d 1572, 1576 (Fed. Cir. 1989); GRK Can., Ltd. v. United States, 761 F.3d 1354, 1357 (Fed. Cir. 2014). The technical reference “Data Processing and Information Technology,”<sup>14</sup> and EN 84.71 denote that “data processing” involves the collection and manipulation of data for a specific purpose. In addition, Merriam-Webster’s Dictionary defines “data processing” as “the converting of raw data to machine-readable form and its subsequent processing (such as storing, updating, rearranging, or printing out) by a computer.”<sup>15</sup> Moreover, the Encyclopedia Britannica states that “data processing” consists of:

The manipulation of data by a computer. It includes the conversion of raw data to machine-readable form, flow of data through the CPU and memory to output devices, and formatting or transformation of output. Any use of computers to perform defined operations on data can be included under data processing.<sup>16</sup>

In the present case, the Antminer S9 does not collect, convert, manipulate, or store data, nor handle information in pre-established logical sequences. Instead, the Antminer S9 is designed, marketed, and sold for the specific purpose of generating hash numbers until the cryptographic number is solved. The function of generating numbers is a very specific function and is not a data processing function. As such, the

<sup>14</sup> French, Carl (1996). Data Processing and information Technology (10<sup>th</sup> ed.). Thomson. p.2. ISBN 1844801004 (stating that “data processing” is the “collection and manipulation of items of data to produce meaningful information.”).

<sup>15</sup> <https://www.merriam-webster.com/dictionary/data%20processing> (last visited May 20, 2019).

<sup>16</sup> <https://www.britannica.com/technology/data-processing> (last visited May 20, 2019).

Antminer S9 is excluded from subheading 8471.80, HTSUS, by application of Note 5(E) to Chapter 84, HTSUS.

CBP has precluded a wide variety of merchandise from being classified as units of ADP machines when they fail to meet Note 5(C)(i) to Chapter 84, HTSUS, and are excluded by application of Note 5(E) to Chapter 84, HTSUS. See, e.g., HQ H082637, dated January 5, 2010 (precluding non-medical brain-computer interface devices that were not used with ADP machines and performed a function other than data processing from being classified as units of ADPs); HQ 966172, dated June 4, 2003 (precluding PC cameras from classification as units of ADP machines because they performed a function other than data processing).

The Protestant relies on HQ W968368, dated February 28, 2008 to support its contention that the Antminer S9 is not excluded by Note 5(E) to Chapter 84, HTSUS. In HQ W968368, CBP determined that control interface units that performed functions of audio and musical recording, editing, and real time-mixing and could not perform these functions without the assistance of an ADP machine were units of an ADP system. In addition, CBP noted that the control interface units were not performing a function other than data processing and therefore were not precluded from classification by Note 5(E) to Chapter 84, HTSUS. HQ W968368 is distinguishable because the devices at issue were clearly units of a kind solely or principally used with an ADP system. In the present case, the Antminer S9 functions autonomously and as stated previously, the function of hash calculating is not a recognized data processing function.

The Protestant also cites to a decision made by the Harmonized System Committee which issued a classification opinion on a cryptographic processor. See Classification Opinion 847180/1 (adopted 1998). The function of the cryptographic processor was described as providing the “necessary data security functions (e.g., authentication and encryption) which would otherwise have to be performed by software loaded onto the host [ADP] machine; this eliminates the need for storage of certain security data bases in the [ADP] machine(s)....” However, the function of the cryptographic processor is not the same of the subject Antminer S9 which is to solely perform hash calculations. Therefore, reliance on Classification Opinion 847180/1 is not applicable or persuasive.

Since the function of hash calculating is not a defined function within the tariff, and the subject Antminer S9 is electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for “[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]” EN 85.43 also provides that the “heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter.” Furthermore and as stated above, the Antminer S9 performs the function of hash calculations independently and apart from other machines. Therefore, the Antminer S9 is classified in heading 8543, HTSUS.

Our decision is consistent with NY N297495, dated June 8, 2018. In NY N297495, CBP classified two cryptocurrency mining machines, including the subject Antminer S9, in heading 8543, HTSUS. CBP reasoned that the cryptocurrency machines were not ADP machines of heading 8471, HTSUS, because they were not freely programmable. In addition, CBP held that the cryptocurrency machines were also not units of an ADP machine, because an ADP machine was only used to configure the machines and once configured, the machines were nearly autonomous once their target currency was programmed onto the control board. Finally, CBP found that the process of mining cryptocurrency was not recognized as a data processing function and therefore, were excluded from heading 8471, HTSUS by application of Note 5(E) to Chapter 84.

**HOLDING:**

By application of GRI 1, the Antminer S9, is classified in heading 8543. By application of GRI 6, the Antminer S9 is classified in subheading 8543.70.99 of the 2018, HTSUS, which provides for "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other." The 2018 general column one, rate of duty is 2.6% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

You are instructed to DENY the Protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the CBP website at [www.cbp.gov](http://www.cbp.gov), by means of the Freedom of Information Act, and other methods of public distribution.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300195

December 11, 2019

**OT: RR: CTF: EMAIN:** H300195 PF

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Christopher Romero  
Signal Power and Light  
17 Executive Park Drive, NE 405  
Atlanta, GA 30329

Re: Request for Reconsideration of NY N297495; Classification of cryptocurrency mining machines

Dear Mr. Romero:

This is in response to your correspondence submitted on July 6, 2018 and October 26, 2018, in which you request reconsideration of New York Ruling Letter (“NY”) N297495, issued to you on June 8, 2018 by U.S. Customs and Border Protection (“CBP”), involves classification of certain cryptocurrency machines under the Harmonized Tariff Schedule of the United States (“HTSUS”). In NY N297495, we classified two cryptocurrency machines identified as the Antminer S9 and the DragonMint Miner (“Miners”). In preparing this ruling, we have considered additional information submitted by you on October 26, 2018, December 24, 2018, January 24, 2019 and March 11, 2019. We have determined that NY N297495 is correct, and, for the reasons set forth below, are affirming that ruling. NY N297495 provided the following description of the cryptocurrency machines:

The first item is referred to as the Antminer S9 which consists of an aluminum enclosure, two cooling fans, a control board printed circuit board assembly (PCBA), and three separate PCBAAs that are commonly referred to as hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous application specific integrated circuits (ASICs) and heat sinks on both sides.

In use, the Antminer S9 has a dedicated function of performing hash calculations for cryptocurrency transactions. Power supplies are attached to each hashboard and the

Antminer S9 is connected to a network via the Ethernet port. Users would address the Antminer S9 with a separate automatic data processing (ADP) machine and configure the device to perform the mining calculations for their selected cryptocurrency. We would note that neither the power supplies nor the ADP machine are imported with the Antminer S9.

The second item under consideration is referred to as the DragonMint Miner which consists of an aluminum enclosure, a control board, and three PCBA hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous ASICs and heat sinks on both sides. Like the Antminer S9, the DragonMint Miner is a machine dedicated to performing hash calculations for cryptocurrency transactions. Once users connect a separate power supply to the hashboards and an Ethernet connection to the controller, they would address the mining device with a separate ADP machine and configure the unit to perform the mining calculations. Neither the power supplies nor the ADP machine are imported with the DragonMint Miner.

In NY N297495, CBP classified the Miners in subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.” You maintain that the Miners are properly classified in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units.” However, because the subject Miners are not “freely programmable,” they do not meet the requirements of Note 5(A)(ii) to Chapter 84, HTSUS, and therefore cannot be classified as an ADP machine of heading 8471, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) (“Optrex”), the U.S. Court of Appeals for the Federal Circuit (“CAFC”) upheld CBP’s longstanding interpretation that a “freely programmable” ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. The Optrex court noted that “[CBP’s] interpretation is supported by the World Customs Organization’s Explanatory Notes [...] which provide that ‘machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.’ Explanatory Note 84.71(I)(A).” Id. at 1370. The court added that “[a]pplication programs are not ‘fixed’ because they can be installed or deleted from a machine.” 427 F. Supp. 2d at 1197.

Applying Optrex and CBP’s administrative precedent, we conclude that the Miners are not freely programmable ADP machines. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin

mining algorithm.<sup>1</sup> The Miners are designed and developed hardware right down to the chip level. In this case, the Miners are specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on a Miner. Unlike the Palm PDAs in HQ 964880, the Miner's architecture is not based on an open system design.

In the present case, a user cannot install, modify or remove program applications on the subject Miners. For example, the Miners cannot receive third-party applications, such as a word processing program or a virus protection program. The Miners operate on fixed programs and do not accept the installation or removal of applications at will. You state that the Miners are freely programmable because a user has the ability to telnet into the mining control board and program it to issue a command of "hello." However, this function does not establish the Miners' ability to be freely programmable within the meaning of heading 8471, HTSUS, or the Explanatory Notes.

In addition, you maintain that the Miners run on a Linux operating system. However, a user cannot load the Linux operating system onto the Miners. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Miners themselves. Moreover, you state that users can upload a Braiins "operating system" onto the Miners, which provides complete control over the miners.<sup>2</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. Moreover, a user guide to the Braiins recommends that a user install the firmware on an SD card instead of on the Miner itself.<sup>3</sup> Even after installation of the Braiins operating system, the Miners do not have a functional operating system with which to perform additional tasks. The programming installed onto the Miners is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The Miners are not general purpose machines because they cannot perform general purpose computing tasks. The Miners do not have input ability for a keyboard or mouse nor do they have output ability for a printer. The Miners have no word processing functions, nor can they perform calendar, music, or game applications. The Miners are not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Their functions as imported, are limited to performing hash calculations. These limitations preclude the use of the Miners for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

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<sup>1</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that "ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.").

<sup>2</sup> See <https://braiins-os.org/> (last visited May 20, 2019).

<sup>3</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

We also note that Explanatory Note 84.71(I)(A) requires that ADP machines have "storage capability and also stored programs which can be changed from job to job." The Miners have minimal onboard flash memory that is used merely to configure the machines for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Miners do not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive.

The principal function of the Miners is to perform hash calculations. Since the function of hash calculating is not a defined function within the tariff, and the subject Miners are electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for "[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]" Explanatory Note 85.43 also provides that the "heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter." Furthermore and as stated above, the Miners perform the function of hash calculations independently and apart from other machines. Therefore, the Miners are classified in heading 8543, HTSUS.

For all the aforementioned reasons, we hereby affirm NY N297495. Accordingly, the subject Miners remain classified in heading 8543, HTSUS, specifically in subheading 8543.70.99, HTSUS, as "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other."

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300195

December 11, 2019

**OT: RR: CTF: EMAIN:** H300195 PF

**CATEGORY:** Classification

**TARIFF NO.:** 8543.70.99

Christopher Romero  
Signal Power and Light  
17 Executive Park Drive, NE 405  
Atlanta, GA 30329

Re: Request for Reconsideration of NY N297495; Classification of cryptocurrency mining machines

Dear Mr. Romero:

This is in response to your correspondence submitted on July 6, 2018 and October 26, 2018, in which you request reconsideration of New York Ruling Letter (“NY”) N297495, issued to you on June 8, 2018 by U.S. Customs and Border Protection (“CBP”), involves classification of certain cryptocurrency machines under the Harmonized Tariff Schedule of the United States (“HTSUS”). In NY N297495, we classified two cryptocurrency machines identified as the Antminer S9 and the DragonMint Miner (“Miners”). In preparing this ruling, we have considered additional information submitted by you on October 26, 2018, December 24, 2018, January 24, 2019 and March 11, 2019. We have determined that NY N297495 is correct, and, for the reasons set forth below, are affirming that ruling. NY N297495 provided the following description of the cryptocurrency machines:

The first item is referred to as the Antminer S9 which consists of an aluminum enclosure, two cooling fans, a control board printed circuit board assembly (PCBA), and three separate PCBAAs that are commonly referred to as hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous application specific integrated circuits (ASICs) and heat sinks on both sides.

In use, the Antminer S9 has a dedicated function of performing hash calculations for cryptocurrency transactions. Power supplies are attached to each hashboard and the

Antminer S9 is connected to a network via the Ethernet port. Users would address the Antminer S9 with a separate automatic data processing (ADP) machine and configure the device to perform the mining calculations for their selected cryptocurrency. We would note that neither the power supplies nor the ADP machine are imported with the Antminer S9.

The second item under consideration is referred to as the DragonMint Miner which consists of an aluminum enclosure, a control board, and three PCBA hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous ASICs and heat sinks on both sides. Like the Antminer S9, the DragonMint Miner is a machine dedicated to performing hash calculations for cryptocurrency transactions. Once users connect a separate power supply to the hashboards and an Ethernet connection to the controller, they would address the mining device with a separate ADP machine and configure the unit to perform the mining calculations. Neither the power supplies nor the ADP machine are imported with the DragonMint Miner.

In NY N297495, CBP classified the Miners in subheading 8543.70.99, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other.” You maintain that the Miners are properly classified in subheading 8471.50.01, HTSUS, which provides for “Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included: Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units.” However, because the subject Miners are not “freely programmable,” they do not meet the requirements of Note 5(A)(ii) to Chapter 84, HTSUS, and therefore cannot be classified as an ADP machine of heading 8471, HTSUS.

In Optrex America Inc. v. United States, 427 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 475 F.3d 1367 (Fed. Cir. 2007) (“Optrex”), the U.S. Court of Appeals for the Federal Circuit (“CAFC”) upheld CBP’s longstanding interpretation that a “freely programmable” ADP machine is one that: (i) applications can be written for, (ii) does not impose artificial limitations upon such applications, and (iii) will accept new applications that allow the user to manipulate the data as deemed necessary by the user. 475 F.3d at 1368. The Optrex court noted that “[CBP’s] interpretation is supported by the World Customs Organization’s Explanatory Notes [...] which provide that ‘machines which operate only on fixed programs, that is, programs which cannot be modified by the user, are excluded [from heading 8471] even though the user may be able to choose from a number of such fixed programs.’ Explanatory Note 84.71(I)(A).” Id. at 1370. The court added that “[a]pplication programs are not ‘fixed’ because they can be installed or deleted from a machine.” 427 F. Supp. 2d at 1197.

Applying Optrex and CBP’s administrative precedent, we conclude that the Miners are not freely programmable ADP machines. The internal hardware programming of each individual ASIC chip is specifically written for a certain type of coin

mining algorithm.<sup>1</sup> The Miners are designed and developed hardware right down to the chip level. In this case, the Miners are specifically designed to perform a singular function, which is mining. Because the ASIC chip is solely designed for mining, a user cannot run an operating system or play a video game on a Miner. Unlike the Palm PDAs in HQ 964880, the Miner's architecture is not based on an open system design.

In the present case, a user cannot install, modify or remove program applications on the subject Miners. For example, the Miners cannot receive third-party applications, such as a word processing program or a virus protection program. The Miners operate on fixed programs and do not accept the installation or removal of applications at will. You state that the Miners are freely programmable because a user has the ability to telnet into the mining control board and program it to issue a command of "hello." However, this function does not establish the Miners' ability to be freely programmable within the meaning of heading 8471, HTSUS, or the Explanatory Notes.

In addition, you maintain that the Miners run on a Linux operating system. However, a user cannot load the Linux operating system onto the Miners. The Linux operating system can be installed onto a functioning ADP machine, such as a desktop or laptop, but not on the Miners themselves. Moreover, you state that users can upload a Braiins "operating system" onto the Miners, which provides complete control over the miners.<sup>2</sup> The Braiins, however, is not an OS, but a type of firmware. Firmware is strongly coupled with the hardware of a computer system and is very difficult to change. Moreover, a user guide to the Braiins recommends that a user install the firmware on an SD card instead of on the Miner itself.<sup>3</sup> Even after installation of the Braiins operating system, the Miners do not have a functional operating system with which to perform additional tasks. The programming installed onto the Miners is a proprietary ASIC controller application, which is not an operating system. The controller is a supervisory program that instructs the ASICs and allows remote access to hash calculating functions built into the unit.

The Miners are not general purpose machines because they cannot perform general purpose computing tasks. The Miners do not have input ability for a keyboard or mouse nor do they have output ability for a printer. The Miners have no word processing functions, nor can they perform calendar, music, or game applications. The Miners are not capable of displaying graphics. See HQ 952862 (noting that a lack of graphic display and pixel configuration was a factor in finding that the data collection devices were not ADP machines). Their functions as imported, are limited to performing hash calculations. These limitations preclude the use of the Miners for the typical applications associated with ADP machines, such as word processing, spreadsheets graphics-based programs, and business applications.

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<sup>1</sup> See <https://www.digitaltrends.com/computing/what-is-an-asic-miner/> (last visited May 20, 2019) (noting that "ASIC miners differ from a graphics card or CPU mining system in that those more general pieces of hardware are designed to do more than one thing.").

<sup>2</sup> See <https://braiins-os.org/> (last visited May 20, 2019).

<sup>3</sup> See <https://docs.braiins-os.org> (last visited May 20, 2019).

We also note that Explanatory Note 84.71(I)(A) requires that ADP machines have "storage capability and also stored programs which can be changed from job to job." The Miners have minimal onboard flash memory that is used merely to configure the machines for the type of cryptocurrency being mined, addresses of mining pools, and the cryptographic script that is fed to the individual hashboards. The Miners do not have the capability of connecting to a storage unit such as a solid state drive or hard disk drive.

The principal function of the Miners is to perform hash calculations. Since the function of hash calculating is not a defined function within the tariff, and the subject Miners are electrical, it is provided for in heading 8543, HTSUS. Heading 8543, HTSUS, provides for "[e]lectrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter, parts thereof[.]" Explanatory Note 85.43 also provides that the "heading covers all electrical appliances and apparatus, not falling in any other heading of this Chapter, nor covered more specifically by a heading of any other Chapter of the Nomenclature, nor excluded by the operation of a Legal Note to Section XVI or to this Chapter." Furthermore and as stated above, the Miners perform the function of hash calculations independently and apart from other machines. Therefore, the Miners are classified in heading 8543, HTSUS.

For all the aforementioned reasons, we hereby affirm NY N297495. Accordingly, the subject Miners remain classified in heading 8543, HTSUS, specifically in subheading 8543.70.99, HTSUS, as "Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and apparatus: Other: Other: Other."

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300226  
September 13, 2018

CLA-2 OT:RR:CTF:TCM H300226 GaK

CATEGORY: Origin

Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: Modification of NY N299096; country of origin of electric motors from Mexico; 2018 Section 301 trade remedy; 9903.88.01, HTSUS

Dear Mr. Turner:

This letter is to inform you that U.S. Customs and Border Protection (“CBP”) has reconsidered New York Ruling Letter (“NY”) N299096, which was issued to Johnson Electric on July 25, 2018. In NY N299096, CBP classified a brushed electric motor under subheading 8501.10.40, Harmonized Tariff Schedule of the United States (“HTSUS”), which provides for “[e]lectric motors and generators (excluding generating sets): Motors of an output not exceeding 37.5 W: Of under 18.65 W: Other.” Based on this classification, CBP determined the country of origin of the product is China pursuant to the “NAFTA Marking Rules” in 19 C.F.R. § 102. We have reviewed NY N299096 and found it to be incorrect as to the application of the NAFTA Marking Rules and the country of origin of the product. For the reasons set forth below, we are modifying NY N299096.

FACTS:

In NY N299096, the product was described as a “Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts...[T]he electric motor is intended to be used with electric door locks[.]”

The product consisted of three components: the stator or rear housing, the rotor or armature assembly, and the end cap assembly. All three components are classified under heading 8503, HTSUS, which provides for “[p]arts suitable for use solely or principally with the machines of heading 8501 or 8502.” The components of Chinese origin are imported into Mexico, and assembled into a finished product.

The ruling request in response to which NY N299092 was issued, was for a country of origin determination. Subsequent additional information provided by the inquirer revealed that the inquiry was for purposes of determining the country of origin for purposes of application of subheading 9903.88.01, HTSUS, which provides for “[a]rticles the product of China, as provided for in U.S. note 20(a) to this subchapter and as provided for in the subheadings enumerated in U.S. note 20(b) [to this subchapter]” and applies an additional 25 percent *ad valorem* rate of duty in addition to the column one general rate of duty in the applicable subheading.

ISSUE:

What is the country of origin of the electric motors imported from Mexico for purposes of marking and for purposes of application of the 2018 Section 301 trade remedy for goods under subheading 9903.88.01, HTSUS?

LAW AND ANALYSIS:

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin (or its container) imported into the U.S. shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit in such a manner as to indicate to an ultimate purchaser in the United States the English name of the country of origin of the article. The regulations implementing the requirements and exception to 19 U.S.C. § 1304 are set forth in Part 134, Customs and Border Protection Regulations (19 C.F.R. Part 134).

19 C.F.R. § 134.1(b) provides as follows:

Country of origin means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of this part; however, for a good of a NAFTA country, the NAFTA Marking Rules will determine the country of origin.

Since Mexico is a NAFTA country, the NAFTA Marking Rules must be applied in this case for purposes of determining the country of origin for purposes of marking.

Part 102, Customs and Border Protection Regulations (19 C.F.R. Part 102), sets forth the NAFTA Marking Rules. Section 102.11 provides a required hierarchy for determining the country of origin of a good for marking purposes. *See* 19 C.F.R. § 102.11. Applied in sequential order, the required hierarchy establishes that the country of origin of a good is the country in which:

- (a)(1) The good is wholly obtained or produced;
- (a)(2) The good is produced exclusively from domestic materials; or
- (a)(3) Each foreign material incorporated in that good undergoes an applicable change in tariff classification set out in Section 102.20 and satisfies any other applicable requirements of that section, and all other applicable requirements of these rules are satisfied.

Sections 102.11(a)(1) and 102.11(a)(2) do not apply to the facts presented in this case because the imported electric motor is neither wholly obtained nor produced exclusively from “domestic” (Mexican, in this case) materials. Because the analysis of sections 102.11(a)(1) and 102.11(a)(2) does not yield a country of origin determination, we look to section 102.11(a)(3). “Foreign material” is defined in 19 C.F.R. § 102.1(e) as “a material whose country of origin as determined under these rules is not the same country as the country in which the good is produced.” The applicable rule for subheading 8501.10.40, HTSUS, in section 102.20 requires:

- [a] change to heading 8501 from any other heading.

The foreign components of the electric motor are classified under heading 8503, HTSUS, and meet the tariff shift requirement. Therefore, the country of origin, for purposes of marking, of the electric motor is Mexico.

NY N299096 applied 19 CFR 102.11(d)(2) to conclude that the country of origin of the electric motor under the 102 rules was not Mexico but China because the electric motor was produced by simple assembly. However, 102.11(d) cannot be applied if the origin can be determined under 102.11 paragraphs (a), (b) or (c). In this case a determination can be made by the application of paragraph (a)(3).

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information see “Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation” (June 20, 2018, 83 F.R. 28710). Products of China that are classified in the subheadings enumerated in U.S. Note 20(b), HTSUS, referenced in subheading 9903.88.01, HTSUS, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products. Products of China classifiable in subheading 8501.10.40, HTSUS, are subject to the additional tariff under subheading 9903.88.01, HTSUS.

When considering a product that may be subject to antidumping, countervailing, or other safeguard measures, the substantial transformation analysis is applied to determine the country of origin. *See* 19 C.F.R. § 102.0; HQ 563205, dated June 28, 2006; *see also Belcrest Linens v. United States*, 741 F.2d 1368, 1370-71 (Fed. Cir. 1984) (finding that “the term ‘product of’ at the least includes manufactured articles of such country or area” and that substantial transformation “is essentially the test used...in determining whether an article is a manufacture of a given country”). In accordance with 19 C.F.R. § 102.0, the 102 marking rules are applicable for the limited purposes of: “country of origin marking; determining the rate of duty and staging category applicable to originating textile and apparel products as set out in Section 2 (Tariff Elimination) of Annex 300-B (Textile and Apparel Goods); and determining the rate of duty and staging category applicable to an originating good as set out in Annex 302.2 (Tariff Elimination).” The 102 marking rules do however continue to be applicable for purposes of country of origin marking of NAFTA goods, as defined in 19 C.F.R. § 134.1.

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade (“CIT”) interpreted the meaning of “substantial transformation” as used in the Trade Agreements Act of 1979 (“TAA”) for purposes of government procurement. *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight, under the TAA. All of the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the “name, character and use” test in determining whether a substantial transformation had occurred, and reviewed various court decisions involving substantial transformation determinations. The court noted, citing *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 226, 542 F. Supp. 1026, 1031, aff’d, 702 F.2d 1022 (Fed. Cir. 1983), that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, aff’d 989 F.2d 1201 (Fed. Cir. 1993). Furthermore, courts have considered the nature of the assembly, i.e., whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a pre-determined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights under the government procurement provisions of the TAA.

In this case, the foreign subassemblies are imported into Mexico where they will be assembled into the electric motor. The foreign subassemblies had a pre-determined end-use and did not undergo a change in use due to the assembly process in Mexico. Based on the information provided, the production process performed in Mexico is mere simple assembly and the foreign subassemblies are not substantially transformed.

As the assembly of the Chinese parts into a motor in Mexico does not result in a substantial transformation of the Chinese parts, the motor remains a product of China. Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent *ad valorem* rate of duty. At the time of importation, you

must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.40, HTSUS, listed above.

HOLDING:

The country of origin of the electric motor for purposes of marking is Mexico. The country of origin of the electric motor for purposes of the application of subheading 9903.88.01, is China.

EFFECT ON OTHER RULINGS:

NY N299096, dated July 25, 2018, is hereby MODIFIED.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H300870

January 15, 2020

**OT:RR:CTF:EMAIN:** H300870 PF

**CATEGORY:** Classification

**TARIFF NO.:** 8479.89.94

Damon V. Pike  
The Customs Law Firm, P.A.  
River Plaza  
900 South U.S. Highway One, Suite 105  
Jupiter, FL 33477

Re: Request for Reconsideration of HQ H289652; Classification of a “size reduction machine”

Dear Mr. Pike:

This is in response to your letter, September 11, 2018, in which you appeal Headquarters Ruling Letter (“HQ”) H289652 on behalf of Vecoplan Maschinenfabrik GmbH & Co. KG. (“Vecoplan” or “protestant”). HQ H289652, issued to the Port of Norfolk on July 30, 2018, by U.S. Customs and Border Protection (“CBP”), involves classification of two different models of a size reduction machine, specifically the VAZ 1600 and VAZ 1800,<sup>1</sup> under the Harmonized Tariff Schedule of the United States (“HTSUS”). In reviewing your request, we have also considered arguments presented during a November 29, 2018 meeting and a supplemental submission received on December 31, 2018. We have determined that HQ H289652 is correct, and, for the reasons set forth below, are affirming that ruling.

HQ H289652 provided the following description of the size reduction machine:

The subject size reduction machine is designed for processing plastic waste for reclamation and recycling large extruder purgings, large reject parts, trim scraps, baled or loose film, synthetic fiber, wood processing scrap, medical waste, cardboard, paper, and carpet. The size reduction machine features a large feed

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<sup>1</sup> The VAZ Model 1600 comes in two sizes: 1600 S and 1600 M.

hopper, precision hydraulic “process ram,” cutting inserts, counter knife, and a cutting rotor. The materials are loaded into the hopper, which are dropped directly inside a cutting chamber. Thereafter, a ram feeds the material into the space between a cutting rotator and a counter knife. The counter knife works in conjunction with the rotor, which has a plurality of multi-point cutters, to cut material fed into the space where the rotor and counter knife converge. The processed material exits through a screen that surrounds a portion of the circumference of the rotor. Pieces that are too large to pass through the screen are carried by the rotor back to the counter knife to be cut again.

The protestant provided pictures of the different materials, which are provided below. The pictures show aluminum and copper radiators, aluminum box lights, and woven seatbelts that have been reduced into smaller pieces.



Vecoplan and its subsidiary company, Vecoplan LLC, is the owner of two patents, Patent No. 6,837,453 and Patent No. 9,144,803, that contain multi-point cutters similar to the ones contained in the subject size reduction machine.<sup>2</sup> Patent No. 6,837,453, named a “Shredder,” describes the invention as a “rotary shredder for shredding various materials including fibrous materials . . .” and notes that the “rotor carries a plurality of cutters.”<sup>3</sup> This patent also provides that the cutters “are positioned to work in conjunction with the counter knife to cut material that accumulates between adjacent V-cutters.”<sup>4</sup> Patent No. 9,144,803, named a “Shredder with Multi-Point Cutters,” notes that “[m]aterial fed into the space

<sup>2</sup> See <https://www.vecoplanllc.com/patents> (last visited June 27, 2018), Sturm, Thomas, inventor; Vecoplan, assignee. Shredder. U.S. patent 6,837,453. January 4, 2005 and Davis, Roswell, et. al, inventors; Vecoplan LLC, assignee. Shredder with Multi-Point Cutters. U.S. patent 9,144,803, September 29, 2015.

<sup>3</sup> See Sturm, U.S. patent 6,837,453.

<sup>4</sup> See id.

between the rotor and counter knife is cut into pieces by the cutters . . .”<sup>5</sup> Moreover, the international classification for Patent No. 9,144,803 is listed as B02C18/00, which corresponds to “Disintegrating by knives or other cutting or tearing members which chop material into fragments.”<sup>6</sup>

Marketing materials for two different models of the size reduction machine describe them as “shredders.”<sup>7</sup> The product literature for the “New Generation Shredders VAZ 1300-VAZ 1600” size reduction machine refers to “Reversible counter knives located in the bed of the cutting chamber. . . .”<sup>8</sup> Moreover, the product literature for the VAZ 1800 size reduction machine refers to a “wear resistant cutting chamber.”<sup>9</sup>

On the Vecoplan website, the VAZ 1600 and VAZ 1800 size reduction machines are described as “single shaft shredders.”<sup>10</sup> The protestant also describes the size reduction machine as a “single-shaft rotary grinder.”<sup>11</sup>

The HTSUS subheadings under consideration are as follows:

8479 Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof

Other machines and mechanical appliances

\* \* \*

8479.82.00 Mixing, kneading, crushing, grinding, screening, sifting, homogenizing, emulsifying or stirring machines

\* \* \*

8479.89.94 Other

In HQ H289652, CBP classified the size reduction machine in subheading 8479.89.94, HTSUS, which provides, in relevant part, for: “Machines and mechanical

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<sup>5</sup> See Davis et al., U.S. patent 9,144,803.

<sup>6</sup> <http://www.patbase.com/classSnapshot/public/?class=B02C18/00&system=CPC> (last visited June 27, 2018).

<sup>7</sup> See [https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz\\_1800.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz_1800.pdf) and [https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz\\_1800.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz_1800.pdf) (last visited June 27, 2018).

<sup>8</sup> See [https://www.vecoplanllc.com/downloads/dl/file/id/62/product/144/newgen\\_paged.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/62/product/144/newgen_paged.pdf) (last visited June 27, 2018)

<sup>9</sup> See [https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz\\_1800.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz_1800.pdf) (last visited June 27, 2018).

<sup>10</sup> See <https://vecoplan.com/products/shredding/single-shaft-shredders/vaz-medium-duty-series/vaz-1600/> and <https://vecoplan.com/products/shredding/single-shaft-shredders/vaz-medium-duty-series/vaz-1800/> (last visited November 8, 2018).

<sup>11</sup> See Appeal, pages 2-9.

appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Other.” CBP classified the size reduction machine in subheading 8479.89.94, HTSUS, because it found that the machine performed a function that was not encompassed by subheading 8479.82, HTSUS. In particular, CBP determined that the size reduction machine functioned like a shredder because the material placed in the machine was continuously cut by cutters into smaller pieces.

Vecoplan maintains that the size reduction machine is a single rotor machine and cannot “shred” because “the resulting material must be shaped as thin, narrow strips – which two rotors can accomplish – but not one.”<sup>12</sup> The term “shred” is not defined in the HTSUS or the Explanatory Notes (“ENs”). When terms are not defined in the HTSUS or the ENs, they are construed in accordance with their common and commercial meaning. See Toyota Motor Sales (USA), Inc. v. United States, 7 C.I.T. 178, 182, 585 F. Supp. 649, 653 (1984), aff'd, 753 F.2d 1061 (Fed. Cir. 1985); Nippon Kogaku (USA), Inc. v. United States, 69 C.C.P.A. 89, 673 F.2d 380 (1982). Dictionaries and other lexicographic authorities may be utilized to determine a term's common meaning. Mast Indus., Inc. v. United States, 9 C.I.T. 549 (1985), aff'd, 786 F.2d 1144 (Fed. Cir. 1986).

However, the dictionary definitions of “shred” are not limited to material that is shaped as thin or narrow strips. The Cambridge Dictionary defines “shred” as “to cut or tear something into small pieces,”<sup>13</sup> the Oxford English Dictionary defines “shred” as a “strip of material, such as paper, cloth, or food, that has been torn, cut or scraped from something larger,”<sup>14</sup> and Merriam-Webster’s Dictionary defines “shred” as “a long narrow strip cut or torn off” and “to cut off.”<sup>15</sup> Moreover, the United States Court of Customs and Patent Appeals (“C.C.P.A.”), by relying on dictionary definitions, determined that the common meaning of the term “shred” included “[t]o tear, *cut* or separate into small irregular or jagged strips or pieces; reduce to long and narrow fragments, as fibrous material . . . “[t]o *cut* or tear into small pieces; also, to *cut* or tear pieces from.” See W.R. Grace & Co. v. United States, 19 C.C.P.A. 326, 329 (1932).

The single shaft rotor of the subject size reduction machine, which has multi-point cutters, is positioned to work in conjunction with the counter knife to cut material.<sup>16</sup> Moreover, the material that is fed into the space between the rotor and the counter knife is cut into pieces by the cutters. The functions of the size reduction machine clearly fit the dictionary definition of shred, which is to cut material into smaller pieces, regardless of the fact that it is a single rotor machine.<sup>17</sup> Moreover, in NY N248108, dated December 10, 2013, CBP held that “[c]utting and tearing [were] not functions encompassed by subheading 8479.82.0080, HTSUS.” In NY E85833, dated September

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<sup>12</sup> See Appeal, page 2.

<sup>13</sup> See <https://dictionary.cambridge.org/dictionary/english/shred> (last visited February 6, 2019).

<sup>14</sup> See <https://en.oxforddictionaries.com/definition/shred> (last visited February 6, 2019).

<sup>15</sup> See <https://www.merriam-webster.com/dictionary/shred> (last visited February 6, 2019).

<sup>16</sup> See Sturm, U.S. patent 6,837,453.

<sup>17</sup> See Davis et al., U.S. patent 9,144,803.

2, 1999, CBP also determined that shredding was not mentioned in the language of subheading 8479.82.00, nor was it synonymous with any of the terms of the subheading.

Vecoplan's argument that the size reduction machine either "crushes" or "grinds" is inconsistent with its patents that describe the technology and the product literature for the subject size reduction machine. Vecoplan product literature indicates that the protestant has a patent pending that uses a "SureCut™ Cutting System."<sup>18</sup> The SureCut™ Cutting System is described as having a "[c]lose tolerance knife gap for precision cutting action", "[a]uxiliary 'nip' cutters cut strands against bed knife to prevent wrapping", "[h]ard-faced cutter mount for longer wear", and a "[w]edge bed knife for improved cutting angle".<sup>19</sup> According to protestant's product literature, the SureCut™ Cutting System is used in models VAZ 1600 S, VAZ 1600 S XL, VAZ 1600 M, and VAZ 1600 M XL of the subject size reduction machine.<sup>20</sup> Moreover, product literature for the VAZ 1800 model notes that the product contains "4-way, indexable cutting inserts" and a [h]igh output 'torsion point' cutting rotor."<sup>21</sup>

While we acknowledge that the protestant maintains that the term "shredding," is just used for marketing purposes and to avoid confusion in the plastics industry,<sup>22</sup> the purpose of the subject size reduction machine is to reduce material into smaller sizes by a shredding or cutting action. Moreover, the size reduction machine works on a variety of materials, including wood, paper, and textile fabrics<sup>23</sup> and there is no evidence to support that the subject size reduction machine incorporates any features that limits its use to a particular type of material.

Finally, and as we stated in our original decision, while the subject size reduction machines does have a screening functionality, such a function is subsidiary to the operation of cutting the materials passing through them. The fact that screening only occurs after the material has been cut by the rotor and counter knife indicates that screening is not the primary function of the size reduction machine. Therefore, the size reduction machine is not a "screening" machine of subheading 8479.82.00, HTSUS.

For all the aforementioned reasons, we hereby affirm HQ H289652. Accordingly, the subject size reduction machine remains classified in subheading 8479.89.94, HTSUS, which provides, in relevant part, for: "Machines and mechanical appliances

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<sup>18</sup> See [https://www.vecoplanllc.com/downloads/dl/file/id/124/.../film\\_fiber\\_shredders.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/124/.../film_fiber_shredders.pdf) (last visited February 6, 2019).

<sup>19</sup> Id. at 3.

<sup>20</sup> Id. at 4.

<sup>21</sup> See <https://www.vecoplanllc.com/vaz-1800-rotary-shredder> (last visited February 6, 2019).

<sup>22</sup> See Appeal Supplement, pages 4-6.

<sup>23</sup> See <https://www.vecoplanllc.com/vaz-1800-rotary-shredder/> and <https://vecoplan.com/products/shredding/single-shaft-shredders/vaz-medium-duty-series/vaz-1600/> (last visited February 6, 2019).

having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Other.”

Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division

HQ H300870

January 15, 2020

**OT:RR:CTF:EMAIN:** H300870 PF

**CATEGORY:** Classification

**TARIFF NO.:** 8479.89.94

Damon V. Pike  
The Customs Law Firm, P.A.  
River Plaza  
900 South U.S. Highway One, Suite 105  
Jupiter, FL 33477

Re: Request for Reconsideration of HQ H289652; Classification of a “size reduction machine”

Dear Mr. Pike:

This is in response to your letter, September 11, 2018, in which you appeal Headquarters Ruling Letter (“HQ”) H289652 on behalf of Vecoplan Maschinenfabrik GmbH & Co. KG. (“Vecoplan” or “protestant”). HQ H289652, issued to the Port of Norfolk on July 30, 2018, by U.S. Customs and Border Protection (“CBP”), involves classification of two different models of a size reduction machine, specifically the VAZ 1600 and VAZ 1800,<sup>1</sup> under the Harmonized Tariff Schedule of the United States (“HTSUS”). In reviewing your request, we have also considered arguments presented during a November 29, 2018 meeting and a supplemental submission received on December 31, 2018. We have determined that HQ H289652 is correct, and, for the reasons set forth below, are affirming that ruling.

HQ H289652 provided the following description of the size reduction machine:

The subject size reduction machine is designed for processing plastic waste for reclamation and recycling large extruder purgings, large reject parts, trim scraps, baled or loose film, synthetic fiber, wood processing scrap, medical waste, cardboard, paper, and carpet. The size reduction machine features a large feed

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<sup>1</sup> The VAZ Model 1600 comes in two sizes: 1600 S and 1600 M.

hopper, precision hydraulic “process ram,” cutting inserts, counter knife, and a cutting rotor. The materials are loaded into the hopper, which are dropped directly inside a cutting chamber. Thereafter, a ram feeds the material into the space between a cutting rotator and a counter knife. The counter knife works in conjunction with the rotor, which has a plurality of multi-point cutters, to cut material fed into the space where the rotor and counter knife converge. The processed material exits through a screen that surrounds a portion of the circumference of the rotor. Pieces that are too large to pass through the screen are carried by the rotor back to the counter knife to be cut again.

The protestant provided pictures of the different materials, which are provided below. The pictures show aluminum and copper radiators, aluminum box lights, and woven seatbelts that have been reduced into smaller pieces.



Vecoplan and its subsidiary company, Vecoplan LLC, is the owner of two patents, Patent No. 6,837,453 and Patent No. 9,144,803, that contain multi-point cutters similar to the ones contained in the subject size reduction machine.<sup>2</sup> Patent No. 6,837,453, named a “Shredder,” describes the invention as a “rotary shredder for shredding various materials including fibrous materials . . .” and notes that the “rotor carries a plurality of cutters.”<sup>3</sup> This patent also provides that the cutters “are positioned to work in conjunction with the counter knife to cut material that accumulates between adjacent V-cutters.”<sup>4</sup> Patent No. 9,144,803, named a “Shredder with Multi-Point Cutters,” notes that “[m]aterial fed into the space

<sup>2</sup> See <https://www.vecoplanllc.com/patents> (last visited June 27, 2018), Sturm, Thomas, inventor; Vecoplan, assignee. Shredder. U.S. patent 6,837,453. January 4, 2005 and Davis, Roswell, et. al, inventors; Vecoplan LLC, assignee. Shredder with Multi-Point Cutters. U.S. patent 9,144,803, September 29, 2015.

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between the rotor and counter knife is cut into pieces by the cutters . . .”<sup>5</sup> Moreover, the international classification for Patent No. 9,144,803 is listed as B02C18/00, which corresponds to “Disintegrating by knives or other cutting or tearing members which chop material into fragments.”<sup>6</sup>

Marketing materials for two different models of the size reduction machine describe them as “shredders.”<sup>7</sup> The product literature for the “New Generation Shredders VAZ 1300-VAZ 1600” size reduction machine refers to “Reversible counter knives located in the bed of the cutting chamber. . . .”<sup>8</sup> Moreover, the product literature for the VAZ 1800 size reduction machine refers to a “wear resistant cutting chamber.”<sup>9</sup>

On the Vecoplan website, the VAZ 1600 and VAZ 1800 size reduction machines are described as “single shaft shredders.”<sup>10</sup> The protestant also describes the size reduction machine as a “single-shaft rotary grinder.”<sup>11</sup>

The HTSUS subheadings under consideration are as follows:

8479 Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof

Other machines and mechanical appliances

\* \* \*

8479.82.00 Mixing, kneading, crushing, grinding, screening, sifting, homogenizing, emulsifying or stirring machines

\* \* \*

8479.89.94 Other

In HQ H289652, CBP classified the size reduction machine in subheading 8479.89.94, HTSUS, which provides, in relevant part, for: “Machines and mechanical

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<sup>5</sup> See Davis et al., U.S. patent 9,144,803.

<sup>6</sup> <http://www.patbase.com/classSnapshot/public/?class=B02C18/00&system=CPC> (last visited June 27, 2018).

<sup>7</sup> See [https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz\\_1800.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz_1800.pdf) and [https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz\\_1800.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/71/product/145/vaz_1800.pdf) (last visited June 27, 2018).

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Vecoplan maintains that the size reduction machine is a single rotor machine and cannot "shred" because "the resulting material must be shaped as thin, narrow strips – which two rotors can accomplish – but not one."<sup>12</sup> The term "shred" is not defined in the HTSUS or the Explanatory Notes ("ENs"). When terms are not defined in the HTSUS or the ENs, they are construed in accordance with their common and commercial meaning. See Toyota Motor Sales (USA), Inc. v. United States, 7 C.I.T. 178, 182, 585 F. Supp. 649, 653 (1984), aff'd, 753 F.2d 1061 (Fed. Cir. 1985); Nippon Kogaku (USA), Inc. v. United States, 69 C.C.P.A. 89, 673 F.2d 380 (1982). Dictionaries and other lexicographic authorities may be utilized to determine a term's common meaning. Mast Indus., Inc. v. United States, 9 C.I.T. 549 (1985), aff'd, 786 F.2d 1144 (Fed. Cir. 1986).

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For all the aforementioned reasons, we hereby affirm HQ H289652. Accordingly, the subject size reduction machine remains classified in subheading 8479.89.94, HTSUS, which provides, in relevant part, for: "Machines and mechanical appliances

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Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division

HQ H300870

January 15, 2020

**OT:RR:CTF:EMAIN:** H300870 PF

**CATEGORY:** Classification

**TARIFF NO.:** 8479.89.94

Damon V. Pike  
The Customs Law Firm, P.A.  
River Plaza  
900 South U.S. Highway One, Suite 105  
Jupiter, FL 33477

Re: Request for Reconsideration of HQ H289652; Classification of a “size reduction machine”

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Vecoplan maintains that the size reduction machine is a single rotor machine and cannot "shred" because "the resulting material must be shaped as thin, narrow strips – which two rotors can accomplish – but not one."<sup>12</sup> The term "shred" is not defined in the HTSUS or the Explanatory Notes ("ENs"). When terms are not defined in the HTSUS or the ENs, they are construed in accordance with their common and commercial meaning. See Toyota Motor Sales (USA), Inc. v. United States, 7 C.I.T. 178, 182, 585 F. Supp. 649, 653 (1984), aff'd, 753 F.2d 1061 (Fed. Cir. 1985); Nippon Kogaku (USA), Inc. v. United States, 69 C.C.P.A. 89, 673 F.2d 380 (1982). Dictionaries and other lexicographic authorities may be utilized to determine a term's common meaning. Mast Indus., Inc. v. United States, 9 C.I.T. 549 (1985), aff'd, 786 F.2d 1144 (Fed. Cir. 1986).

However, the dictionary definitions of "shred" are not limited to material that is shaped as thin or narrow strips. The Cambridge Dictionary defines "shred" as "to cut or tear something into small pieces,"<sup>13</sup> the Oxford English Dictionary defines "shred" as a "strip of material, such as paper, cloth, or food, that has been torn, cut or scraped from something larger,"<sup>14</sup> and Merriam-Webster's Dictionary defines "shred" as "a long narrow strip cut or torn off" and "to cut off."<sup>15</sup> Moreover, the United States Court of Customs and Patent Appeals ("C.C.P.A."), by relying on dictionary definitions, determined that the common meaning of the term "shred" included "[t]o tear, *cut* or separate into small irregular or jagged strips or pieces; reduce to long and narrow fragments, as fibrous material . . . [t]o *cut* or tear into small pieces; also, to *cut* or tear pieces from." See W.R. Grace & Co. v. United States, 19 C.C.P.A. 326, 329 (1932).

The single shaft rotor of the subject size reduction machine, which has multi-point cutters, is positioned to work in conjunction with the counter knife to cut material.<sup>16</sup> Moreover, the material that is fed into the space between the rotor and the counter knife is cut into pieces by the cutters. The functions of the size reduction machine clearly fit the dictionary definition of shred, which is to cut material into smaller pieces, regardless of the fact that it is a single rotor machine.<sup>17</sup> Moreover, in NY N248108, dated December 10, 2013, CBP held that "[c]utting and tearing [were] not functions encompassed by subheading 8479.82.0080, HTSUS." In NY E85833, dated September

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<sup>12</sup> See Appeal, page 2.

<sup>13</sup> See <https://dictionary.cambridge.org/dictionary/english/shred> (last visited February 6, 2019).

<sup>14</sup> See <https://en.oxforddictionaries.com/definition/shred> (last visited February 6, 2019).

<sup>15</sup> See <https://www.merriam-webster.com/dictionary/shred> (last visited February 6, 2019).

<sup>16</sup> See Sturm, U.S. patent 6,837,453.

<sup>17</sup> See Davis et al., U.S. patent 9,144,803.

2, 1999, CBP also determined that shredding was not mentioned in the language of subheading 8479.82.00, nor was it synonymous with any of the terms of the subheading.

Vecoplan's argument that the size reduction machine either "crushes" or "grinds" is inconsistent with its patents that describe the technology and the product literature for the subject size reduction machine. Vecoplan product literature indicates that the protestant has a patent pending that uses a "SureCut™ Cutting System."<sup>18</sup> The SureCut™ Cutting System is described as having a "[c]lose tolerance knife gap for precision cutting action", "[a]uxiliary 'nip' cutters cut strands against bed knife to prevent wrapping", "[h]ard-faced cutter mount for longer wear", and a "[w]edge bed knife for improved cutting angle".<sup>19</sup> According to protestant's product literature, the SureCut™ Cutting System is used in models VAZ 1600 S, VAZ 1600 S XL, VAZ 1600 M, and VAZ 1600 M XL of the subject size reduction machine.<sup>20</sup> Moreover, product literature for the VAZ 1800 model notes that the product contains "4-way, indexable cutting inserts" and a [h]igh output 'torsion point' cutting rotor."<sup>21</sup>

While we acknowledge that the protestant maintains that the term "shredding," is just used for marketing purposes and to avoid confusion in the plastics industry,<sup>22</sup> the purpose of the subject size reduction machine is to reduce material into smaller sizes by a shredding or cutting action. Moreover, the size reduction machine works on a variety of materials, including wood, paper, and textile fabrics<sup>23</sup> and there is no evidence to support that the subject size reduction machine incorporates any features that limits its use to a particular type of material.

Finally, and as we stated in our original decision, while the subject size reduction machines does have a screening functionality, such a function is subsidiary to the operation of cutting the materials passing through them. The fact that screening only occurs after the material has been cut by the rotor and counter knife indicates that screening is not the primary function of the size reduction machine. Therefore, the size reduction machine is not a "screening" machine of subheading 8479.82.00, HTSUS.

For all the aforementioned reasons, we hereby affirm HQ H289652. Accordingly, the subject size reduction machine remains classified in subheading 8479.89.94, HTSUS, which provides, in relevant part, for: "Machines and mechanical appliances

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<sup>18</sup> See [https://www.vecoplanllc.com/downloads/dl/file/id/124/.../film\\_fiber\\_shredders.pdf](https://www.vecoplanllc.com/downloads/dl/file/id/124/.../film_fiber_shredders.pdf) (last visited February 6, 2019).

<sup>19</sup> Id. at 3.

<sup>20</sup> Id. at 4.

<sup>21</sup> See <https://www.vecoplanllc.com/vaz-1800-rotary-shredder> (last visited February 6, 2019).

<sup>22</sup> See Appeal Supplement, pages 4-6.

<sup>23</sup> See <https://www.vecoplanllc.com/vaz-1800-rotary-shredder/> and <https://vecoplan.com/products/shredding/single-shaft-shredders/vaz-medium-duty-series/vaz-1600/> (last visited February 6, 2019).

having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Other.”

Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division

HQ H300872

September 30, 2019

**CLA-2 OT:RR:CTF:EMAIN H300872 NVF**

**CATEGORY:** Classification

**TARIFF NO.:** 8526.91.11

Michael K. Tomenga  
Neville Peterson LLP  
One Exchange Plaza  
55 Broadway, Suite 2602  
New York, New York 10006

**RE:** Tariff classification of Globalstar SPOT X® and GEN3® personal locator beacons from China.

Dear Mr. Tomenga:

This is in response to your letter of September 17, 2018, submitted on behalf of Globalstar Inc. (“Globalstar”), requesting a prospective ruling (“ruling request”) as to the classification of the SPOT GEN3® (“GEN3”) and SPOT X® (“SPOT X”) personal locator beacons under the Harmonized Tariff Schedule of the United States (“HTSUS”). In reaching the below determination, we have considered information presented in your September 17, 2018 letter (hereinafter “ruling request”), public information from the Globalstar website, and information presented during the conference between your firm and CBP.

**FACTS:**

The GEN3 is a small, square device that has a GPS receiver and transmitter and a few buttons. It is intended for use by people when they travel to remote, rugged locations without cellular phone service. The primary feature of the GEN3 is automatic, motion-activated tracking which can be monitored by contacts. The GEN3 has various other location-related functions: it can send a pre-written check in message with GPS location to contacts; if the SOS button is pushed, it will send an emergency distress signal and GPS information to local response teams; and the user can push the help button to send a non-emergency assistance signal to contacts along with GPS information if the user needs assistance.

The SPOT X is rectangular handheld device that has the same functions as the GEN 3, with the addition of a screen and QWERTY keyboard and additional features. Like the GEN 3, the SPOT X is intended for use by people travelling in rugged, remote locations. The SPOT X tracks the user's GPS location and sends the GPS location data to contacts or local authorities accompanied by different preset messages, depending on the option selected by the user. In addition to motion-activated automatic tracking and SOS and non-emergency alert buttons, the SPOT X can send and receive SMS messages, update social media pages, and contains an electronic compass and altimeter.

In your ruling request, you assert that the GEN3 and SPOT X are classified under subheading 8517.62.0050, HTSUS, as other apparatus for the transmission of voice, images, or other data. As justification for your position, you state that they are composite devices which transmit and receive telemetric signals and therefore are communication devices. You also state that "the wireless transceiver in the asset tracking devices enables the user to fully access all of [their] functionality" and therefore provides their essential character. Finally, you contend that the Globalstar devices are analogous to personal fitness devices classified in HQ H279898 (Apr. 5, 2017) (Fitbit workout device), HQ H260060 (July 14, 2015) (Apple watch), H257947 (July 14, 2015) (Samsung Gear LiveAndroid wearable smart device), HQ H273382 (Jan. 3, 2017) (Garmin VivoActive and VivoSmart), and HQ H265035 (Jan. 19. 2016) (Microsoft Band fitness tracker).

## **ISSUE:**

Whether the GEN3 and SPOT X are composite goods classified as other apparatus for the transmission or reception of voice, images or other data in subheading 8517.62.0090, HTSUS, or as other radio navigational aid apparatus in subheading 8526.91.1140, HTSUS.

## **LAW AND ANALYSIS:**

Classification of goods under the HTSUS is governed by the General Rules of Interpretation (GRI). GRI 1 provides that classification shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. Goods that are *prima facie* classifiable under two or more headings are classifiable in accordance with GRI 3.

GRI 3(a) states that the heading that provides the most specific description shall be preferred to headings providing a more general description. However, when two or more headings refer to only part of the items in a composite good or set, those headings are to be regarded as equally specific in relation to the goods, even if one of the gives a more complete or precise description of the good. As such, they are regarded as equally specific and classification of the composite good or set is to be determined by GRI 3(b) or GRI 3(c).

GRI 3(b) states that composite goods or sets which cannot be classified by reference to GRI 3(a) are to be classified as if they consisted of the component that gives them their essential character.

GPS receivers are not specifically provided for in the HTSUS. However, CBP has consistently classified GPS receivers in subheading 8526.91, HTSUS, which provides for radio navigational aid apparatus. *See, e.g.*, HQ H014564 (Dec. 6, 2017) (Holux GPS Receiver Set), N26635 (July 16, 2015) (LugTrack GPS tracking device for luggage), N267981 (Sep. 21, 2015) (Crane bluetooth GPS watch), and HQ 955510 (Sep. 15, 1994) (GPS cards for PC).

The Harmonized Commodity Description and Coding System Explanatory Notes (“ENs”) constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. *See* T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

EN 85.26(1) states, in pertinent part, that heading 8526, HTSUS “also includes global positioning system (GPS) receivers.”

Therefore, the HTSUS headings under consideration are as follows:

8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof

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8526 Radar apparatus, radio navigational aid apparatus and radio remote control apparatus:

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The GEN3 and SPOT X are devices that determine their GPS location using the internal GPS receiver and then transmit GPS location data to contacts who are tracking the user’s location. GPS location data can be accompanied by a preset message, and in the case of the SPOT X, satellite network text messages can be sent to and received from contacts using the screen and keyboard. The devices are therefore composite goods pursuant to GRI 3 consisting of, among others, a GPS receiver and a transmitter which are fitted together, and must be classified as if they consisted of the component which imparts their essential character. It is well-established that a determination as to “essential character” is driven by the particular facts of the case at hand. *See, e.g.*, *Alcan Food Packaging (Shelbyville) v. United States*, 771 F.3d 1364, 1366 (Fed. Cir. 2014) (“The ‘essential character’ of merchandise is a fact-intensive issue.”); *see also* EN VIII to GRI 3(b) (“The factor which determines essential character will vary as between different kinds of goods.”). That said, essential character has traditionally been understood as “that which is indispensable to the structure, core or condition of the article, *i.e.*, what it is” and as “the most outstanding and distinctive characteristic of the article.” *Structural Indus. v. United States*, 360 F. Supp. 2d 1330, 1336 (Ct. Int’l Trade 2005).

In the present case, the GEN3 is a satellite device which allows users to send their GPS location and preset messages to contacts. It can send location automatically, or if the check-in button is selected, it will send location data accompanied by a preset message, such as, “I am fine,” to contacts. It also has an emergency response button which, when pushed, sends an alert to local authorities and the user’s GPS location. The primary function of the device is to track the user’s GPS location when in remote locations that do not have cellular data service. In order to perform its intended function, the GEN3 must be able to discern its location via a GPS receiver and transmit the GPS location data to contacts. Without the ability to determine its location via GPS receiver, the GEN3 does not have any GPS coordinates to transmit. This renders the motion-activated tracking, emergency signal, and non-emergency signal function useless as contacts and local authorities will be unable to track or locate the user, or provide assistance or rescue if requested.

The above analysis also applies to the SPOT X, which similarly functions as a GPS location tracking device. The SPOT X must be able to discern its location via GPS receiver in order to transmit that location via transmitter. Without the GPS receiver, the motion-activated tracking, emergency signal, and non-emergency signal cannot function as intended. While the SPOT X is capable of receiving and sending text messages from contacts or local authorities, the presence of a custom messaging feature does not outweigh the primary GPS tracking function of the SPOT X. Indeed, the service plans offered by Globalstar support this position. All service plans currently offered for the SPOT X include unlimited SOS requests, check in messages, predefined messages, and unlimited tracking, all of which are forms of GPS location tracking. By contrast, custom messages are limited in the majority of the plans offered and the user is charged for every message sent or received beyond the preset limit.<sup>1</sup>

In light of the foregoing, we find that the essential character of the GEN3 and SPOT X is imparted by the GPS receiver. Thus, pursuant to GRI 3(b), the GEN3 and SPOT X are classified under heading 8526, HTSUS, which provides for “radar apparatus, radio navigational aid apparatus and radio remote control apparatus.” This is consistent with our classification decision in N26635, which classified a similar GPS tracking device for luggage under heading 8526, HTSUS. See NY N26635 (Jul. 16, 2015).

In support of your argument that the GEN3 and SPOT X are classified under heading 8517, HTSUS, you assert that the “wireless transceiver in the asset tracking devices enables the user to fully access all of the asset tracker devices functionality and thus provides the ‘essential character’ of the devices.” You assert that the subject devices are analogous to the devices in HQ H279898 (Fitbit workout device), HQ 260060 (Apple watch), H257947 (Samsung Gear LiveAndroid wearable smart device), HQ H273382 (Garmin VivoActive and VivoSmart), and HQ H265035 (Microsoft Band fitness tracker).

The fitness trackers in the abovementioned CBP rulings are not analogous to the GEN3 and SPOT X because they do not function in the same manner. The fitness trackers are wearable

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<sup>1</sup> Compare the Basic, Advanced, Flex Basic, and Flex Advanced service plans with the more expensive Unlimited and Flex Unlimited plans. <https://www.globalstar.com/en-us/products/spot/SPOTX> last visited February 28, 2019.

personal fitness trackers/monitors designed to connect via Bluetooth to the user's smartphone or other device and which are used to convey and/or control information collected either by the fitness tracker or the portable device to which they are connected. This information includes, but is not limited to: tracking heart rate (Fitbit, Apple watch, Samsung Gear, Microsoft Band), tracking time slept (Fitbit, Microsoft Band), displaying the phone number of incoming calls or text messages (Fitbit, Apple watch, Samsung Gear, Microsoft Band), accessing contacts on a smartphone (Samsung Gear, Fitbit), and controlling a television (Apple watch). Notably, the fitness trackers cannot perform the full range of functions for which they are marketed until they are paired via Bluetooth to a smartphone or other portable device. HQ H279898 at 7, HQ H260060 at 2, H257947 at 6, HQ H273382 at 5, HQ H265035 at 5.

By contrast, the GEN3 and SPOT X cannot be paired with a smartphone via Bluetooth and indeed, do not need to do so in order to perform their full range of tracking and communication functions. They are capable of independently accessing GPS location data and transmitting such data, along with messages, without being connected to another device. Additionally, the instant devices do not function as controllers in the same manner as the personal fitness trackers. Therefore, the GEN3 and SPOT X are not analogous to personal fitness trackers.

## **HOLDING:**

By operation of GRI 3(b), the GEN3 and SPOT X are classified in heading 8526.91.00, HTSUS. The column one, general rate of duty for merchandise of subheading 8526.91.00, HTSUS is free.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 Fed. Reg. 28710), August 16, 2018 (83 Fed. Reg. 40823), and September 21, 2018 (83 Fed. Reg. 47974). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8526.91.00, HTSUS, unless specifically excluded, are subject to the additional 25 percent *ad valorem* rate of duty. At the time of

importation, you must report the Chapter 99 subheading, *i.e.*, 9903.88.01, in addition to subheading 8526.91.00, HTSUS, listed above.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Gregory Connor, Chief  
Electronics, Machinery, Automotive, and  
International Nomenclature Branch.

HQ H300877

May 31, 2019

**CLA-2 OT:RR:CTF:EMAIN HQ H300877 TPB**

**CATEGORY:** Classification

**TARIFF NO.:** 8471.49.0000; 8518.30.2000

Deborah B. Stern  
Sandler, Travis & Rosenberg, P.A.  
1000 NW 57<sup>th</sup> Court, Suite 600  
Miami, FL 33126

**Re:** Binding ruling request on the tariff classification of certain ADP systems

Dear Ms. Stern:

The following is our decision to your August 22, 2018 request for a binding ruling on the classification of certain automatic processing machine ("ADP") systems, filed on behalf of your client HP Inc. ("HPI"), under the Harmonized Tariff Schedule of the United States (HTSUS).

**FACTS:**

According to your submission, HPI intends to import ADP systems consisting of the central processing unit ("CPU"), bundled with: (1) a "QWERTY" keyboard or an optical mouse; and (2) either one of two over-the-ear headsets, i.e., the HP USB Headset 500 ("USB500") or the HP H2800 Black Headset ("H2800").

The USB500 (<https://store.hp.com/us/en/pdp/hp-usb-headset-500>) is an over-the-ear USB Audio Class-compliant headset with integrated microphone which connects to a PC through a USB-A connection. The headset permits the user to take calls, listen to music, and command Microsoft's Cortana to control the PC. Specifically, there is a "tap to launch Cortana" button on the volume control which issues a Win+C USB KB command and the PC's operating system responds accordingly. In addition, this device incorporates an analog-to-digital converter and USB sound card so that the device bypasses such components present in the PC when connected.



USB500

The H2800 is an over-the-ear headset which provides an in-line microphone with easy to use controls to receive phone calls and control volume, while music is automatically muted. It can be connected to a personal computer (PC), smartphone, tablet computer, MP3 player or video game console through a 3.5mm mini jack.



H2800

### **ISSUE:**

Whether the CPU, keyboard or mouse and headset comprise an “ADP system” classifiable in subheading 8471.49.0000, HTSUS.

### **LAW AND ANALYSIS:**

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (GRIs) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all purposes.

General Rule of Interpretation 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the

basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The Harmonized Commodity Description and Coding System Explanatory Notes ("ENs") constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The provision at issue is subheading 8471.49.0000, HTSUS, which provides for "Automatic data processing machines and units thereof....: Other Automatic data processing machines: Other, entered in the form of systems." The pertinent parts of Note 5 to Chapter 84 read:

(B) Automatic data processing machines may be in the form of systems consisting of a variable number of separate units.

(C) Subject to paragraphs (D) and (E) below, a unit is to be regarded as being part of an automatic data processing system if it meets all of the following conditions:

- i. It is of a kind solely or principally used in an automatic data processing system;
- ii. It is connectable to the central processing unit either directly or through one or more other units; and
- iii. It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

Separately presented units of an automatic data processing machine are to be classified heading 8471.

Further, Chapter 84 Subheading Note 2 provides:

For the purposes of subheading 8471.49, the term "systems" means automatic data processing machines whose units satisfy the conditions laid down in note 5 (C) to Chapter 84 and which comprise at least a central processing unit, one input unit (for example, a keyboard or a scanner), and one output unit (for example, a visual display unit or a printer).

In addition, the EN for heading 84.71 indicates that a complete automatic data processing system must comprise, at least:

- 1) A central processing unit which generally incorporates the main storage, the arithmetical and logical elements and the control elements; in some cases, however, these elements may be in the form of separate units.
- 2) An input unit which receives input data and converts them into signals which can be processed by the machine.
- 3) An output unit which converts the signals provided by the machine into an intelligible form (printed text, graphs, displays, etc.) or into coded data for further use (processing, control, etc.).

That EN further states that two of these units (input and output units, for example) may be combined into a single unit.

Chapter 84, Note 5 (D) identifies certain units that must be classified in their own provisions when separately presented. It states, in relevant part:

Heading 8471 does not cover the following when presented separately, even if they meet all of the conditions set forth in Note 5 (C) above :

- i. Printers, copying machines, facsimile machines, whether or not combined;
- ii. Apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network);
- iii. Loudspeakers and microphones...

In addition, the EN to heading 8471 clarifies that:

A complete automatic data processing system is classified in this heading, even though one or more units may be classified elsewhere when presented separately (see Part (B) Separately presented units, below).

Finally, the EN to heading 8471, Part (B) Separately presented units, states that:

Subject to the provisions of Notes 5 (D) and (E) to this Chapter, this heading also covers separately presented constituent units of automatic data processing systems. These may be in the form of units having a separate housing or in the form of units not having a separate housing and designed to be inserted into a machine (e.g., insertion onto the main board of a central processing unit). Constituent units are those defined in Part (A) above and in the following paragraphs, as being parts of a complete system.

An apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- a) Performs a data processing function;
- b) Meets the following criteria set out in Note 5 (C) to this Chapter
- c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter.

...

If the unit performs a specific function other than data processing, it is to be classified in the heading appropriate to that function or, failing that, in a residual heading (see Note 5 (E) to this Chapter). If an apparatus does not meet the criteria set out in Note 5 (C) to this Chapter, or is not performing a data processing function, it is to be classified according to its characteristics by application of General Interpretative Rule 1, if necessary in combination with General Interpretative Rule 3 (a).

With regard to the matter at issue, we note that the claimed "system" will include a CPU, a keyboard or a mouse and a headset. The CPU satisfies the first requirement of a complete ADP system as set out in subheading Note 2 to Chapter 84 and the EN to heading 8471. Additionally, the inclusion of either a keyboard or a mouse would satisfy the "input" requirement of a complete ADP system according to the aforementioned EN, as both of these devices are used as examples of input units.

With regard to the output unit required to form a complete ADP system as set out in the EN, it is your contention that either HP headset would satisfy this requirement. With regard to the USB500, you contend that the headset is solely used with an ADP machine, directly connectable to the CPU via a USB-A port. As such, it would fulfill the first two requirements of Note 5(C) to Chapter 84. You further contend that the USB500 headset outputs sound signals from a PC. It receives and processes sound signals from a software program, an audio or A/V file, streaming audio or video, telecommunications (e.g. a VOIP call) and the like. With a sound card and analog-to-digital converter, connection of the headset bypasses the internal conversion so the device itself can convert the signals to analog sound waves for the user to hear. As such, it fulfills the third requirement of Note 5(C) to Chapter 84. Therefore, with regard to the USB500 headset, this office agrees that it is an output unit and its inclusion with a CPU and keyboard or mouse would form a complete ADP system of subheading 8471.49.0000.

With regard to the H2800 headset, you argue that it also serves as an input and output unit, using a microphone for communicating voice commands to the PC with the appropriate software. You indicate that it delivers voice and audio signals to the user, thus fulfilling the third requirement of Note 5(C) to Chapter 84. You also contend that it is directly connectable to the CPU through the 3.5 mm jack connection, fulfilling the second requirement of Note 5(C) to Chapter 84. Finally, you argue that, while not

limited to use solely with an ADP machine, it is principally used with one. Specifically, you note that while this device can connect to other devices, such as a video game console, it is your view that it is principally used with an ADP machine, being branded and sold by HPI - a company specializing in computers - is designed and marketed for use in computer-based communications, having a special feature to pause music the user may be listening too when a call is incoming.

On this point we disagree. There is no indication that the product at issue is of a kind used principally used with an ADP system as required by Note 5(C) and research suggests that the product can be used with equal effectiveness for a number of electronic devices. Although the product is branded by HPI, the link provided with your submission states in the overview of the product, "Compatible with most computers, tablets, smartphones and MP3 players, with easy to adjust on-ear controls." The built-in microphone could be utilized in almost any of the foregoing devices to provide additional functionality. As such, we do not find that the H2800 is principally used by an ADP system. As it does not fulfill the first requirement of Note 5(C) to Chapter 84, this unit cannot be regarded as being part of an ADP system and should be classified in its heading 85.18, subheading 8518.30.2000, HTSUS, which provides for "... headphones and earphones, whether or not combined with a microphone...". Because the shipments containing these devices do not include an output unit, the CPU and keyboard or mouse do not constitute an ADP system of subheading 8471.49.0000, HTSUS.

#### **HOLDING:**

By application of GIRs 1 and 6, the combination of a CPU, keyboard or mouse and the USB500 headset form a complete automatic data processing system of heading 8471, subheading 8471.49.0000. The 2019 column one, general rate of duty for merchandise of this subheading is free.

By application of GIRs 1 and 6, the H2800 headset is classified under heading 8518, subheading 8518.30.20000. The 2019 column one, general rate of duty for merchandise of this subheading is 1.2% ad valorem. Consequentially, the CPU, keyboard or mouse should be classified in its respective heading, as the lack of an output unit fails to establish a complete automatic data processing system of subheading 8471.49.0000.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

Sincerely,

Gregory Connor, Chief  
Electronics, Machinery, Automotive, and  
International Nomenclature Branch

**HQ H301481**

June 14, 2019

**OT:RR:CTF:VS H301481 JK**

**CATEGORY:** Classification

Andrew C. Sevey  
Moog Inc.  
1995 NC HWY 141  
Murphy, NC 28906

RE: Eligibility of rotor assembly for duty-free tariff treatment under the Nairobi Protocol; 9817.00.96; specially designed or adapted for the handicapped; parts

Dear Mr. Sevey:

This is in response to your letter dated September 24, 2018, on behalf of Moog, Inc. (Moog), which requests a binding ruling regarding the eligibility of an imported rotor assembly for duty-free treatment under subheading 9817.00.96, Harmonized Tariff Schedule of the United States (HTSUS).

**FACTS:**

The article under consideration is a rotor assembly. You state that this rotor assembly is specially designed for an electric motor that powers the compressor of a portable oxygen concentrator (POC), a medical device that supplies supplementary oxygen to its users. Moog specially produces this rotor assembly for Inogen, a manufacturer and seller of POCs. Inogen custom orders this rotor assembly from Moog with specific requirements for the design and manufacture of the rotor assembly for use with its POCs. The rotor assembly is manufactured in China and imported into the United States for processing prior to being used in the POC.

As imported, the instant rotor assembly has certain physical features that differentiate it from Moog's standard catalog rotors. While Moog's standard catalog rotors are designed with a front shaft extension, the instant rotor features an additional rear shaft extension. The dual-shaft design of the instant rotor allows it to maintain symmetry, which is required to operate the dual-piston function of the compressor in the POC. The front shaft extension operates one piston in the compressor, while the rear shaft extension operates the other. The tight tolerances and dimensions of the shaft extensions are specific to this application.

In addition, you state that the shaft material used in the rotor assembly is unique to its design. For the instant rotor, precipitation-hardening stainless steel is used for the shaft material, whereas standard rotors use martensitic stainless steel. Precipitation

hardening is a process by which the impurities in the crystalline metal are rectified by application of a chemical solution and specific heating regime. The benefit of this process is increased durability or wear resistance, the ability to undergo high tensile and yield stress, and improved machinability. The enhanced machinability of the precipitation-hardening steel allows the shaft to meet the tight tolerances required for its use in a POC. The improved characteristics of the metal provide the added quality and reliability required for use in a U.S. Food and Drug Administration (FDA) regulated medical device.

As the rotor assembly at issue must be used in an oxygen-supplying medical device, Inogen requires higher quality components and processes. Unlike standard rotor assemblies, the instant rotor assembly uses primer at the bond joint of the rotor core to the shaft. When being used in a POC, a slip of the rotor core on the shaft would result in a non-functioning motor and compressor, causing a loss of concentrated oxygen to the user. This risk is mitigated by specially machined glue grooves and primer where the shaft and rotor core meet. This results in a stronger bond between the components and a lower likelihood of failure.

Additionally, the instant rotor assembly uses a high energy, neodymium rare earth magnet to produce the torque and efficiency required for use in a POC. In comparison, you state that lower energy magnets such as ceramic and samarium cobalt would not be able to meet the power and efficiency requirements of a POC. Furthermore, you state that the magnet is customized specifically to fit within the diameter and length constraints of the POC's compressor and is finished with an epoxy resin coating, which is not a standard offering.

Finally, Inogen requires a special marking on the magnet's outer diameter, which helps Inogen comply with FDA regulations for medical devices regarding purchase controls, identification and traceability. *See* 21 C.F.R. §§ 820.50, 820.60, and 820.65.

You provided pictures showing differences between Moog's standard catalog rotors and the instant rotor assembly, as well as pictures showing how the rotor assembly is incorporated into the POC. You provided a chart with a side-by-side comparison of the specifications of the instant rotor assembly with a standard catalog equivalent rotor. You also provided various engineering drawings and specification sheets of the rotor assembly, including a drawing from Inogen providing the special design for the rotor assembly. Finally, you provided copies of blanket purchase agreements between Inogen and Moog, and a statement issued by Inogen listing the design requirements of the rotor assembly supplied by Moog for use in Inogen's POCs.

In reaching our decision, we have considered additional information which was submitted by you on April 26 and May 9, 2019.

**ISSUE:**

Whether the rotor assembly is eligible for duty-free treatment under subheading 9817.00.96, HTSUS, as a part of an article specially designed or adapted for the handicapped.

**LAW AND ANALYSIS:**

Congress passed the Educational, Scientific, and Cultural Materials Importation Act of 1982, Pub. L. No. 97-446, 96 Stat. 2329, 2346 (1983), and the Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, 102 Stat. 1107 (1988), to implement the Nairobi Protocol to the Florence Agreement on the Importation of Educational, Scientific and Cultural Materials (“Nairobi Protocol”), an international agreement intended to provide “duty free treatment to articles for the use or benefit of the physically or mentally handicapped persons, in addition to articles for the blind.” *See also U.S. Customs Serv. Implementation of the Duty-Free Provisions of the Nairobi Protocol, Annex E, to the Florence Agreement*, T.D. 92-77, 26 Cust. B. & Dec. 240, 241 (1992) (“*Implementation of the Nairobi Protocol*”). Presidential Proclamation 5978 and Section 1121 of the Omnibus Trade and Competitiveness Act of 1988, provided for the implementation of the Nairobi Protocol into subheadings 9817.00.92, 9817.00.94, and 9817.00.96, HTSUS.<sup>1</sup> Therefore, this legislation eliminated duties for products covered by subheading 9817.00.96, HTSUS, which provides for:

articles specially designed or adapted for the use or benefit of the blind or other physically or mentally handicapped persons; parts and accessories (except parts and accessories of braces and artificial limb prosthetics) that are specially designed or adapted for use in the foregoing articles . . . Other.

*See* subheading 9817.00.96, HTSUS; *see also Sigvaris, Inc. v. United States*, 227 F. Supp. 3d 1327, 1335 (Ct. Int'l Trade 2017). Subheading 9817.00.96 excludes “(i) articles for acute or transient disability; (ii) spectacles, dentures, and cosmetic articles for individuals not substantially disabled; (iii) therapeutic and diagnostic articles; or, (iv) medicine or drugs.” U.S. Note 4(b), Subchapter XVII, Chapter 98, HTSUS.

Accordingly, eligibility within subheading 9817.00.96, HTSUS, depends on whether the article in question is “specially designed or adapted for the use or benefit of the blind or physically and mentally handicapped persons,” and whether it falls within any of the enumerated exclusions. *See* subheading 9817.00.96, HTSUS; U.S. Note 4(b), Subchapter XVII, Chapter 98, HTSUS. Note 4(a) to Chapter 98, HTSUS, provides:

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<sup>1</sup> By Presidential Proclamation 6821 of September 12, 1995, 60 *Federal Register* 47663 (published on September 13, 1995), the superior text preceding subheading 9817.00.92, HTSUS (and applicable to subheadings 9817.00.92, 9817.00.94, and 9817.00.96, HTSUS), was modified to include parts and accessories for the articles of the subheading.

- (a) For purposes of subheadings 9817.00.92, 9817.00.94 and 9817.00.96, the term “blind or other physically or mentally handicapped persons” includes any person suffering from a permanent or chronic physical or mental impairment which substantially limits one or more major life activities, such as caring for one’s self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, or working.

U.S. Note 4(a), Subchapter XVII, Chapter 98, HTSUS. This list of exemplar activities indicates that the term “handicapped persons” is to be liberally construed so as to encompass a wide range of conditions, provided the condition substantially interferes with a person’s ability to perform an essential daily task. *See Sigvaris*, 227 F. Supp. 3d at 1335. While the HTSUS and subchapter notes do not provide a proper definition of “substantial” limitation, the inclusion of the word “substantially” denotes that the limitation must be “considerable in amount” or “to a large degree.” *Id.* at 1335. (citing Webster’s Third New International Dictionary).

In the Court of Appeals for the Federal Circuit’s decision in *Sigvaris, Inc. v. United States*, 899 F.3d 1308 (Fed. Cir. 2018), the court found that the Court of International Trade reached the correct conclusion in finding the merchandise at issue therein, compression stockings, not eligible for subheading 9817.00.96, HTSUS treatment, but the court disagreed with the lower court’s analysis. The court found that the Court of International Trade looked to the condition or disorder and whether it is a handicap. The court stated:

The plain language of the heading focuses the inquiry on the “persons” for whose use and benefit the articles are “specially designed,” and not on any disorder that may incidentally afflict persons who use the subject merchandise . . . Instead, we must ask first, “for whose, if anyone’s, use and benefit is the article specially designed,” and then, “are those persons physically handicapped?”

*Id.* at 1314.

The language of subheading 9817.00.96, HTSUS, states that the provision provides for “articles specially designed or adapted” for the use or benefit of the physically handicapped. The design and construction of an article may be indicative of whether it is specially designed or adapted for the use or benefit of the handicapped. The HTSUS does not establish a clear definition of what constitutes “specially designed or adapted for the use or benefit” of handicapped persons. In the absence of a clear definition, the Court of the International Trade stated that it may rely upon its own understanding of the terms or consult dictionaries and other reliable information. *See Danze, Inc. v. United States*, Slip Op. 18-69 (Ct. Int’l Trade 2018). Moreover, in

analyzing this same provision in *Sigvaris v. United States*, the Court of International Trade construed these operative words as follows:

The term “specially” is synonymous with “particularly,” which is defined as “to an extent greater than in other cases or towards others.” . . . The dictionary definition for “designed” is something that is “done, performed, or made with purpose and intent often despite an appearance of being accidental, spontaneous, or natural.”

See *Sigvaris*, 227 F. Supp. 3d at 1336 (citing Webster’s Third New International Dictionary). See also *Sigvaris, Inc. v. United States*, 899 F.3d 1308 (Fed. Cir. 2018), wherein the court cited the definitions relied upon by the Court of International Trade in *Sigvaris*, in concluding that “articles specially designed for handicapped persons must be made with the specific purpose and intent to be used by or benefit handicapped persons rather than the general public.” See *Sigvaris*, 899 F.3d at 1314. The Court of Appeals for the Federal Circuit refined this requirement which it found to be incomplete. The court concluded that:

to be “specially designed,” the subject merchandise must be intended for the use or benefit of a specific class of persons to an extent greater than for the use or benefit of others.

*Id.*

CBP has recognized several factors to be utilized and weighed against each other on a case-by-case basis when determining whether a particular product is “specially designed or adapted” for the benefit or use of handicapped persons. See *Implementation of the Nairobi Protocol*, 26 Cust. Bull. & Dec. at 243-244. These factors include: (1) the physical properties of the article itself (*i.e.*, whether the article is easily distinguishable by properties of the design, form, and the corresponding use specific to this unique design, from articles useful to non-handicapped persons); (2) whether any characteristics are present that create a substantial probability of use by the chronically handicapped so that the article is easily distinguishable from articles useful to the general public and any use thereof by the general public is so improbable that it would be fugitive; (3) whether articles are imported by manufacturers or distributors recognized or proven to be involved in this class or kind of articles for the handicapped; (4) whether the articles are sold in specialty stores which serve handicapped individuals; and, (5) whether the condition of the articles at the time of importation indicates that these articles are for the handicapped. See also *Danze, Inc. v. United States*, Slip Op. 18-69 (Ct. Int’l Trade 2018); *Sigvaris, Inc. v. United States*, 227 F. Supp. 3d 1327 (Ct. Int’l Trade 2017), *aff’d*, 899 F.3d 1308 (Fed. Cir. 2018). In *Sigvaris*, the Court of Appeals for the Federal Circuit found that “[t]hese factors aid in assessing whether the subject merchandise is intended for the use or benefit of a specific class of persons to a

greater extent than for the use or benefit of others.” *Sigvaris*, 899 F.3d. 1315. The court adopted these factors into its analysis.

In this case, the merchandise at issue is a rotor assembly that is said to be a specially designed component part of a portable oxygen concentrator. We note that subheading 9817.00.96, HTSUS, provides duty-free treatment not only to articles that are specifically designed or adapted for the use or benefit of handicapped persons, but also for “parts and accessories...that are specially designed or adapted for use in the foregoing articles.” *See also Starkey Laboratories, Inc. v. United States*, 6 F. Supp. 2d 910 (Ct. Int’l Trade 1998) (imported parts of hearing aids were eligible for duty-free treatment under subheading 9817.00.96, HTSUS). Accordingly, to determine whether the rotor assembly is eligible for classification under subheading 9817.00.96, HTSUS, we must first determine if the POC for which it was designed is an article specially designed or adapted for the handicapped.

Following the court’s analysis in *Sigvaris*, 899 F.3d 1308 (Fed Cir. 2018), our first inquiry is determining for whose use and benefit the POC is “specially designed,” and whether such persons are physically handicapped. According to your submission, POCs are medical devices intended to provide supplemental oxygen to persons who require greater oxygen concentrations than provided in the levels of ambient air.<sup>2</sup> The provision of supplemental oxygen, also known as oxygen therapy, is a form of medical intervention that must be prescribed by a physician, who will order tests on a patient to determine if blood oxygen levels are low enough to recommend treatment.<sup>3</sup> Many insurance plans, including Medicare, will cover up to 80% of the cost of a POC if a patient has been prescribed oxygen therapy.<sup>4</sup>

Oxygen therapy can be delivered via a variety of methods and devices, including oxygen gas, liquid oxygen, oxygen concentrators or hyperbaric oxygen therapy.<sup>5</sup> Unlike compressed oxygen tanks which require refills or replacements when the supply of oxygen is depleted, oxygen concentrators operate by pulling oxygen out from the atmospheric air, and purifying and compressing the oxygen before delivering it to the user’s airways via nasal prongs (an oxygen cannula).<sup>6</sup> POCs work similarly to stationary oxygen concentrators but are smaller, lighter and able to run on battery power, enabling the user to travel with the device.<sup>7</sup> However, POCs may deliver a lower percentage of

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<sup>2</sup> Portable oxygen concentrator, [https://en.wikipedia.org/w/index.php?title=Portable\\_oxygen\\_concentrator&oldid=891172622](https://en.wikipedia.org/w/index.php?title=Portable_oxygen_concentrator&oldid=891172622) (last visited May 14, 2019). *See also* 21 C.F.R. § 868.5440(a) (defining a “portable oxygen generator” as “a device that is intended to release oxygen for respiratory therapy by means of either a chemical reaction or physical means (e.g., a molecular sieve).”)

<sup>3</sup> What is Oxygen Therapy (O<sub>2</sub> Therapy), <https://www.inogen.com/resources/oxygen-therapy-treatment/what-is-oxygen-therapy/> (last visited May 14, 2019).

<sup>4</sup> Portable Oxygen Concentrator Rental & Purchase Options, <https://www.inogen.com/oxygen-therapy/purchase-options/> (las visited May 14, 2019).

<sup>5</sup> See *supra* footnote 3.

<sup>6</sup> POC: Smarter Choice for Oxygen Therapy, <https://www.inogen.com/oxygen-therapy/portable-oxygen-concentrators-better-breathing/> (last visited May 14, 2019).

<sup>7</sup> *Id.*

pure oxygen than a larger stationary oxygen concentrator, and some deliver only a “pulse” of oxygen rather than a continuous flow.<sup>8</sup>

Because oxygen therapy must be prescribed by a physician, the purchase of oxygen therapy devices such as POCs must also be accompanied by a prescription. *See* 21 U.S.C. § 360ddd-1 (Regulation of medical gases). POCs are also regulated by the FDA as anesthesiology devices and are subject to Class II performance standards.<sup>9</sup> *See* 21 C.F.R. § 868.5440 (Portable oxygen generator). POCs are typically prescribed for patients who suffer from medical conditions such as chronic obstructive pulmonary disease (COPD), pneumonia, asthma, heart failure, sleep apnea, cystic fibrosis, or other chronic lung conditions or respiratory trauma that make it difficult for the patient to absorb the oxygen that he or she needs.<sup>10</sup> While oxygen therapy can be administered at home or under medical care, POCs in particular benefit patients who wish to maintain a level of mobility and independence with the help of portable oxygen therapy.<sup>11</sup> Some people only need oxygen therapy while participating in certain activities, like exercising or sleeping, while other people require it more regularly. In addition to enabling patients to live more active lives, oxygen therapy for more than 15 hours a day has been shown to increase life expectancy in some patients.<sup>12</sup> Other benefits of oxygen therapy may include improved exercise tolerance, mental alertness, sleep, mood, and stamina.<sup>13</sup>

Based on the evidence above, we find that POCs are specially designed or adapted for the use of benefit of a specific class of persons to a greater extent than others, *i.e.*, for persons who have difficulty breathing due to low oxygen blood levels. The physical properties of the POC and its characteristics indicate that it is used solely for the purpose of providing supplemental oxygen to this specific class of persons. Given the device’s clearly intended purpose, we consider the general public’s use of this device for any other purpose to be so improbable as to be fugitive. Further, the POC is an FDA-regulated medical device for which its benefits to persons suffering from chronic respiratory conditions such as COPD is supported in the medical literature. Additionally, Inogen and other manufacturers of POCs specifically market and sell or rent the device for this specific class of persons via home medical equipment providers

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<sup>8</sup> Oxygen Therapy, American Thoracic Society, available at <http://www.thoracic.org/patients/patient-resources/resources/oxygen-therapy.pdf> (last visited May 14, 2019).

<sup>9</sup> “Special controls are regulatory requirements for class II devices. FDA classifies into class II devices for which general controls alone are insufficient to provide reasonable assurance of the safety and effectiveness of the device, and for which there is sufficient information to establish special controls to provide such assurance.” Regulatory Controls, <https://www.fda.gov/medical-devices/overview-device-regulation/regulatory-controls> (last visited May 14, 2019).

<sup>10</sup> Oxygen Therapy, <https://medlineplus.gov/oxygentherapy.html> (last visited May 14, 2019).

<sup>11</sup> *See supra* footnote 3.

<sup>12</sup> Stoller, James K., MD, MS, FCCP et. al., *Oxygen Therapy for Patients With COPD: Current Evidence and the Long-Term Oxygen Treatment Trial*, 138 Chest 179 (2010).

<sup>13</sup> Portable Oxygen Benefits, <https://www.inogen.com/oxygen-therapy/portable-oxygen-benefits/> (last visited May 14, 2019).

and distributors, or their own specialty websites.<sup>14</sup> Inogen also explicitly states under its terms and conditions that orders for its POCs require a prescription.<sup>15</sup>

Moreover, we conclude that the specific class of persons for which the POC is intended is physically handicapped. As noted earlier, persons who have low oxygen blood levels typically suffer from chronic lung conditions or respiratory trauma that make it difficult for the patient to absorb a sufficient amount of oxygen from the air into his or her lungs, substantially limiting his or her ability to breathe. Such persons can suffer from a variety of symptoms, such as shortness of breath, fatigue, and rapid breathing and heart rate, wheezing, coughing, sweating, confusion and changes in mood, behavior or skin color.<sup>16</sup> Based on these symptoms, it is reasonable to conclude that having insufficient oxygen blood levels is a physical impairment that would substantially limit one or more major life activities, including a person's ability to breathe, which is identified specifically by U.S. Note 4(a) as an example of a major life activity. The evidence also suggests that persons who have difficulty breathing due to low oxygen blood levels often suffer from impairments that are known to be permanent or chronic in nature, such as COPD<sup>17</sup>, asthma<sup>18</sup>, heart failure, and cystic fibrosis<sup>19</sup>. While oxygen therapy can be administered for a shorter period of time in a clinical setting and for more acute or transient conditions such as pneumonia or sleep apnea, patients who suffer from permanent or chronic breathing impairments and require long-term oxygen therapy may benefit from POCs especially, which enables them to receive supplemental oxygen even while traveling.<sup>20</sup>

None of the exclusions listed under U.S. Note 4(b) apply to the POC. Because the POC is intended for persons who have difficulty breathing due to low oxygen levels, and such persons typically suffer from permanent or chronic conditions, we find that the POC is not an article for acute or transient disability. We also do not consider the POC to be a therapeutic or diagnostic article. It does not diagnosis a patient's condition; a physician must do so before a POC can be prescribed. While a POC can provide a variety of health benefits to a patient and even in some cases extend his or her life with regular use, it cannot be considered a therapeutic article as it is not used to cure or heal the patient's underlying condition. See *Travenol Laboratories, Inc. v. United States*, 813 F. Supp. 840 (1993) (holding that whether an article cures or heals is the standard with regard to the tariff meaning of the term "therapeutic"). As none of the other

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<sup>14</sup> See, e.g., <https://www.oxygenconcentratorstore.com/portable-oxygen-concentrators/>, <https://traveloxygen.com>, <https://www.inogen.com>.

<sup>15</sup> Terms and Conditions, <https://www.inogen.com/terms-conditions/> (last visited May 14, 2019).

<sup>16</sup> See *supra* footnote 3.

<sup>17</sup> "COPD, or chronic obstructive pulmonary disease, is a progressive disease that makes it hard to breathe." COPD, <https://www.nhlbi.nih.gov/health-topics/copd> (last visited May 14, 2019).

<sup>18</sup> "Asthma is a chronic, or long-term, condition that intermittently inflames and narrows the airways in the lungs." Asthma, <https://www.nhlbi.nih.gov/health-topics/asthma> (last visited May 14, 2019).

<sup>19</sup> "Cystic fibrosis (CF) is a chronic, progressive, and frequently fatal genetic (inherited) disease of the body's mucus glands." *Facts About Cystic Fibrosis*, National Heart, Lung, and Blood Institute, available at <https://www.cdc.gov/scienceambassador/documents/cystic-fibrosis-fact-sheet.pdf> (last visited May 14, 2019).

<sup>20</sup> See *supra* footnote 12.

exclusions listed under Note 4(b) are applicable to the POC, we conclude that a POC is an article designed or adapted for the use and benefit of physically handicapped persons. This holding is also consistent with several of our New York Ruling Letters (NY) which found that POCs or oxygen concentrators were articles designed or adapted for the use and benefit of physically handicapped persons. *See* NY N162408 dated May 10, 2011 and NY A81034 dated March 29, 1996.

Although we have determined that POCs qualify for classification in subheading 9817.00.96, HTSUS, the parts of such POCs, such as the rotor assembly at issue, do not automatically qualify for such treatment. We must examine whether the rotor assembly is specially designed or adapted for use in POCs and therefore eligible for classification in subheading 9817.00.96, HTSUS. In considering whether the rotor assembly qualifies as a part of the POC under subheading 9817.00.96, HTSUS, we consider whether it would be considered a part of the POC under a general analysis of the classification of parts.

With regard to the classification of the rotor assembly at issue, we note that Presidential Proclamation 6821 of September 12, 1995, 60 Fed. Reg. 47633 (September 13, 1995), expanded the scope of subheadings 9817.00.92 through 9817.00.96 to include "parts or accessories" of such articles. Thus, the issue before us is whether the rotor assembly constitutes a "part" of an article "specially designed or adapted" for the handicapped.

The traditional rule in this regard is "that a 'part' of an article is something necessary to the completion of that article. It is an integral, constituent, or component part, without which the article to which it is joined could not function as such article." *See United States v. Willoughby Camera Stores, Inc.*, 21 C.C.P.A. 332, T.D. 46851 (1933), which held that a tripod is not "part" of a camera. Moreover, because a determination regarding whether an item constitutes a "part" is highly fact specific, the courts and CBP have applied other criteria to make this determination.

The courts have held that "the mere fact that two articles are designed to be used together is not alone sufficient to establish that either is a part of the other, or of their combined entity." *Westfield Manufacturing Company v. United States*, 191 F. Supp. 578 (1961). In *Schick X-Ray Co. v. United States*, 271 F. Supp. 305 (1967), the court stated that, "[m]any ... objects, despite the fact that their usefulness is only in conjunction with other articles, retain a separateness of identity and a functional self-sufficiency which preclude their classification as parts."

We must also consider the case law with regard to the particular provision for articles for the use or benefit of the handicapped. In *Starkey Laboratories, Inc. v. United States*, F. Supp. 2d 910 (Ct. Int'l Trade 1998), the court found certain parts of hearing aids to be specially designed or adapted for the use or benefit of deaf persons. The court found that the parts (*inter alia*, potentiometers, trimmers, variable resistors, coils, microphones, receivers, hearing aid body parts and hearing aid subassemblies including microphones or receivers) were specially designed or adapted in that the parts

had to adhere to certain design limitations, *i.e.*, the merchandise had to be resistant to humidity and moisture; it had to be manufactured to fine tolerances; and, for those components that used power, their power consumption had to be designed to be low as that is needed to prolong battery life in hearing aids.

In Headquarters Ruling Letter (HQ) 562870 dated December 19, 2003, CBP found that a motor assembly was a part specifically designed or adapted for use with an insulin pump, a device intended to mimic the pancreas and deliver insulin continuously to the user. The motor assembly powered the pump and was manufactured exclusively to the importer's specifications, having been specifically engineered to be small and compact and produce enough power to be used in the insulin pump. In CBP's view, the motor assembly was not a self-contained object that functioned separately from the insulin pump; rather it constituted a part of the finished article only when combined with its other components. CBP also noted that because the wiring, capacity and basic programming of the motor assembly was specific to the insulin pump, it could not be installed in any other mechanism.

In a ruling involving the same insulin pump at issue in HQ 562870, CBP found that an infusion set was also a part specifically designed or adapted for use with the insulin pump. See HQ 562869 dated December 23, 2003. The infusion set was essentially a thin plastic tube that had a needle or soft cannula at the end, through which insulin was delivered to the user. CBP found that the infusion set served as an integral component of the insulin pump, without which insulin could not be delivered to the user. CBP noted that the connectors attached to the tubing were specific to the pump receptors and could not be used in other capacity.

In applying the principles set forth above, we find that the rotor assembly at issue constitutes a part of the POC, rather than functioning as a self-contained object. The POC's motor, which powers the compressor, would not be able to operate for its intended purpose without the integration of the rotor assembly. Moreover, the rotor assembly is custom ordered by Inogen for exclusive use with its POCs, and requires a number of special adaptions for it to function in a small and compact medical device that provides supplemental oxygen. Unlike Moog's standard catalog rotors, the rotor assembly at issue has a dual-shaft design that enables it to work with the dual-piston function of the POC's compressor. It also uses a type of shaft material that increases its resistance to wear and stress and improves its machinability, allowing the shaft to meet the tight tolerances and dimensions required for use in a POC. Unlike standard rotor offerings, the rotor assembly uses a primer at the bond joint of the rotor core to the shaft to strengthen the bond between the components, and a high energy magnet to produce the torque and efficiency required to power a POC. Based on this evidence, we are convinced that these features of the rotor assembly are specific to its application with a POC. Accordingly, consistent with prior court decisions and CBP rulings, we conclude that the rotor assembly at issue qualifies as a part that is specially designed or adapted for use in a POC, which is itself an article specially designed or adapted for the physically handicapped within the meaning of Nairobi Protocol, Annex E, to the Florence Agreement, as codified in the Education, Scientific, and Cultural Materials Act

of 1982. Therefore, we find that the rotor assembly is eligible for duty-free treatment under subheading 9817.00.96, HTSUS.

HOLDING:

On the basis of the information submitted, a portable oxygen concentrator designed to provide supplemental oxygen to its users is an article “specially designed or adapted” for the handicapped for purposes of the Nairobi Protocol, Annex E, to the Florence Agreement, as codified in the Education, Scientific, and Cultural Materials Act of 1982. Therefore, the rotor assembly that is specially designed for use in a portable oxygen concentrator is a “part” of that article and eligible for duty-free treatment under subheading 9817.00.96, HTSUS.

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation & Special Programs Branch

HQ H301619  
November 6, 2018

CLA-2 OT:RR:CTF:FTM H301619 GaK

CATEGORY: Origin

Mr. Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: Modification of NY N299096; country of origin of electric motors from Mexico; 2018 Section 301 trade remedy; 9903.88.01, HTSUS

Dear Mr. Turner:

On September 13, 2018, U.S. Customs and Border Protection (“CBP”) issued Headquarters Ruling Letter (“HQ”) H300226 to Johnson Electric, modifying New York Ruling Letter (“NY”) N299096, dated July 25, 2018. The ruling also addressed the applicability of the substantial transformation test to determine the country of origin.

It has come to our attention that the ruling contained an error with regard to its articulation of the scope of the applicability of the substantial transformation test. This ruling serves to modify HQ H300226 with regard to this matter. As this modification decision is being issued within 60 days of the issuance of HQ H300226, pursuant to 19 U.S.C. § 1625 (c)(1) and 19 CFR 177.12 (b), this modification is effective immediately. The remainder of HQ H300226 is not affected by this action.

FACTS:

In NY N299096, the product was described as a “Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts...[T]he electric motor is intended to be used with electric door locks[.]”

The product consisted of three components: the stator or rear housing, the rotor or armature assembly, and the end cap assembly. All three components are classified under heading 8503, HTSUS, which provides for “[p]arts suitable for use solely or principally with the machines of heading 8501 or 8502.” The components of Chinese origin are imported into Mexico and assembled into a finished product.

The ruling request in response to which NY N299096 was issued, sought a country of origin determination. Subsequent additional information provided by the inquirer revealed that the inquiry was for purposes of determining the country of origin for purposes of application of subheading 9903.88.01, HTSUS, which provides for “[a]rticles the product of China, as provided for in U.S. note 20(a) to this subchapter and as provided for in the subheadings enumerated in U.S. note 20(b) [to this subchapter]” and applies an additional 25 percent *ad valorem* rate of duty in addition to the column one general rate of duty in the applicable subheading.

ISSUE:

What is the country of origin of the electric motors imported from Mexico for purposes of marking and for purposes of application of the 2018 Section 301 trade remedy for goods under subheading 9903.88.01, HTSUS?

LAW AND ANALYSIS:

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin (or its container) imported into the U.S. shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit in such a manner as to indicate to an ultimate purchaser in the United States the English name of the country of origin of the article. The regulations implementing the requirements and exception to 19 U.S.C. § 1304 are set forth in Part 134, Customs and Border Protection Regulations (19 C.F.R. Part 134).

19 C.F.R. § 134.1(b) provides as follows:

“Country of origin” means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of this part; however, for a good of a NAFTA country, the NAFTA Marking Rules will determine the country of origin.

Since Mexico is a NAFTA country, the NAFTA Marking Rules must be applied in this case to determine the country of origin for purposes of marking.

Part 102, Customs and Border Protection Regulations (19 C.F.R. Part 102), sets forth the NAFTA Marking Rules. Section 102.11 provides a required hierarchy for determining the country of origin of a good for marking purposes. *See* 19 C.F.R. § 102.11. Applied in sequential order, the required hierarchy establishes that the country of origin of a good is the country in which:

- (a)(1) The good is wholly obtained or produced;
- (a)(2) The good is produced exclusively from domestic materials; or
- (a)(3) Each foreign material incorporated in that good undergoes an applicable change in tariff classification set out in Section 102.20 and satisfies any other applicable requirements of that section, and all other applicable requirements of these rules are satisfied.

Sections 102.11(a)(1) and 102.11(a)(2) do not apply to the facts presented in this case because the imported electric motor is neither wholly obtained nor produced exclusively from “domestic” (Mexican, in this case) materials. Because the analysis of sections 102.11(a)(1) and 102.11(a)(2) does not yield a country of origin determination, we look to section 102.11(a)(3). “Foreign material” is defined in 19 C.F.R. § 102.1(e) as “a material whose country of origin as determined under these rules is not the same country as the country in which the good is produced.” The applicable rule for subheading 8501.10.40, HTSUS, in section 102.20 requires:

[a] change to heading 8501 from any other heading.

The foreign components of the electric motor are classified under heading 8503, HTSUS, and meet the tariff shift requirement. Therefore, the country of origin, for purposes of marking, of the electric motor is Mexico.

NY N299096 applied 19 C.F.R. § 102.11(d)(2) to conclude that the country of origin of the electric motor under the 102 rules was not Mexico but China because the electric motor was produced by simple assembly. However, 19 C.F.R. § 102.11(d) cannot be applied if the origin can be determined under 102.11 paragraphs (a), (b) or (c). In this case, a determination can be made by the application of paragraph (a)(3).

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information, see “Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation” (June 20, 2018, 83 F.R. 28710). Products of China that are classified in the subheadings enumerated in U.S. Note 20(b), HTSUS, referenced in subheading 9903.88.01, HTSUS, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products. Products of China classifiable in subheading 8501.10.40, HTSUS, are subject to the additional tariff under subheading 9903.88.01, HTSUS.

When determining the country of origin for purposes of applying current trade remedies under Section 301<sup>1</sup>, Section 232<sup>2</sup>, and Section 201<sup>3</sup>, the substantial transformation analysis is applicable. In accordance with 19 C.F.R. § 102.0, the 102 marking rules are applicable for the limited purposes of: “country of origin marking; determining the rate of duty and staging category applicable to originating textile and apparel products as set out in Section 2 (Tariff

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<sup>1</sup> See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (Jun. 20, 2018).

<sup>2</sup> See Adjusting Imports of Aluminum Into the United States, 83 Fed. Reg. 11619 (Mar. 8, 2018); Adjusting Imports of Steel Into the United States, 83 Fed. Reg. 11625 (Mar. 15, 2018).

<sup>3</sup> See To Facilitate Positive Adjustment to Competition From Imports of Certain Crystalline Silicon Photovoltaic Cells (Whether or Not Partially or Fully Assembled Into Other Products) and for Other Purposes, 83 Fed. Reg. 3541, (Jan. 23, 2018); To Facilitate Positive Adjustment to Competition From Imports of Large Residential Washers, 83 Fed. Reg. 3553 (Jan. 23, 2018).

Elimination) of Annex 300–B (Textile and Apparel Goods); and determining the rate of duty and staging category applicable to an originating good as set out in Annex 302.2 (Tariff Elimination).” *See also* HQ 563205, dated June 28, 2006; *see also Belcrest Linens v. United States*, 741 F.2d 1368, 1370-71 (Fed. Cir. 1984) (finding that “the term ‘product of’ at the least includes manufactured articles of such country or area” and that substantial transformation “is essentially the test used...in determining whether an article is a manufacture of a given country”). As stated above, the 102 rules do however continue to be applicable for purposes of country of origin marking of NAFTA goods, as defined in 19 C.F.R. § 134.1.

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade (“CIT”) interpreted the meaning of the term “substantial transformation” as used in the Trade Agreements Act of 1979 (“TAA”) for purposes of government procurement. *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight, under the TAA. All of the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the “name, character and use” test in determining whether a substantial transformation had occurred, and reviewed various court decisions involving substantial transformation determinations. The court noted, citing *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 226, 542 F. Supp. 1026, 1031, aff’d, 702 F.2d 1022 (Fed. Cir. 1983), that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, aff’d 989 F.2d 1201 (Fed. Cir. 1993). Furthermore, courts have considered the nature of the assembly, i.e., whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a pre-determined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights under the government procurement provisions of the TAA.

In this case, the foreign subassemblies are imported into Mexico where they will be assembled into the electric motor. The foreign subassemblies had a pre-determined end-use and did not undergo a change in use due to the assembly process in Mexico. Based on the information provided, the production process performed in Mexico is mere simple assembly and the foreign subassemblies are not substantially transformed.

As the assembly of the Chinese parts into a motor in Mexico does not result in a substantial transformation of the Chinese parts, the motor remains a product of China. Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent *ad valorem* rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.40, HTSUS, listed above.

**HOLDING:**

The country of origin of the electric motor for purposes of marking is Mexico. The country of origin of the electric motor for purposes of the application of subheading 9903.88.01, is China.

**EFFECT ON OTHER RULINGS:**

NY N299096, dated July 25, 2018, is hereby MODIFIED.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division

HQ H301619  
November 6, 2018

CLA-2 OT:RR:CTF:FTM H301619 GaK

CATEGORY: Origin

Mr. Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: Modification of NY N299096; country of origin of electric motors from Mexico; 2018 Section 301 trade remedy; 9903.88.01, HTSUS

Dear Mr. Turner:

On September 13, 2018, U.S. Customs and Border Protection (“CBP”) issued Headquarters Ruling Letter (“HQ”) H300226 to Johnson Electric, modifying New York Ruling Letter (“NY”) N299096, dated July 25, 2018. The ruling also addressed the applicability of the substantial transformation test to determine the country of origin.

It has come to our attention that the ruling contained an error with regard to its articulation of the scope of the applicability of the substantial transformation test. This ruling serves to modify HQ H300226 with regard to this matter. As this modification decision is being issued within 60 days of the issuance of HQ H300226, pursuant to 19 U.S.C. § 1625 (c)(1) and 19 CFR 177.12 (b), this modification is effective immediately. The remainder of HQ H300226 is not affected by this action.

FACTS:

In NY N299096, the product was described as a “Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts...[T]he electric motor is intended to be used with electric door locks[.]”

The product consisted of three components: the stator or rear housing, the rotor or armature assembly, and the end cap assembly. All three components are classified under heading 8503, HTSUS, which provides for “[p]arts suitable for use solely or principally with the machines of heading 8501 or 8502.” The components of Chinese origin are imported into Mexico and assembled into a finished product.

The ruling request in response to which NY N299096 was issued, sought a country of origin determination. Subsequent additional information provided by the inquirer revealed that the inquiry was for purposes of determining the country of origin for purposes of application of subheading 9903.88.01, HTSUS, which provides for “[a]rticles the product of China, as provided for in U.S. note 20(a) to this subchapter and as provided for in the subheadings enumerated in U.S. note 20(b) [to this subchapter]” and applies an additional 25 percent *ad valorem* rate of duty in addition to the column one general rate of duty in the applicable subheading.

ISSUE:

What is the country of origin of the electric motors imported from Mexico for purposes of marking and for purposes of application of the 2018 Section 301 trade remedy for goods under subheading 9903.88.01, HTSUS?

LAW AND ANALYSIS:

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin (or its container) imported into the U.S. shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit in such a manner as to indicate to an ultimate purchaser in the United States the English name of the country of origin of the article. The regulations implementing the requirements and exception to 19 U.S.C. § 1304 are set forth in Part 134, Customs and Border Protection Regulations (19 C.F.R. Part 134).

19 C.F.R. § 134.1(b) provides as follows:

“Country of origin” means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of this part; however, for a good of a NAFTA country, the NAFTA Marking Rules will determine the country of origin.

Since Mexico is a NAFTA country, the NAFTA Marking Rules must be applied in this case to determine the country of origin for purposes of marking.

Part 102, Customs and Border Protection Regulations (19 C.F.R. Part 102), sets forth the NAFTA Marking Rules. Section 102.11 provides a required hierarchy for determining the country of origin of a good for marking purposes. *See* 19 C.F.R. § 102.11. Applied in sequential order, the required hierarchy establishes that the country of origin of a good is the country in which:

- (a)(1) The good is wholly obtained or produced;
- (a)(2) The good is produced exclusively from domestic materials; or
- (a)(3) Each foreign material incorporated in that good undergoes an applicable change in tariff classification set out in Section 102.20 and satisfies any other applicable requirements of that section, and all other applicable requirements of these rules are satisfied.

Sections 102.11(a)(1) and 102.11(a)(2) do not apply to the facts presented in this case because the imported electric motor is neither wholly obtained nor produced exclusively from “domestic” (Mexican, in this case) materials. Because the analysis of sections 102.11(a)(1) and 102.11(a)(2) does not yield a country of origin determination, we look to section 102.11(a)(3). “Foreign material” is defined in 19 C.F.R. § 102.1(e) as “a material whose country of origin as determined under these rules is not the same country as the country in which the good is produced.” The applicable rule for subheading 8501.10.40, HTSUS, in section 102.20 requires:

[a] change to heading 8501 from any other heading.

The foreign components of the electric motor are classified under heading 8503, HTSUS, and meet the tariff shift requirement. Therefore, the country of origin, for purposes of marking, of the electric motor is Mexico.

NY N299096 applied 19 C.F.R. § 102.11(d)(2) to conclude that the country of origin of the electric motor under the 102 rules was not Mexico but China because the electric motor was produced by simple assembly. However, 19 C.F.R. § 102.11(d) cannot be applied if the origin can be determined under 102.11 paragraphs (a), (b) or (c). In this case, a determination can be made by the application of paragraph (a)(3).

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information, see “Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation” (June 20, 2018, 83 F.R. 28710). Products of China that are classified in the subheadings enumerated in U.S. Note 20(b), HTSUS, referenced in subheading 9903.88.01, HTSUS, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products. Products of China classifiable in subheading 8501.10.40, HTSUS, are subject to the additional tariff under subheading 9903.88.01, HTSUS.

When determining the country of origin for purposes of applying current trade remedies under Section 301<sup>1</sup>, Section 232<sup>2</sup>, and Section 201<sup>3</sup>, the substantial transformation analysis is applicable. In accordance with 19 C.F.R. § 102.0, the 102 marking rules are applicable for the limited purposes of: “country of origin marking; determining the rate of duty and staging category applicable to originating textile and apparel products as set out in Section 2 (Tariff

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<sup>1</sup> See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (Jun. 20, 2018).

<sup>2</sup> See Adjusting Imports of Aluminum Into the United States, 83 Fed. Reg. 11619 (Mar. 8, 2018); Adjusting Imports of Steel Into the United States, 83 Fed. Reg. 11625 (Mar. 15, 2018).

<sup>3</sup> See To Facilitate Positive Adjustment to Competition From Imports of Certain Crystalline Silicon Photovoltaic Cells (Whether or Not Partially or Fully Assembled Into Other Products) and for Other Purposes, 83 Fed. Reg. 3541, (Jan. 23, 2018); To Facilitate Positive Adjustment to Competition From Imports of Large Residential Washers, 83 Fed. Reg. 3553 (Jan. 23, 2018).

Elimination) of Annex 300–B (Textile and Apparel Goods); and determining the rate of duty and staging category applicable to an originating good as set out in Annex 302.2 (Tariff Elimination).” *See also* HQ 563205, dated June 28, 2006; *see also Belcrest Linens v. United States*, 741 F.2d 1368, 1370-71 (Fed. Cir. 1984) (finding that “the term ‘product of’ at the least includes manufactured articles of such country or area” and that substantial transformation “is essentially the test used...in determining whether an article is a manufacture of a given country”). As stated above, the 102 rules do however continue to be applicable for purposes of country of origin marking of NAFTA goods, as defined in 19 C.F.R. § 134.1.

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade (“CIT”) interpreted the meaning of the term “substantial transformation” as used in the Trade Agreements Act of 1979 (“TAA”) for purposes of government procurement. *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight, under the TAA. All of the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the “name, character and use” test in determining whether a substantial transformation had occurred, and reviewed various court decisions involving substantial transformation determinations. The court noted, citing *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 226, 542 F. Supp. 1026, 1031, aff’d, 702 F.2d 1022 (Fed. Cir. 1983), that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, aff’d 989 F.2d 1201 (Fed. Cir. 1993). Furthermore, courts have considered the nature of the assembly, i.e., whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a pre-determined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights under the government procurement provisions of the TAA.

In this case, the foreign subassemblies are imported into Mexico where they will be assembled into the electric motor. The foreign subassemblies had a pre-determined end-use and did not undergo a change in use due to the assembly process in Mexico. Based on the information provided, the production process performed in Mexico is mere simple assembly and the foreign subassemblies are not substantially transformed.

As the assembly of the Chinese parts into a motor in Mexico does not result in a substantial transformation of the Chinese parts, the motor remains a product of China. Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent *ad valorem* rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.40, HTSUS, listed above.

**HOLDING:**

The country of origin of the electric motor for purposes of marking is Mexico. The country of origin of the electric motor for purposes of the application of subheading 9903.88.01, is China.

**EFFECT ON OTHER RULINGS:**

NY N299096, dated July 25, 2018, is hereby MODIFIED.

Sincerely,

Myles B. Harmon, Director  
Commercial and Trade Facilitation Division



U.S. Customs and  
Border Protection

**HQ H302168**

January 8, 2021

**OT:RR:CTF:EMAIN HQ H302168 TPB**

**CATEGORY:** Classification

**TARIFF NO.:** 8419.60.50

Joseph Acayan  
Givens & Johnston PLLC  
950 Echo Lane, Suite 360  
Houston, TX 77024-2788

**Re:** Revocation of NY N300353; Classification of a distillation refining module

Dear Mr. Acayan:

The following is our decision regarding your request for reconsideration of New York Ruling Letter (NY) N300353, dated September 27, 2018, on behalf of your client, Fluor Enterprises, Inc. (Fluor; Importer), regarding the tariff classification of a certain plant module under the Harmonized Tariff Schedule of the United States (HTSUS).

In that ruling letter, the product at issue, "Module 1101JB," is described as interfacing with various other modules and consists of interconnected components that include reboilers, condensers, pumps, drums and interconnecting pipes. The module was classified under subheading 8419.89.9585, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; Other machinery, plant or equipment: Other: Other." In your request for reconsideration, you argue that the proper classification of the module is under subheading 8419.50.50, HTSUS, which provides for other heat exchange units.

We have now determined that the distillation refining module subject to N300353 is classifiable in subheading 8419.60.50. Notice of the proposed action was published in the Customs Bulletin, Vol. 54, No. 42, on October 28, 2020. No comments were received in response to that notice. For the reasons set forth below, we hereby revoke NY N300353.

## **FACTS:**

The article at issue in NY N300353 is Module 1101JB, which is described in the ruling as follows:

The Distillation Refining Module, module 1101JB, interfaces with various other modules and consists of interconnected components that include reboilers, condensers, pumps, drums and interconnecting pipes. It is noted that the distillation module does not include the distillation columns and does not complete a distillation process. The function of the multi-tiered module is to complete a transfer of heat process that vaporizes liquid and a cooling process that liquefies gas.

The reboilers are configured as shell and tube heat exchangers that use steam or gas to vaporize liquid. The vapor is then returned to the boilers and liquid drawn from the boilers is collected by a drum and subsequently pumped to another module.

The condensers, which are also said to be configured as a shell and tube heat exchangers, cool vapor and liquefy gas. The condensed liquid produced by the condensers is sent to a drum and later pumped to another module.

As implied above, the subject module is one of several separately imported modules that comprise the South Louisiana Methanol Plant (the Plant). The Plant includes a 93-tray distillation column (the "column") that is used to separate a mixed stream of liquid methanol and water. The column produces a stream of 99%+ pure methanol gas out of the top and a steam of 99%+ pure water out of the bottom. You note that the subject distillation module does not include the distillation columns and does not complete a distillation process. While the reboilers and the condensers are both included in Module 1101JB and are imported together, they are two separate systems supporting the column, which performs two distinctly different, albeit complementary, functions.

In your submission, you note that the reboilers provide the heat necessary for the distillation column to function by boiling and recycling a portion of the column's bottom liquid fraction back into the column, while the condensers dissipate heat from the column to help regulate the temperature in the column by condensing and recycling a portion of the column's top gaseous fraction back into the column.

NY N300353 states that the function of the multi-tiered module is to complete a transfer of heat process that vaporizes liquid and a cooling process that liquefies gas. The reboilers are configured as shell and tube heat exchangers that use steam or gas to vaporize liquid. The vapor is then returned to the boilers and liquid drawn from the boilers is collected by a drum and subsequently pumped to another module. The condensers, which are also said to be configured as a shell and tube heat exchangers, cool vapor and liquefy gas. The condensed liquid produced by the condensers is sent to a drum and later pumped to another module.

## **ISSUE:**

What is the classification of the distillation refining module?

## **LAW AND ANALYSIS:**

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The HTSUS provisions under consideration are as follows:

- 8419      Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof:
  - Heat exchange units
- 8419.50    - Machinery for liquefying air or other gases
  - Other machinery, plant and equipment
- 8419.89    -- Other

You note that while the reboilers and the condensers are both included in Module 1101JB and are imported together they are two separate systems supporting the column that perform two distinctly different, albeit complementary, functions. As such, they should be classified separately. However, from the schematics provided with your request, the Module 1101JB comprises a complete system where the component reboilers and condensers are interconnected. As such, Note 4 to Section XVI is applicable. That Note states:

Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in Chapter 84 or Chapter 85, then the whole falls to be classified in the heading appropriate to that function.

The components, reboilers and condensers, contribute together to perform a function covered by heading 8419, i.e., the treatment of materials by a process involving a change of temperature. As such, there is no difference of opinion between Importer and CBP as to the heading for these modules are classified under.

With regard to the subheading, GRI 6 instructs that for legal purposes, the classification of goods in the subheadings of a heading shall be determined according to

the terms of those subheadings and any related Subheading Notes and, *mutatis mutandis*, to GRIs 1 – 5, on the understanding that only subheadings at the same level are comparable. For the purposes of this Rule the relative Section and Chapter Notes also apply, unless the context otherwise requires.

In your submission, you argue that the reboilers and the condensers are all shell and tube heat exchangers and based on their function, should be classified under subheading 8419.50 as heat exchangers.

We agree that the reboilers are shell and tube heat exchangers, and if these were the sole components of the module, they would be classified under subheading 8419.50, HTSUS. However, the module is comprised of additional components, which include condensers. As you indicate, the gaseous fraction of the methane feed enters the condensers shell, where it is cooled to the point of condensing. Subheading 8419.60, HTSUS, specifically provides for machinery for liquefying air or other gases, and therefore covers the instant condensers regardless of whether they accomplish their function by virtue of heat transfer.

Taking the above into consideration, the instant Module 1101JB performs the functions of vaporizing liquid *and* liquefying gas through a combination of reboilers and condensers. Looking again at Note 4 to Section XVI, it states that where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in Chapter 84 or Chapter 85, then the whole falls to be classified in the heading appropriate to that function. Application of this Note at the subheading level does not resolve the classification issue, since neither subheading 8419.50 or 8419.60 describes a clearly defined function performed by the module; each subheading describes only a part of the module's operation. Subheading 8419.89 is a residual subheading, which provides for other machinery or plant equipment not described in any of the previous subheadings. But in this case, the functions of the module have been described in two preceding subheadings of heading 8419, HTSUS. As such, GRI 1 (*via* GRI 6) instructs us to proceed to the subsequent GRIs.

In this case, we have a product comprised of components described in two different subheadings, i.e., subheading 8419.50 and 8419.60, making it a composite good. These types of goods are classified by application of GRI 3. Further, because both the reboilers and the condensers provide necessary functions to the module, neither component imparts the essential character of the module. Therefore, by application of GRI 3 (c), the module will be classified under the subheading which occurs last in numerical order among those which equally merit consideration. In this case, subheading 8419.60, which provides for machinery for liquefying air or other gases.

**HOLDING:**

As explained above, by application of GRI 1 (Note 4 to Section XVI) Module 1101JB is classified under heading 8419, HTSUS, which provides for machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature. Further, by application of GRIs 6 and 3 (c), the module is classified in subheading 8419.60.50, HTSUS, which provides for other machinery for liquefying air or other gases. The general rate of duty is free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8419.60.50, HTSUS, unless specifically excluded, are subject to an additional 25-percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8419.60.50, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

**EFFECT ON OTHER RULINGS:**

New York Ruling Letter N300353, dated September 27, 2018, is hereby REVOKED. In accordance with 19 U.S.C. §1625(c), this ruling will become effective 60 days after its publication in the Customs Bulletin.

Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division

N296295

May 8, 2018

CLA-2-90:OT:RR:NC:N1:105

CATEGORY: Classification

TARIFF NO.: 9025.80.1000, 8543.70.4500

Virginia Smith  
Jasco Products Company  
10 East Memorial Road  
Oklahoma City, OK 73020

RE: The tariff classification of a flood/freeze sensor and a smart door/window sensor from China

Dear Ms. Smith:

In your letter dated April 12, 2018, you requested a tariff classification ruling. Samples were provided.

The first item under consideration in your submission is identified as a Smart Flood/Freeze Sensor, model #38959. The product is described as a smart-home leak detector intended to assist in the monitoring of water lines for potential problems. The device can be mounted on a floor or wall and incorporates sensors that detect water. The device features a four-foot remote sensor probe that can be used to monitor water activity in hard to reach places. The Smart Flood/Freeze Sensor also has the ability to measure ambient temperature and humidity. The device is designed to be paired with a home automation controller, and will wirelessly share data with the controller (temperature readings, notifications if water is detected, etc.). The home automation system can send the data collected from the sensor, including alerts, to a user's smartphone. The Smart Flood/Freeze Sensor's ability to measure temperature and humidity, at a minimum, is covered by the heading (9025) that appears last among those that equally merit consideration in providing the device's essential character.

The second item under consideration is referred to as the Slim Door/Window Sensor and Magnets, Model #38957, which you describe as a wireless sensor switch that is intended to be mounted to doors or windows to detect its opening and closing. The subject device consists of a plastic enclosure containing a printed circuit board assembly that incorporates a reed switch and control electronics, a magnet, and a disc battery. In use, the Slim Door/Window Sensor is mounted to a door along with its corresponding magnet. When the door is opened and the magnet is separated from the reed switch, a wireless signal is sent to a home automation controller for notification purposes.

The applicable subheading for the Smart Flood/Freeze Sensor, Model 38959, will be

9025.80.1000, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Hydrometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers, recording or not, and any combination of these instruments; parts and accessories thereof: Other instruments: Electrical.” The rate of duty will be 1.7% ad valorem.

The applicable subheading for the Slim Door/Window Sensor and Magnets, Model #38957, will be 8543.70.4500, HTSUS, which provides for “Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter...: Other machines and apparatus: Electric synchros and transducers...: Other.” The rate of duty will be 2.6% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Evan Conceicao at [evan.m.conceicao@cbp.dhs.gov](mailto:evan.m.conceicao@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

HQ H302801

October 3, 2019

OT:RR:CTF:FTM H302801 TJS

CATEGORY: Origin

Mr. John R. Shane, Esq.  
Wiley Rein LLP  
1776 K Street, N.W.  
Washington, DC 20006

RE: Country of Origin of Certain Wearable Electronic Smart Devices; Substantial Transformation

Dear Mr. Shane:

This is in response to your correspondence, dated December 13, 2018, requesting a binding ruling, on behalf of Fitbit, Inc. ("Fitbit"), concerning the country of origin of certain wirelessly-communicative, wearable electronic smart devices.<sup>1</sup> You provided additional information to our office during our meeting on September 13, 2019 and filed supplemental submissions in April 2019, May 2019, and on September 17, 2019. Our ruling is set forth below.

You have asked that certain information submitted in connection with this ruling request be treated as confidential. Inasmuch as this request conformed to the requirements of 19 C.F.R. § 177.2(b)(7), your request for confidentiality was approved by correspondence from this office, dated June 3, 2019. Specifically, we granted your request for confidential treatment for the images provided in your initial submission; for the data and diagrams provided on April 12, 2019; and for certain supplier, cost, production and value information specified in your May 24, 2019, and September 17, 2019 submissions.

#### FACTS:

According to your submission, Fitbit manufactures wirelessly-communicative, wearable electronic smart devices. Specifically, the Fitbit devices at issue are two styles of Bluetooth-enabled smartwatches/fitness trackers, referenced as Style A and Style B. These smartwatches/fitness trackers will be comprised of components from Taiwan, China, and the Philippines, as follows:

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<sup>1</sup> Your request was forwarded to this office by the National Commodity Specialist Division.

- Produced in Taiwan: The Bluetooth radio transceiver; central processing unit (“CPU”); printed circuit board; memory; and certain task-specific integrated circuits.
- Produced in China: The touchscreen display; vibration motor; rechargeable lithium ion battery; plastic/aluminum housing; and the wristband.
- Produced in the Philippines: The accelerometer and certain task-specific integrated circuits.

Style A devices use a combined Bluetooth transceiver/CPU component while Style B devices use separate Bluetooth transceiver and CPU components. You indicate that the combined transceiver/CPU component incorporated in Style A is offered to other customers, despite Fitbit having a heavy influence on the development of the component and being the sole customer as of our September 13, 2019 meeting. For Style B, Fitbit purchases an “off-the-shelf” Bluetooth transceiver from the manufacturer that is used in other devices, including non-wearable devices.

Surface-mount technology (“SMT”) is used to load a raw printed circuit board (“PCB”) with diodes, transistors, capacitors, resistors, memory chips, and other task-specific integrated circuits. Once the PCB is fully populated, it becomes known as a printed circuit board assembly (“PCBA”). According to your September 17, 2019 submission, both styles contain two PCBAs. The main PCBA includes the Bluetooth transceiver, Wi-Fi components, CPU, memory, the accelerometer, and other task-specific integrated circuits that gauge battery life and regulate power flow. The smaller, auxiliary PCBA focuses on the heart rate monitoring functions. During this SMT process, Fitbit would also install a limited software program that allows the user to set up the device and download the full operating system from Fitbit’s servers in the United States. The operating system for the devices is developed in the United States. The fully automated SMT process will take approximately six minutes to complete the main PCBA and two minutes to complete the heart rate monitor PCBA.

Final assembly operations occur on a typical assembly line and will take approximately seventeen minutes to complete one device. The assembly operations for the two product types differ slightly, but in both cases involve cleaning and laying out the housing and then installing the housing with the heart rate monitor PCBA, main PCBA, vibration motor, battery, and display. After the unit is assembled, it is tested and the wristband is attached. Finally, the product is packaged and readied for shipping. You state that the assembly workers in China require very little education or training. A high school diploma is not required and training takes about one to two weeks to become fully proficient in highly specific tasks.

In your initial December 13, 2018 submission, you presented a sourcing scenario wherein the SMT and final assembly operations would be performed in China. In your most recent submission, dated September 17, 2019, you provided two updated scenarios in which the SMT operations for both PCBAs would be conducted either in Taiwan or in a third country, such as Malaysia or Indonesia. Fitbit requests CBP’s ruling regarding the country of origin of its wearable electronic smart devices sourced by these updated scenarios. In all scenarios, the final assembly remains in China.

**ISSUE:**

What is the country of origin for the Fitbit smartwatch/fitness tracker wearable devices?

**LAW AND ANALYSIS:**

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. By enacting 19 U.S.C. § 1304, Congress intended to ensure “that the ultimate purchaser should be able to know by an inspection of the marking on the imported goods the country of which the goods is the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will.” *United States v. Friedlaender & Co.*, 27 C.C.P.A. 297, 302 (1940).

The country of origin marking requirements and the exceptions of 19 U.S.C. § 1304 are set forth in Part 134, Customs Regulations (19 C.F.R. Part 134). Section 134.1(b), Customs Regulations (19 C.F.R. § 134.1(b)), defines “country of origin” as the country of manufacture, production or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of the marking laws and regulations. A substantial transformation is said to have occurred when an article emerges from a manufacturing process with a name, character, or use which differs from the original material subjected to the process. *United States v. Gibson-Thomsen Co.*, 27 C.C.P.A. 267 (C.A.D. 98) (1940); *Texas Instruments, Inc. v. United States*, 681 F.2d 778, 782 (1982).

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of the operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 6 C.I.T. 204, 573 F. Supp. 1149 (1983), *aff'd*, 741 F.2d 1368 (Fed. Cir. 1984). If the manufacturing or combining process is a minor one that leaves the identity of the imported article intact, a substantial transformation has not occurred. *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 542 F. Supp. 1026 (1982).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item’s components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, or use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process may be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

Substantial transformation, including the “name, character and use” test, was also at issue in *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, *aff’d*, 989 F.2d 1201 (Fed. Cir. 1993). Therein, the Court of International Trade determined that certain mechanics’ tools did not undergo substantial transformation in the United States, and therefore, were not exempt from the marking requirements set forth in 19 U.S.C. § 1304. The court found that there was no change in name because each article as imported had the same name in the completed tool. The court also found that there was no change in character because the articles, which were either hot-forged or cold-formed into its final shape in Taiwan, remained the same after heat treatment, electroplating, and assembly in the United States. The court further determined that the use of the imported articles was predetermined at the time of entry – noting that each component was intended to be incorporated in a particular finished mechanics’ hand tool, except for one exhibit. Lastly, the court rejected the Plaintiff’s claim that the value added in the United States was relatively significant to the operation in Taiwan so that that substantial transformation should be found, noting that such a finding could lead to inconsistent marking requirements for importers who perform exactly the same processes on imported merchandise, but sell at different prices. *Id.*

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade interpreted the meaning of “substantial transformation.” *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States and assembled into the finished Generation II flashlight. The *Energizer* court reviewed the “name, character and use” test utilized in determining whether a substantial transformation had occurred and noted, citing *Uniroyal, Inc.*, 3 C.I.T. at 226, that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. at 311-312. Furthermore, courts have considered the nature of the assembly, *i.e.*, whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a predetermined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. Virtually all of the components of the military Generation II flashlight, including the most important component, the LED, were of Chinese origin. Thus, the court determined that China was the correct country of origin of the finished Generation II flashlights for purposes of government procurement.

The Court of International Trade has also looked at the essential character of an article to determine whether its identity has been substantially transformed through assembly or processing. For example, in *Uniroyal, Inc. v. United States*, 3 C.I.T. at 225, the court held that imported shoe uppers added to an outer sole in the United States were the “very essence of the finished shoe” and thus the character of the product remained unchanged and did not undergo substantial transformation in the United States. Similarly, in *National Juice Products Association v. United States*, 10 C.I.T. 48, 61, 628 F. Supp. 978, 991 (1986), the court held that imported orange juice concentrate “imparts the essential character” to the completed orange juice and thus was not substantially transformed into a product of the United States.

In C.S.D. 85-25, 19 Cust. Bull. 844 (1985), CBP held that for purposes of the Generalized System of Preferences, the assembly of a large number of fabricated components onto a printed circuit board in a process involving a considerable amount of time and skill resulted in a substantial transformation. In that case, in excess of 50 discrete fabricated components (such as resistors, capacitors, diodes, integrated circuits, sockets, and connectors) were assembled onto a PCB. CBP determined that the assembly of the PCBA involved a very large number of components and a significant number of different operations, required a relatively significant period of time as well as skill, attention to detail, and quality control, and resulted in significant economic benefit to the beneficiary developing country from the standpoint of both value added to the PCBA and the overall employment generated thereby.

Per your most recent submission dated September 17, 2019, Fitbit requests confirmation that country of origin would result from where the SMT takes place, whether that be in Taiwan or in another third country, such as Malaysia or Indonesia. In support of this claim, you cite HQ H287548, dated March 23, 2018 and New York Ruling Letter (“NY”) N303008, dated March 8, 2019.

In HQ H287548, CBP considered the country of origin of a monochrome laser printer assembled in the United States with Vietnamese subassemblies and a Japanese-origin PCBA and firmware. In that ruling, CBP determined that the Japanese-origin PCBA and firmware together embodied the essential character of the laser printer because the firmware provided the control program for the printers and enabled the main PCBA to function as the electronic “brains” of the printers by controlling all printer functions. Moreover, the production of the subcomponents in Vietnam was inexpensive and did not require a sophisticated skill set to effect production. Likewise, the final manufacturing in the United States, which was concluded in 40 minutes (including testing), did not rise to the level of complex processes necessary for a substantial transformation to occur. Therefore, the country of origin of the laser printers was Japan for government procurement purposes.

In NY N303008, CBP considered the country of origin of cellphones that were produced in three stages. First, the PCBA was manufactured using SMT, tested, and loaded with the operating system in Taiwan, Malaysia, or Vietnam. Second, in China, the hardware was assembled together with the PCBA, housing, screen, keys/keypads, USB connectors, battery, and antenna, and then tested again. Third, the assembled devices were flashed with any customer-specific software in China and then packaged with peripherals in the United States. CBP held

that PCBA imparted the essential character to the cellphones and that the assembly operations in China and the United States did not result in a substantial transformation of the PCBA. Therefore, the cellphones were considered a product of Taiwan, Malaysia, or Vietnam, depending upon which country the SMT processes took place.

Similarly, HQ H301910, dated August 5, 2019, concerned the country of origin of mailing machine engines used in certain postage meters. In that ruling, the body of the engine was assembled in China and then shipped to Japan where the Japanese-origin PCBA, print head, and print control and diagnostic firmware were installed. Testing and packaging also occurred in Japan. CBP determined that the main PCBA, the print control firmware, and the print head constituted the primary and fundamental essence of the mailing machine engine because these components controlled the engine's function, operations, and enabled the printing of the correct postage. In particular, the main PCBA itself was composed of components essential to the fundamental function and primary purpose of the engine including the CPU, the memory, and the Field-Programmable Gate Array - all of which combined to form the "brain" of the machine. CBP held that, inasmuch as the main PCBA, the print control firmware, and the print head were all produced in Japan, the country of origin of the mailing engine machine was Japan.

We find that the instant case is similar to HQ H287548, NY N303008, and HQ H301910. In this case, the PCBAs impart the essential character of the smartwatches/fitness trackers. Here, the electronic components from Taiwan and the Philippines are incorporated into the PCBAs by SMT to form the "brain" of the device that enables the device to operate as intended. Specifically, the main PCBA incorporates the Bluetooth transceiver and the CPU, together allowing the device to process information and communicate with the user and Fitbit's servers. This wireless communication and processing is fundamental to the primary use of the devices as smartwatches/fitness trackers. Furthermore, the accelerometer on the main PCBA and the heart rate monitor PCBA are essential for gathering information on the user's fitness, which is another distinguishing function of the Fitbit devices.

The SMT operations result in a new and different product with an overall use and function different than any one function of the individual components. Each individual component serves a particular purpose or function once incorporated into the PCBA. Prior to the SMT operations, these components are stand-alone, general use items. For example, the Bluetooth transceivers are available to other customers and some are used in devices other than wearable smart devices. Only after they are assembled with other components on the PCBA do the Bluetooth transceivers serve Fitbit's particular function of exchanging data gathered by the device's sensors with the user's paired mobile phone. Furthermore, once the PCBA becomes populated, it loses its character and identity as a blank platform used for holding and assembling all of the communications, processing, and electronic subcomponents, and becomes identified as a printed circuit board assembly. It is also during the SMT process that Fitbit's software is installed in the PCBA. Until the PCBA is created, the device will not have the character or use of a smart device used for fitness tracking. The components cannot individually carry out the functions of a device suitable as a smart watch or for tracking the user's fitness and activity. The unique and full functionality of Fitbit's devices is only accessed once the components and subassemblies are integrated and populated into the PCBA. By being incorporated into the PCBA, the individual parts lose their identity and become an integral part of the new article.

The final assembly that occurs in China does not render the PCBAs into a product with a new name, character, or use. Attaching the PCBAs into the housing with the vibration motor, battery, display, and wristband does not alter their functional or physical attributes. Upon importation into China, the PCBAs have a predetermined end-use as the electronic “brain” of the Fitbit devices, consistent with the court’s analysis in *Energizer*. Additionally, the assembly operations in China are neither complex nor time intensive. The workers in China require little training to perform their individual task along the assembly line. Although the SMT process is fully automated and lasts merely six minutes, it requires complex, expensive equipment and a high level of expertise. The SMT process also involves more components and subassemblies in manufacturing the PCBAs than the final assembly in China. Therefore, we find that the SMT operations constitute a complex assembly process that results in a substantial transformation of the electronic components from Taiwan and the Philippines into a new and different article of commerce with a new name, character, and use distinct from the components. The country of origin for the subject Fitbit devices will be where the PCBAs are manufactured by SMT, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

**HOLDING:**

Based on the facts provided, the country of origin of Fitbit’s wirelessly-communicative, wearable electronic smart devices is where the PCBAs are manufactured by surface-mount technology, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

Sincerely,

Yuliya A. Gulis, Chief  
Food, Textiles and Marking Branch

HQ H302801

October 3, 2019

OT:RR:CTF:FTM H302801 TJS

CATEGORY: Origin

Mr. John R. Shane, Esq.  
Wiley Rein LLP  
1776 K Street, N.W.  
Washington, DC 20006

RE: Country of Origin of Certain Wearable Electronic Smart Devices; Substantial Transformation

Dear Mr. Shane:

This is in response to your correspondence, dated December 13, 2018, requesting a binding ruling, on behalf of Fitbit, Inc. ("Fitbit"), concerning the country of origin of certain wirelessly-communicative, wearable electronic smart devices.<sup>1</sup> You provided additional information to our office during our meeting on September 13, 2019 and filed supplemental submissions in April 2019, May 2019, and on September 17, 2019. Our ruling is set forth below.

You have asked that certain information submitted in connection with this ruling request be treated as confidential. Inasmuch as this request conformed to the requirements of 19 C.F.R. § 177.2(b)(7), your request for confidentiality was approved by correspondence from this office, dated June 3, 2019. Specifically, we granted your request for confidential treatment for the images provided in your initial submission; for the data and diagrams provided on April 12, 2019; and for certain supplier, cost, production and value information specified in your May 24, 2019, and September 17, 2019 submissions.

#### **FACTS:**

According to your submission, Fitbit manufactures wirelessly-communicative, wearable electronic smart devices. Specifically, the Fitbit devices at issue are two styles of Bluetooth-enabled smartwatches/fitness trackers, referenced as Style A and Style B. These smartwatches/fitness trackers will be comprised of components from Taiwan, China, and the Philippines, as follows:

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<sup>1</sup> Your request was forwarded to this office by the National Commodity Specialist Division.

- Produced in Taiwan: The Bluetooth radio transceiver; central processing unit (“CPU”); printed circuit board; memory; and certain task-specific integrated circuits.
- Produced in China: The touchscreen display; vibration motor; rechargeable lithium ion battery; plastic/aluminum housing; and the wristband.
- Produced in the Philippines: The accelerometer and certain task-specific integrated circuits.

Style A devices use a combined Bluetooth transceiver/CPU component while Style B devices use separate Bluetooth transceiver and CPU components. You indicate that the combined transceiver/CPU component incorporated in Style A is offered to other customers, despite Fitbit having a heavy influence on the development of the component and being the sole customer as of our September 13, 2019 meeting. For Style B, Fitbit purchases an “off-the-shelf” Bluetooth transceiver from the manufacturer that is used in other devices, including non-wearable devices.

Surface-mount technology (“SMT”) is used to load a raw printed circuit board (“PCB”) with diodes, transistors, capacitors, resistors, memory chips, and other task-specific integrated circuits. Once the PCB is fully populated, it becomes known as a printed circuit board assembly (“PCBA”). According to your September 17, 2019 submission, both styles contain two PCBAs. The main PCBA includes the Bluetooth transceiver, Wi-Fi components, CPU, memory, the accelerometer, and other task-specific integrated circuits that gauge battery life and regulate power flow. The smaller, auxiliary PCBA focuses on the heart rate monitoring functions. During this SMT process, Fitbit would also install a limited software program that allows the user to set up the device and download the full operating system from Fitbit’s servers in the United States. The operating system for the devices is developed in the United States. The fully automated SMT process will take approximately six minutes to complete the main PCBA and two minutes to complete the heart rate monitor PCBA.

Final assembly operations occur on a typical assembly line and will take approximately seventeen minutes to complete one device. The assembly operations for the two product types differ slightly, but in both cases involve cleaning and laying out the housing and then installing the housing with the heart rate monitor PCBA, main PCBA, vibration motor, battery, and display. After the unit is assembled, it is tested and the wristband is attached. Finally, the product is packaged and readied for shipping. You state that the assembly workers in China require very little education or training. A high school diploma is not required and training takes about one to two weeks to become fully proficient in highly specific tasks.

In your initial December 13, 2018 submission, you presented a sourcing scenario wherein the SMT and final assembly operations would be performed in China. In your most recent submission, dated September 17, 2019, you provided two updated scenarios in which the SMT operations for both PCBAs would be conducted either in Taiwan or in a third country, such as Malaysia or Indonesia. Fitbit requests CBP’s ruling regarding the country of origin of its wearable electronic smart devices sourced by these updated scenarios. In all scenarios, the final assembly remains in China.

**ISSUE:**

What is the country of origin for the Fitbit smartwatch/fitness tracker wearable devices?

**LAW AND ANALYSIS:**

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. By enacting 19 U.S.C. § 1304, Congress intended to ensure “that the ultimate purchaser should be able to know by an inspection of the marking on the imported goods the country of which the goods is the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will.” *United States v. Friedlaender & Co.*, 27 C.C.P.A. 297, 302 (1940).

The country of origin marking requirements and the exceptions of 19 U.S.C. § 1304 are set forth in Part 134, Customs Regulations (19 C.F.R. Part 134). Section 134.1(b), Customs Regulations (19 C.F.R. § 134.1(b)), defines “country of origin” as the country of manufacture, production or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of the marking laws and regulations. A substantial transformation is said to have occurred when an article emerges from a manufacturing process with a name, character, or use which differs from the original material subjected to the process. *United States v. Gibson-Thomsen Co.*, 27 C.C.P.A. 267 (C.A.D. 98) (1940); *Texas Instruments, Inc. v. United States*, 681 F.2d 778, 782 (1982).

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of the operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 6 C.I.T. 204, 573 F. Supp. 1149 (1983), *aff'd*, 741 F.2d 1368 (Fed. Cir. 1984). If the manufacturing or combining process is a minor one that leaves the identity of the imported article intact, a substantial transformation has not occurred. *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 542 F. Supp. 1026 (1982).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item’s components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, or use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process may be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

Substantial transformation, including the “name, character and use” test, was also at issue in *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, *aff’d*, 989 F.2d 1201 (Fed. Cir. 1993). Therein, the Court of International Trade determined that certain mechanics’ tools did not undergo substantial transformation in the United States, and therefore, were not exempt from the marking requirements set forth in 19 U.S.C. § 1304. The court found that there was no change in name because each article as imported had the same name in the completed tool. The court also found that there was no change in character because the articles, which were either hot-forged or cold-formed into its final shape in Taiwan, remained the same after heat treatment, electroplating, and assembly in the United States. The court further determined that the use of the imported articles was predetermined at the time of entry – noting that each component was intended to be incorporated in a particular finished mechanics’ hand tool, except for one exhibit. Lastly, the court rejected the Plaintiff’s claim that the value added in the United States was relatively significant to the operation in Taiwan so that that substantial transformation should be found, noting that such a finding could lead to inconsistent marking requirements for importers who perform exactly the same processes on imported merchandise, but sell at different prices. *Id.*

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade interpreted the meaning of “substantial transformation.” *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States and assembled into the finished Generation II flashlight. The *Energizer* court reviewed the “name, character and use” test utilized in determining whether a substantial transformation had occurred and noted, citing *Uniroyal, Inc.*, 3 C.I.T. at 226, that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. at 311-312. Furthermore, courts have considered the nature of the assembly, *i.e.*, whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a predetermined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. Virtually all of the components of the military Generation II flashlight, including the most important component, the LED, were of Chinese origin. Thus, the court determined that China was the correct country of origin of the finished Generation II flashlights for purposes of government procurement.

The Court of International Trade has also looked at the essential character of an article to determine whether its identity has been substantially transformed through assembly or processing. For example, in *Uniroyal, Inc. v. United States*, 3 C.I.T. at 225, the court held that imported shoe uppers added to an outer sole in the United States were the “very essence of the finished shoe” and thus the character of the product remained unchanged and did not undergo substantial transformation in the United States. Similarly, in *National Juice Products Association v. United States*, 10 C.I.T. 48, 61, 628 F. Supp. 978, 991 (1986), the court held that imported orange juice concentrate “imparts the essential character” to the completed orange juice and thus was not substantially transformed into a product of the United States.

In C.S.D. 85-25, 19 Cust. Bull. 844 (1985), CBP held that for purposes of the Generalized System of Preferences, the assembly of a large number of fabricated components onto a printed circuit board in a process involving a considerable amount of time and skill resulted in a substantial transformation. In that case, in excess of 50 discrete fabricated components (such as resistors, capacitors, diodes, integrated circuits, sockets, and connectors) were assembled onto a PCB. CBP determined that the assembly of the PCBA involved a very large number of components and a significant number of different operations, required a relatively significant period of time as well as skill, attention to detail, and quality control, and resulted in significant economic benefit to the beneficiary developing country from the standpoint of both value added to the PCBA and the overall employment generated thereby.

Per your most recent submission dated September 17, 2019, Fitbit requests confirmation that country of origin would result from where the SMT takes place, whether that be in Taiwan or in another third country, such as Malaysia or Indonesia. In support of this claim, you cite HQ H287548, dated March 23, 2018 and New York Ruling Letter (“NY”) N303008, dated March 8, 2019.

In HQ H287548, CBP considered the country of origin of a monochrome laser printer assembled in the United States with Vietnamese subassemblies and a Japanese-origin PCBA and firmware. In that ruling, CBP determined that the Japanese-origin PCBA and firmware together embodied the essential character of the laser printer because the firmware provided the control program for the printers and enabled the main PCBA to function as the electronic “brains” of the printers by controlling all printer functions. Moreover, the production of the subcomponents in Vietnam was inexpensive and did not require a sophisticated skill set to effect production. Likewise, the final manufacturing in the United States, which was concluded in 40 minutes (including testing), did not rise to the level of complex processes necessary for a substantial transformation to occur. Therefore, the country of origin of the laser printers was Japan for government procurement purposes.

In NY N303008, CBP considered the country of origin of cellphones that were produced in three stages. First, the PCBA was manufactured using SMT, tested, and loaded with the operating system in Taiwan, Malaysia, or Vietnam. Second, in China, the hardware was assembled together with the PCBA, housing, screen, keys/keypads, USB connectors, battery, and antenna, and then tested again. Third, the assembled devices were flashed with any customer-specific software in China and then packaged with peripherals in the United States. CBP held

that PCBA imparted the essential character to the cellphones and that the assembly operations in China and the United States did not result in a substantial transformation of the PCBA. Therefore, the cellphones were considered a product of Taiwan, Malaysia, or Vietnam, depending upon which country the SMT processes took place.

Similarly, HQ H301910, dated August 5, 2019, concerned the country of origin of mailing machine engines used in certain postage meters. In that ruling, the body of the engine was assembled in China and then shipped to Japan where the Japanese-origin PCBA, print head, and print control and diagnostic firmware were installed. Testing and packaging also occurred in Japan. CBP determined that the main PCBA, the print control firmware, and the print head constituted the primary and fundamental essence of the mailing machine engine because these components controlled the engine's function, operations, and enabled the printing of the correct postage. In particular, the main PCBA itself was composed of components essential to the fundamental function and primary purpose of the engine including the CPU, the memory, and the Field-Programmable Gate Array - all of which combined to form the "brain" of the machine. CBP held that, inasmuch as the main PCBA, the print control firmware, and the print head were all produced in Japan, the country of origin of the mailing engine machine was Japan.

We find that the instant case is similar to HQ H287548, NY N303008, and HQ H301910. In this case, the PCBAs impart the essential character of the smartwatches/fitness trackers. Here, the electronic components from Taiwan and the Philippines are incorporated into the PCBAs by SMT to form the "brain" of the device that enables the device to operate as intended. Specifically, the main PCBA incorporates the Bluetooth transceiver and the CPU, together allowing the device to process information and communicate with the user and Fitbit's servers. This wireless communication and processing is fundamental to the primary use of the devices as smartwatches/fitness trackers. Furthermore, the accelerometer on the main PCBA and the heart rate monitor PCBA are essential for gathering information on the user's fitness, which is another distinguishing function of the Fitbit devices.

The SMT operations result in a new and different product with an overall use and function different than any one function of the individual components. Each individual component serves a particular purpose or function once incorporated into the PCBA. Prior to the SMT operations, these components are stand-alone, general use items. For example, the Bluetooth transceivers are available to other customers and some are used in devices other than wearable smart devices. Only after they are assembled with other components on the PCBA do the Bluetooth transceivers serve Fitbit's particular function of exchanging data gathered by the device's sensors with the user's paired mobile phone. Furthermore, once the PCBA becomes populated, it loses its character and identity as a blank platform used for holding and assembling all of the communications, processing, and electronic subcomponents, and becomes identified as a printed circuit board assembly. It is also during the SMT process that Fitbit's software is installed in the PCBA. Until the PCBA is created, the device will not have the character or use of a smart device used for fitness tracking. The components cannot individually carry out the functions of a device suitable as a smart watch or for tracking the user's fitness and activity. The unique and full functionality of Fitbit's devices is only accessed once the components and subassemblies are integrated and populated into the PCBA. By being incorporated into the PCBA, the individual parts lose their identity and become an integral part of the new article.

The final assembly that occurs in China does not render the PCBAs into a product with a new name, character, or use. Attaching the PCBAs into the housing with the vibration motor, battery, display, and wristband does not alter their functional or physical attributes. Upon importation into China, the PCBAs have a predetermined end-use as the electronic “brain” of the Fitbit devices, consistent with the court’s analysis in *Energizer*. Additionally, the assembly operations in China are neither complex nor time intensive. The workers in China require little training to perform their individual task along the assembly line. Although the SMT process is fully automated and lasts merely six minutes, it requires complex, expensive equipment and a high level of expertise. The SMT process also involves more components and subassemblies in manufacturing the PCBAs than the final assembly in China. Therefore, we find that the SMT operations constitute a complex assembly process that results in a substantial transformation of the electronic components from Taiwan and the Philippines into a new and different article of commerce with a new name, character, and use distinct from the components. The country of origin for the subject Fitbit devices will be where the PCBAs are manufactured by SMT, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

**HOLDING:**

Based on the facts provided, the country of origin of Fitbit’s wirelessly-communicative, wearable electronic smart devices is where the PCBAs are manufactured by surface-mount technology, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

Sincerely,

Yuliya A. Gulis, Chief  
Food, Textiles and Marking Branch

HQ H302801

October 3, 2019

OT:RR:CTF:FTM H302801 TJS

CATEGORY: Origin

Mr. John R. Shane, Esq.  
Wiley Rein LLP  
1776 K Street, N.W.  
Washington, DC 20006

RE: Country of Origin of Certain Wearable Electronic Smart Devices; Substantial Transformation

Dear Mr. Shane:

This is in response to your correspondence, dated December 13, 2018, requesting a binding ruling, on behalf of Fitbit, Inc. ("Fitbit"), concerning the country of origin of certain wirelessly-communicative, wearable electronic smart devices.<sup>1</sup> You provided additional information to our office during our meeting on September 13, 2019 and filed supplemental submissions in April 2019, May 2019, and on September 17, 2019. Our ruling is set forth below.

You have asked that certain information submitted in connection with this ruling request be treated as confidential. Inasmuch as this request conformed to the requirements of 19 C.F.R. § 177.2(b)(7), your request for confidentiality was approved by correspondence from this office, dated June 3, 2019. Specifically, we granted your request for confidential treatment for the images provided in your initial submission; for the data and diagrams provided on April 12, 2019; and for certain supplier, cost, production and value information specified in your May 24, 2019, and September 17, 2019 submissions.

#### FACTS:

According to your submission, Fitbit manufactures wirelessly-communicative, wearable electronic smart devices. Specifically, the Fitbit devices at issue are two styles of Bluetooth-enabled smartwatches/fitness trackers, referenced as Style A and Style B. These smartwatches/fitness trackers will be comprised of components from Taiwan, China, and the Philippines, as follows:

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<sup>1</sup> Your request was forwarded to this office by the National Commodity Specialist Division.

- Produced in Taiwan: The Bluetooth radio transceiver; central processing unit (“CPU”); printed circuit board; memory; and certain task-specific integrated circuits.
- Produced in China: The touchscreen display; vibration motor; rechargeable lithium ion battery; plastic/aluminum housing; and the wristband.
- Produced in the Philippines: The accelerometer and certain task-specific integrated circuits.

Style A devices use a combined Bluetooth transceiver/CPU component while Style B devices use separate Bluetooth transceiver and CPU components. You indicate that the combined transceiver/CPU component incorporated in Style A is offered to other customers, despite Fitbit having a heavy influence on the development of the component and being the sole customer as of our September 13, 2019 meeting. For Style B, Fitbit purchases an “off-the-shelf” Bluetooth transceiver from the manufacturer that is used in other devices, including non-wearable devices.

Surface-mount technology (“SMT”) is used to load a raw printed circuit board (“PCB”) with diodes, transistors, capacitors, resistors, memory chips, and other task-specific integrated circuits. Once the PCB is fully populated, it becomes known as a printed circuit board assembly (“PCBA”). According to your September 17, 2019 submission, both styles contain two PCBAs. The main PCBA includes the Bluetooth transceiver, Wi-Fi components, CPU, memory, the accelerometer, and other task-specific integrated circuits that gauge battery life and regulate power flow. The smaller, auxiliary PCBA focuses on the heart rate monitoring functions. During this SMT process, Fitbit would also install a limited software program that allows the user to set up the device and download the full operating system from Fitbit’s servers in the United States. The operating system for the devices is developed in the United States. The fully automated SMT process will take approximately six minutes to complete the main PCBA and two minutes to complete the heart rate monitor PCBA.

Final assembly operations occur on a typical assembly line and will take approximately seventeen minutes to complete one device. The assembly operations for the two product types differ slightly, but in both cases involve cleaning and laying out the housing and then installing the housing with the heart rate monitor PCBA, main PCBA, vibration motor, battery, and display. After the unit is assembled, it is tested and the wristband is attached. Finally, the product is packaged and readied for shipping. You state that the assembly workers in China require very little education or training. A high school diploma is not required and training takes about one to two weeks to become fully proficient in highly specific tasks.

In your initial December 13, 2018 submission, you presented a sourcing scenario wherein the SMT and final assembly operations would be performed in China. In your most recent submission, dated September 17, 2019, you provided two updated scenarios in which the SMT operations for both PCBAs would be conducted either in Taiwan or in a third country, such as Malaysia or Indonesia. Fitbit requests CBP’s ruling regarding the country of origin of its wearable electronic smart devices sourced by these updated scenarios. In all scenarios, the final assembly remains in China.

**ISSUE:**

What is the country of origin for the Fitbit smartwatch/fitness tracker wearable devices?

**LAW AND ANALYSIS:**

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. By enacting 19 U.S.C. § 1304, Congress intended to ensure “that the ultimate purchaser should be able to know by an inspection of the marking on the imported goods the country of which the goods is the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will.” *United States v. Friedlaender & Co.*, 27 C.C.P.A. 297, 302 (1940).

The country of origin marking requirements and the exceptions of 19 U.S.C. § 1304 are set forth in Part 134, Customs Regulations (19 C.F.R. Part 134). Section 134.1(b), Customs Regulations (19 C.F.R. § 134.1(b)), defines “country of origin” as the country of manufacture, production or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of the marking laws and regulations. A substantial transformation is said to have occurred when an article emerges from a manufacturing process with a name, character, or use which differs from the original material subjected to the process. *United States v. Gibson-Thomsen Co.*, 27 C.C.P.A. 267 (C.A.D. 98) (1940); *Texas Instruments, Inc. v. United States*, 681 F.2d 778, 782 (1982).

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of the operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 6 C.I.T. 204, 573 F. Supp. 1149 (1983), aff'd, 741 F.2d 1368 (Fed. Cir. 1984). If the manufacturing or combining process is a minor one that leaves the identity of the imported article intact, a substantial transformation has not occurred. *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 542 F. Supp. 1026 (1982).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item’s components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, or use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process may be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

Substantial transformation, including the “name, character and use” test, was also at issue in *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, *aff’d*, 989 F.2d 1201 (Fed. Cir. 1993). Therein, the Court of International Trade determined that certain mechanics’ tools did not undergo substantial transformation in the United States, and therefore, were not exempt from the marking requirements set forth in 19 U.S.C. § 1304. The court found that there was no change in name because each article as imported had the same name in the completed tool. The court also found that there was no change in character because the articles, which were either hot-forged or cold-formed into its final shape in Taiwan, remained the same after heat treatment, electroplating, and assembly in the United States. The court further determined that the use of the imported articles was predetermined at the time of entry – noting that each component was intended to be incorporated in a particular finished mechanics’ hand tool, except for one exhibit. Lastly, the court rejected the Plaintiff’s claim that the value added in the United States was relatively significant to the operation in Taiwan so that that substantial transformation should be found, noting that such a finding could lead to inconsistent marking requirements for importers who perform exactly the same processes on imported merchandise, but sell at different prices. *Id.*

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade interpreted the meaning of “substantial transformation.” *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States and assembled into the finished Generation II flashlight. The *Energizer* court reviewed the “name, character and use” test utilized in determining whether a substantial transformation had occurred and noted, citing *Uniroyal, Inc.*, 3 C.I.T. at 226, that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. at 311-312. Furthermore, courts have considered the nature of the assembly, *i.e.*, whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a predetermined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. Virtually all of the components of the military Generation II flashlight, including the most important component, the LED, were of Chinese origin. Thus, the court determined that China was the correct country of origin of the finished Generation II flashlights for purposes of government procurement.

The Court of International Trade has also looked at the essential character of an article to determine whether its identity has been substantially transformed through assembly or processing. For example, in *Uniroyal, Inc. v. United States*, 3 C.I.T. at 225, the court held that imported shoe uppers added to an outer sole in the United States were the “very essence of the finished shoe” and thus the character of the product remained unchanged and did not undergo substantial transformation in the United States. Similarly, in *National Juice Products Association v. United States*, 10 C.I.T. 48, 61, 628 F. Supp. 978, 991 (1986), the court held that imported orange juice concentrate “imparts the essential character” to the completed orange juice and thus was not substantially transformed into a product of the United States.

In C.S.D. 85-25, 19 Cust. Bull. 844 (1985), CBP held that for purposes of the Generalized System of Preferences, the assembly of a large number of fabricated components onto a printed circuit board in a process involving a considerable amount of time and skill resulted in a substantial transformation. In that case, in excess of 50 discrete fabricated components (such as resistors, capacitors, diodes, integrated circuits, sockets, and connectors) were assembled onto a PCB. CBP determined that the assembly of the PCBA involved a very large number of components and a significant number of different operations, required a relatively significant period of time as well as skill, attention to detail, and quality control, and resulted in significant economic benefit to the beneficiary developing country from the standpoint of both value added to the PCBA and the overall employment generated thereby.

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In NY N303008, CBP considered the country of origin of cellphones that were produced in three stages. First, the PCBA was manufactured using SMT, tested, and loaded with the operating system in Taiwan, Malaysia, or Vietnam. Second, in China, the hardware was assembled together with the PCBA, housing, screen, keys/keypads, USB connectors, battery, and antenna, and then tested again. Third, the assembled devices were flashed with any customer-specific software in China and then packaged with peripherals in the United States. CBP held

that PCBA imparted the essential character to the cellphones and that the assembly operations in China and the United States did not result in a substantial transformation of the PCBA. Therefore, the cellphones were considered a product of Taiwan, Malaysia, or Vietnam, depending upon which country the SMT processes took place.

Similarly, HQ H301910, dated August 5, 2019, concerned the country of origin of mailing machine engines used in certain postage meters. In that ruling, the body of the engine was assembled in China and then shipped to Japan where the Japanese-origin PCBA, print head, and print control and diagnostic firmware were installed. Testing and packaging also occurred in Japan. CBP determined that the main PCBA, the print control firmware, and the print head constituted the primary and fundamental essence of the mailing machine engine because these components controlled the engine's function, operations, and enabled the printing of the correct postage. In particular, the main PCBA itself was composed of components essential to the fundamental function and primary purpose of the engine including the CPU, the memory, and the Field-Programmable Gate Array - all of which combined to form the "brain" of the machine. CBP held that, inasmuch as the main PCBA, the print control firmware, and the print head were all produced in Japan, the country of origin of the mailing engine machine was Japan.

We find that the instant case is similar to HQ H287548, NY N303008, and HQ H301910. In this case, the PCBAs impart the essential character of the smartwatches/fitness trackers. Here, the electronic components from Taiwan and the Philippines are incorporated into the PCBAs by SMT to form the "brain" of the device that enables the device to operate as intended. Specifically, the main PCBA incorporates the Bluetooth transceiver and the CPU, together allowing the device to process information and communicate with the user and Fitbit's servers. This wireless communication and processing is fundamental to the primary use of the devices as smartwatches/fitness trackers. Furthermore, the accelerometer on the main PCBA and the heart rate monitor PCBA are essential for gathering information on the user's fitness, which is another distinguishing function of the Fitbit devices.

The SMT operations result in a new and different product with an overall use and function different than any one function of the individual components. Each individual component serves a particular purpose or function once incorporated into the PCBA. Prior to the SMT operations, these components are stand-alone, general use items. For example, the Bluetooth transceivers are available to other customers and some are used in devices other than wearable smart devices. Only after they are assembled with other components on the PCBA do the Bluetooth transceivers serve Fitbit's particular function of exchanging data gathered by the device's sensors with the user's paired mobile phone. Furthermore, once the PCBA becomes populated, it loses its character and identity as a blank platform used for holding and assembling all of the communications, processing, and electronic subcomponents, and becomes identified as a printed circuit board assembly. It is also during the SMT process that Fitbit's software is installed in the PCBA. Until the PCBA is created, the device will not have the character or use of a smart device used for fitness tracking. The components cannot individually carry out the functions of a device suitable as a smart watch or for tracking the user's fitness and activity. The unique and full functionality of Fitbit's devices is only accessed once the components and subassemblies are integrated and populated into the PCBA. By being incorporated into the PCBA, the individual parts lose their identity and become an integral part of the new article.

The final assembly that occurs in China does not render the PCBAs into a product with a new name, character, or use. Attaching the PCBAs into the housing with the vibration motor, battery, display, and wristband does not alter their functional or physical attributes. Upon importation into China, the PCBAs have a predetermined end-use as the electronic “brain” of the Fitbit devices, consistent with the court’s analysis in *Energizer*. Additionally, the assembly operations in China are neither complex nor time intensive. The workers in China require little training to perform their individual task along the assembly line. Although the SMT process is fully automated and lasts merely six minutes, it requires complex, expensive equipment and a high level of expertise. The SMT process also involves more components and subassemblies in manufacturing the PCBAs than the final assembly in China. Therefore, we find that the SMT operations constitute a complex assembly process that results in a substantial transformation of the electronic components from Taiwan and the Philippines into a new and different article of commerce with a new name, character, and use distinct from the components. The country of origin for the subject Fitbit devices will be where the PCBAs are manufactured by SMT, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

**HOLDING:**

Based on the facts provided, the country of origin of Fitbit’s wirelessly-communicative, wearable electronic smart devices is where the PCBAs are manufactured by surface-mount technology, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

Sincerely,

Yuliya A. Gulis, Chief  
Food, Textiles and Marking Branch

HQ H302801

October 3, 2019

OT:RR:CTF:FTM H302801 TJS

CATEGORY: Origin

Mr. John R. Shane, Esq.  
Wiley Rein LLP  
1776 K Street, N.W.  
Washington, DC 20006

RE: Country of Origin of Certain Wearable Electronic Smart Devices; Substantial Transformation

Dear Mr. Shane:

This is in response to your correspondence, dated December 13, 2018, requesting a binding ruling, on behalf of Fitbit, Inc. ("Fitbit"), concerning the country of origin of certain wirelessly-communicative, wearable electronic smart devices.<sup>1</sup> You provided additional information to our office during our meeting on September 13, 2019 and filed supplemental submissions in April 2019, May 2019, and on September 17, 2019. Our ruling is set forth below.

You have asked that certain information submitted in connection with this ruling request be treated as confidential. Inasmuch as this request conformed to the requirements of 19 C.F.R. § 177.2(b)(7), your request for confidentiality was approved by correspondence from this office, dated June 3, 2019. Specifically, we granted your request for confidential treatment for the images provided in your initial submission; for the data and diagrams provided on April 12, 2019; and for certain supplier, cost, production and value information specified in your May 24, 2019, and September 17, 2019 submissions.

#### FACTS:

According to your submission, Fitbit manufactures wirelessly-communicative, wearable electronic smart devices. Specifically, the Fitbit devices at issue are two styles of Bluetooth-enabled smartwatches/fitness trackers, referenced as Style A and Style B. These smartwatches/fitness trackers will be comprised of components from Taiwan, China, and the Philippines, as follows:

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<sup>1</sup> Your request was forwarded to this office by the National Commodity Specialist Division.

- Produced in Taiwan: The Bluetooth radio transceiver; central processing unit (“CPU”); printed circuit board; memory; and certain task-specific integrated circuits.
- Produced in China: The touchscreen display; vibration motor; rechargeable lithium ion battery; plastic/aluminum housing; and the wristband.
- Produced in the Philippines: The accelerometer and certain task-specific integrated circuits.

Style A devices use a combined Bluetooth transceiver/CPU component while Style B devices use separate Bluetooth transceiver and CPU components. You indicate that the combined transceiver/CPU component incorporated in Style A is offered to other customers, despite Fitbit having a heavy influence on the development of the component and being the sole customer as of our September 13, 2019 meeting. For Style B, Fitbit purchases an “off-the-shelf” Bluetooth transceiver from the manufacturer that is used in other devices, including non-wearable devices.

Surface-mount technology (“SMT”) is used to load a raw printed circuit board (“PCB”) with diodes, transistors, capacitors, resistors, memory chips, and other task-specific integrated circuits. Once the PCB is fully populated, it becomes known as a printed circuit board assembly (“PCBA”). According to your September 17, 2019 submission, both styles contain two PCBAs. The main PCBA includes the Bluetooth transceiver, Wi-Fi components, CPU, memory, the accelerometer, and other task-specific integrated circuits that gauge battery life and regulate power flow. The smaller, auxiliary PCBA focuses on the heart rate monitoring functions. During this SMT process, Fitbit would also install a limited software program that allows the user to set up the device and download the full operating system from Fitbit’s servers in the United States. The operating system for the devices is developed in the United States. The fully automated SMT process will take approximately six minutes to complete the main PCBA and two minutes to complete the heart rate monitor PCBA.

Final assembly operations occur on a typical assembly line and will take approximately seventeen minutes to complete one device. The assembly operations for the two product types differ slightly, but in both cases involve cleaning and laying out the housing and then installing the housing with the heart rate monitor PCBA, main PCBA, vibration motor, battery, and display. After the unit is assembled, it is tested and the wristband is attached. Finally, the product is packaged and readied for shipping. You state that the assembly workers in China require very little education or training. A high school diploma is not required and training takes about one to two weeks to become fully proficient in highly specific tasks.

In your initial December 13, 2018 submission, you presented a sourcing scenario wherein the SMT and final assembly operations would be performed in China. In your most recent submission, dated September 17, 2019, you provided two updated scenarios in which the SMT operations for both PCBAs would be conducted either in Taiwan or in a third country, such as Malaysia or Indonesia. Fitbit requests CBP’s ruling regarding the country of origin of its wearable electronic smart devices sourced by these updated scenarios. In all scenarios, the final assembly remains in China.

**ISSUE:**

What is the country of origin for the Fitbit smartwatch/fitness tracker wearable devices?

**LAW AND ANALYSIS:**

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. By enacting 19 U.S.C. § 1304, Congress intended to ensure “that the ultimate purchaser should be able to know by an inspection of the marking on the imported goods the country of which the goods is the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will.” *United States v. Friedlaender & Co.*, 27 C.C.P.A. 297, 302 (1940).

The country of origin marking requirements and the exceptions of 19 U.S.C. § 1304 are set forth in Part 134, Customs Regulations (19 C.F.R. Part 134). Section 134.1(b), Customs Regulations (19 C.F.R. § 134.1(b)), defines “country of origin” as the country of manufacture, production or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of the marking laws and regulations. A substantial transformation is said to have occurred when an article emerges from a manufacturing process with a name, character, or use which differs from the original material subjected to the process. *United States v. Gibson-Thomsen Co.*, 27 C.C.P.A. 267 (C.A.D. 98) (1940); *Texas Instruments, Inc. v. United States*, 681 F.2d 778, 782 (1982).

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of the operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 6 C.I.T. 204, 573 F. Supp. 1149 (1983), *aff'd*, 741 F.2d 1368 (Fed. Cir. 1984). If the manufacturing or combining process is a minor one that leaves the identity of the imported article intact, a substantial transformation has not occurred. *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 542 F. Supp. 1026 (1982).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item’s components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, or use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process may be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

Substantial transformation, including the “name, character and use” test, was also at issue in *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, *aff’d*, 989 F.2d 1201 (Fed. Cir. 1993). Therein, the Court of International Trade determined that certain mechanics’ tools did not undergo substantial transformation in the United States, and therefore, were not exempt from the marking requirements set forth in 19 U.S.C. § 1304. The court found that there was no change in name because each article as imported had the same name in the completed tool. The court also found that there was no change in character because the articles, which were either hot-forged or cold-formed into its final shape in Taiwan, remained the same after heat treatment, electroplating, and assembly in the United States. The court further determined that the use of the imported articles was predetermined at the time of entry – noting that each component was intended to be incorporated in a particular finished mechanics’ hand tool, except for one exhibit. Lastly, the court rejected the Plaintiff’s claim that the value added in the United States was relatively significant to the operation in Taiwan so that that substantial transformation should be found, noting that such a finding could lead to inconsistent marking requirements for importers who perform exactly the same processes on imported merchandise, but sell at different prices. *Id.*

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade interpreted the meaning of “substantial transformation.” *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States and assembled into the finished Generation II flashlight. The *Energizer* court reviewed the “name, character and use” test utilized in determining whether a substantial transformation had occurred and noted, citing *Uniroyal, Inc.*, 3 C.I.T. at 226, that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. at 311-312. Furthermore, courts have considered the nature of the assembly, *i.e.*, whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a predetermined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. Virtually all of the components of the military Generation II flashlight, including the most important component, the LED, were of Chinese origin. Thus, the court determined that China was the correct country of origin of the finished Generation II flashlights for purposes of government procurement.

The Court of International Trade has also looked at the essential character of an article to determine whether its identity has been substantially transformed through assembly or processing. For example, in *Uniroyal, Inc. v. United States*, 3 C.I.T. at 225, the court held that imported shoe uppers added to an outer sole in the United States were the “very essence of the finished shoe” and thus the character of the product remained unchanged and did not undergo substantial transformation in the United States. Similarly, in *National Juice Products Association v. United States*, 10 C.I.T. 48, 61, 628 F. Supp. 978, 991 (1986), the court held that imported orange juice concentrate “imparts the essential character” to the completed orange juice and thus was not substantially transformed into a product of the United States.

In C.S.D. 85-25, 19 Cust. Bull. 844 (1985), CBP held that for purposes of the Generalized System of Preferences, the assembly of a large number of fabricated components onto a printed circuit board in a process involving a considerable amount of time and skill resulted in a substantial transformation. In that case, in excess of 50 discrete fabricated components (such as resistors, capacitors, diodes, integrated circuits, sockets, and connectors) were assembled onto a PCB. CBP determined that the assembly of the PCBA involved a very large number of components and a significant number of different operations, required a relatively significant period of time as well as skill, attention to detail, and quality control, and resulted in significant economic benefit to the beneficiary developing country from the standpoint of both value added to the PCBA and the overall employment generated thereby.

Per your most recent submission dated September 17, 2019, Fitbit requests confirmation that country of origin would result from where the SMT takes place, whether that be in Taiwan or in another third country, such as Malaysia or Indonesia. In support of this claim, you cite HQ H287548, dated March 23, 2018 and New York Ruling Letter (“NY”) N303008, dated March 8, 2019.

In HQ H287548, CBP considered the country of origin of a monochrome laser printer assembled in the United States with Vietnamese subassemblies and a Japanese-origin PCBA and firmware. In that ruling, CBP determined that the Japanese-origin PCBA and firmware together embodied the essential character of the laser printer because the firmware provided the control program for the printers and enabled the main PCBA to function as the electronic “brains” of the printers by controlling all printer functions. Moreover, the production of the subcomponents in Vietnam was inexpensive and did not require a sophisticated skill set to effect production. Likewise, the final manufacturing in the United States, which was concluded in 40 minutes (including testing), did not rise to the level of complex processes necessary for a substantial transformation to occur. Therefore, the country of origin of the laser printers was Japan for government procurement purposes.

In NY N303008, CBP considered the country of origin of cellphones that were produced in three stages. First, the PCBA was manufactured using SMT, tested, and loaded with the operating system in Taiwan, Malaysia, or Vietnam. Second, in China, the hardware was assembled together with the PCBA, housing, screen, keys/keypads, USB connectors, battery, and antenna, and then tested again. Third, the assembled devices were flashed with any customer-specific software in China and then packaged with peripherals in the United States. CBP held

that PCBA imparted the essential character to the cellphones and that the assembly operations in China and the United States did not result in a substantial transformation of the PCBA. Therefore, the cellphones were considered a product of Taiwan, Malaysia, or Vietnam, depending upon which country the SMT processes took place.

Similarly, HQ H301910, dated August 5, 2019, concerned the country of origin of mailing machine engines used in certain postage meters. In that ruling, the body of the engine was assembled in China and then shipped to Japan where the Japanese-origin PCBA, print head, and print control and diagnostic firmware were installed. Testing and packaging also occurred in Japan. CBP determined that the main PCBA, the print control firmware, and the print head constituted the primary and fundamental essence of the mailing machine engine because these components controlled the engine's function, operations, and enabled the printing of the correct postage. In particular, the main PCBA itself was composed of components essential to the fundamental function and primary purpose of the engine including the CPU, the memory, and the Field-Programmable Gate Array - all of which combined to form the "brain" of the machine. CBP held that, inasmuch as the main PCBA, the print control firmware, and the print head were all produced in Japan, the country of origin of the mailing engine machine was Japan.

We find that the instant case is similar to HQ H287548, NY N303008, and HQ H301910. In this case, the PCBAs impart the essential character of the smartwatches/fitness trackers. Here, the electronic components from Taiwan and the Philippines are incorporated into the PCBAs by SMT to form the "brain" of the device that enables the device to operate as intended. Specifically, the main PCBA incorporates the Bluetooth transceiver and the CPU, together allowing the device to process information and communicate with the user and Fitbit's servers. This wireless communication and processing is fundamental to the primary use of the devices as smartwatches/fitness trackers. Furthermore, the accelerometer on the main PCBA and the heart rate monitor PCBA are essential for gathering information on the user's fitness, which is another distinguishing function of the Fitbit devices.

The SMT operations result in a new and different product with an overall use and function different than any one function of the individual components. Each individual component serves a particular purpose or function once incorporated into the PCBA. Prior to the SMT operations, these components are stand-alone, general use items. For example, the Bluetooth transceivers are available to other customers and some are used in devices other than wearable smart devices. Only after they are assembled with other components on the PCBA do the Bluetooth transceivers serve Fitbit's particular function of exchanging data gathered by the device's sensors with the user's paired mobile phone. Furthermore, once the PCBA becomes populated, it loses its character and identity as a blank platform used for holding and assembling all of the communications, processing, and electronic subcomponents, and becomes identified as a printed circuit board assembly. It is also during the SMT process that Fitbit's software is installed in the PCBA. Until the PCBA is created, the device will not have the character or use of a smart device used for fitness tracking. The components cannot individually carry out the functions of a device suitable as a smart watch or for tracking the user's fitness and activity. The unique and full functionality of Fitbit's devices is only accessed once the components and subassemblies are integrated and populated into the PCBA. By being incorporated into the PCBA, the individual parts lose their identity and become an integral part of the new article.

The final assembly that occurs in China does not render the PCBAs into a product with a new name, character, or use. Attaching the PCBAs into the housing with the vibration motor, battery, display, and wristband does not alter their functional or physical attributes. Upon importation into China, the PCBAs have a predetermined end-use as the electronic “brain” of the Fitbit devices, consistent with the court’s analysis in *Energizer*. Additionally, the assembly operations in China are neither complex nor time intensive. The workers in China require little training to perform their individual task along the assembly line. Although the SMT process is fully automated and lasts merely six minutes, it requires complex, expensive equipment and a high level of expertise. The SMT process also involves more components and subassemblies in manufacturing the PCBAs than the final assembly in China. Therefore, we find that the SMT operations constitute a complex assembly process that results in a substantial transformation of the electronic components from Taiwan and the Philippines into a new and different article of commerce with a new name, character, and use distinct from the components. The country of origin for the subject Fitbit devices will be where the PCBAs are manufactured by SMT, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

**HOLDING:**

Based on the facts provided, the country of origin of Fitbit’s wirelessly-communicative, wearable electronic smart devices is where the PCBAs are manufactured by surface-mount technology, whether that be in Taiwan or in another country such as Malaysia or Indonesia.

Sincerely,

Yuliya A. Gulis, Chief  
Food, Textiles and Marking Branch



**U.S. Customs and Border Protection**

HQ H302821

July 26, 2019

**OT:RR:CTF:VS H302821 EE**

**CATEGORY:** Valuation

Ralph Garcia  
Volvo Car U.S. Operations Inc.  
1801 Volvo Car Drive Building 300  
Ridgeville, SC 29472

**RE:** Passenger Vehicles; Country of Origin Marking; Section 301 Measures

Dear Mr. Garcia:

This is in response to your correspondence, dated March 3, 2019, in which you request a ruling concerning the country of origin of a certain passenger vehicles imported into the United States from Sweden. Your request, submitted as an electronic ruling request on January 10, 2019, was forwarded to this office from the National Commodity Specialist Division for review. Our ruling is set forth below.

**FACTS:**

Volvo Cars, headquartered in Gothenburg, Sweden, has a number of dealers in the United States as well as a manufacturing plant in South Carolina. Passenger vehicles will be imported to the United States from Sweden after assembly in Sweden as part of a knockdown operation. You state that the passenger vehicles are classifiable under subheadings 8703.60 and 8703.80, Harmonized Tariff Schedule of the United States ("HTSUS"). You provided the following description of the knockdown operation. Components from various countries will be shipped to a factory in China where certain components will be assembled into subassemblies. Subassemblies along with other major components will then be shipped to Sweden for final vehicle assembly.

The following components will be assembled in China to produce a painted body assembly:

- Body sides, doors, rear shelf and tail gate originating in Italy
- Rear view mirrors originating in Great Britain
- Headlamps originating in Slovakia
- Side marker lights from France
- “A” panel, “C” panel, and panoramic roof manufactured in China

The following components will be assembled in China to make an engine module:

- Petrol engine and sub-frame originating in Sweden
- Gear box and front suspension originating in Japan
- Front brakes originating in the United States
- Radiator and steering system manufactured in China

The following components will be assembled in China to make a rear suspension module:

- Rear sub-frame and rear electric motors originating in Sweden
- Rear suspension originating in Japan
- Rear brakes originating in Germany

The following other major components will be shipped to Sweden where they will be incorporated into the vehicle final assembly:

- Hood originating in China
- Bumpers originating in China
- Battery modules originating in China
- On board charger and inverter originating in China
- Fuel tank and fuel filler pipe originating in China
- Exhaust system originating in China
- Hoses and fuel lines originating in China
- Under body panels and heat shields originating in China
- Instrument panel originating in China
- Tunnel console originating in China
- Seats originating in China
- High voltage cables originating in Europe (country not determined)
- Wheels originating in Europe (country not determined)

You provided an illustration of the knockdown components. You state that the illustration does not represent the actual model but rather it illustrates the complexity of the operation. You state that at no time will the vehicles be assembled in China and broken down. The final vehicle assembly will take place in Sweden where you claim that the operation will result in a new and different article of commerce.

You state that the components and subassemblies may be shipped in two

methods: 1) all components necessary to build one vehicle shipped together in two containers as one shipment; or 2) sufficient components to build the number of vehicles in the production plan as separate shipments.

**ISSUE:**

What is the country of origin of the passenger vehicles imported from Sweden for purposes of marking and for purposes of application of the Section 301 measures for goods under subheadings 8703.60 and 8703.80, HTSUS?

**LAW AND ANALYSIS:**

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. § 1304), provides that, unless excepted, every article of foreign origin (or its container) imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit in such a manner as to indicate to an ultimate purchaser in the United States the English name of the country of origin of the article. The regulations implementing the requirements and exception to 19 U.S.C. § 1304 are set forth in Part 134, U.S. Customs and Border Protection Regulations (19 C.F.R. Part 134).

19 C.F.R. § 134.1(b) provides as follows:

“Country of origin” means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of this part...

Effective July 6, 2018, the Office of the United States Trade Representative (“USTR”) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (June 20, 2018). Later, the USTR imposed additional tariffs on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), U.S. Note 20(f) and U.S. Note 20(g), HTSUS.<sup>1</sup> The corresponding products of China that are provided for in subheadings 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04, HTSUS, and are classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to Subchapter III, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

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<sup>1</sup> For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974).

Among the subheadings listed in U.S. Note 20(b) of Subchapter III, Chapter 99, HTSUS, are 8703.60.00 and 8703.80.00, HTSUS. When determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation has occurred is whether an article emerges from a process with a new name, character, or use, different from that possessed by the articles prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993).

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 573 F. Supp. 1149 (Ct. Int'l Trade 1983), aff'd, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. See C.S.D. 80-111, C.S.D. 85-25, C.S.D. 89-110, C.S.D. 89-118, C.S.D. 90-51, and C.S.D. 90-97. If the manufacturing or combining process is a minor one which leaves the identity of the article intact, a substantial transformation has not occurred. *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 542 F. Supp. 1026 (1982), aff'd 702 F. 2d 1022 (Fed. Cir. 1983).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, U.S. Customs and Border Protection ("CBP") considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade ("CIT") interpreted the meaning of "substantial transformation." *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the "name, character and use" test utilized in determining whether a substantial transformation has occurred and noted, citing *Uniroyal, Inc. v. United States*, 3 C.I.T. at 226, 542 F. Supp. at 1031, aff'd, 702 F.2d 1022 (Fed. Cir.

1983), that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993).

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a pre-determined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer’s imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights under the government procurement provisions of the TAA.

In Headquarters Ruling Letter (“HQ”) HQ H155115, dated May 24, 2011, CBP found that assembly in the United States of an imported glider, and other imported and U.S.-origin parts constituted a substantial transformation into the electrical vehicle, an article with a new name, character, and use. The electrical vehicle was composed of 31 components, of which 14 were of U.S.-origin. The assembly process in the United States was complex and time-consuming and involved a significant U.S. contribution in both parts and labor. Based upon these facts, CBP found that the country of origin of the electric vehicle was the United States. See also HQ H229157, dated November 16, 2012.

In HQ H118435, the U.S. was determined to be the country of origin for purposes of U.S. Government procurement for a line of electric golf and recreational vehicles. In that case, the chassis, plastic body parts, and various miscellaneous pieces of plastic trim were imported into the U.S. from China and assembled with U.S.-origin battery packs, motors, electronics, wiring assemblies, seats, and chargers. The vehicles were composed of approximately 53 to 62 components, of which between 12 and 17 were of U.S. origin. HQ H118435 held that none of the imported parts could function as an electric vehicle on their own and needed to be assembled with other necessary U.S. components. Additionally, it was held that given the complexity and duration of the U.S. manufacturing process, the operations were more than mere assembly. It was determined that a substantial transformation occurred, and further, the critical components to making an electric vehicle – battery pack, motor, electronics, wiring assemblies, and charger – were of U.S.-origin.

In HQ H022169, CBP found that an imported mini-truck glider was substantially transformed as a result of assembly operations performed in the U.S. to produce an electric mini-truck. The decision was based on the fact that, under the described assembly process, the imported glider lost its individual identity and became an integral part of a new article possessing a new name, character, and use. In addition, a substantial number of the components added to the imported glider were of U.S. origin. The glider was assembled with approximately 87 different components, 68 of which were of U.S. origin. The batteries, charger, and gear box were of U.S. origin, and other major parts, including the electric motor and brakes, were of foreign origin.

In the instant case, five subassemblies are manufactured in China from components from various countries. The five subassemblies and other components from China with the exception of high voltage cables and wheels from Europe will then be assembled into the passenger vehicles in Sweden. Unlike the situation in HQ H155115, HQ H118435, and HQ H022169, in this case, the complex assembly process occurs when producing the subassemblies in China. With respect to the final assembly, we find the manufacturing processes of the five subassemblies in Sweden do not rise to the level of complex processes necessary for a substantial transformation to occur. Further, the five subassemblies from China have a pre-determined end-use and do not undergo a change in use due to the assembly process in Sweden. Accordingly, we find that based on the information provided, the subassemblies and the foreign parts that are imported to Sweden are not substantially transformed as a result of the assembly operations performed in Sweden.

**HOLDING:**

The country of origin of the passenger vehicles for purposes of marking and for purposes of the application of subheading 9903.88.01, HTSUS, is China.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch

HQ H303279

September 10, 2019

CLA-2 OT:RR:CTF:VS H303279 EGJ

CATEGORY: Origin

Mr. Jason Waite  
Alston & Bird  
950 F Street NW  
Washington, D.C 20004-1404

RE: Country of origin of super fine mica flake; Section 301 trade remedy;  
9903.88.03, HTSUS

Dear Mr. Waite:

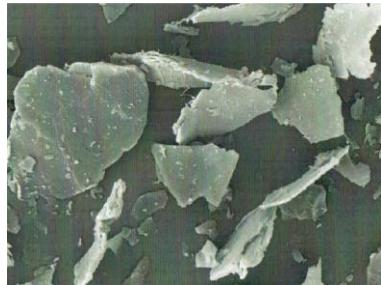
This is in response to your request, dated March 21, 2019, on behalf of your client, Imerys Performance Additives - North America ("Imerys"), regarding the country of origin of super fine mica flake. In your letter, you request a binding ruling on the applicability of subheading 9903.88.03 of the Harmonized Tariff Schedule of the United States ("HTSUS"), a Section 301 trade remedy provision, to proposed transactions involving super fine mica flake.

FACTS:

Crude muscovite is mined and then processed in China. The crude muscovite is broken down into coarse mica to an extent that 10% of the coarse mica flakes (by mass) will not pass a 10 mesh screen, and 10% of the coarse mica flakes will pass a 60 mesh screen. Imerys plans to import the coarse mica flakes into Canada for further processing. At importation, the coarse mica has a physical structure which consists of layers, or plates, as shown in the magnified picture below:



In Canada, Imerys processes the coarse mica flakes in a dedicated process line. The coarse mica is transferred to a jet mill, where a jet of air is used to impact the coarse flakes into each other. Jet milling continues until the flakes are milled to 92 to 95% -325 mesh size fraction (*i.e.*, between 92% and 95% of the mica, by mass, will pass through a 325 mesh screen). Imerys refers to this process as delamination, as the layers of coarse mica are divided up into much thinner flakes of super fine mica. The milled mica is then screened and packaged for shipment to customers, including customers in the United States. A magnified picture of the super fine mica is provided below:



Imerys follows customer specifications for its super fine mica in order to prepare it for its relevant applications. Specifically, Imerys' milling and screening processes significantly reduce the particle size of the coarse mica flakes, reduce their bulk density, and increase their brightness. The Canadian manufacturing changes the physical properties of the mica, including its particle size distribution, particle shape, and brightness. These processes yield a finished product which meets Imerys' and its customers' specifications for high brightness, low yellowness, defined steepness in particle size distribution, low defined bulk density, high aspect ratio, and high purity.

As a result of the processing conducted by Imerys, the resulting super fine mica is capable of use in specialized industrial applications. It is most commonly used in the paint and polymer industries, and it has applications in the rubber and sealants industry. In the paint industry, super fine mica improves exterior durability and increases barrier properties such as moisture resistance, flexibility, and adhesion. In plastics applications, super fine mica improves thermal and dielectric properties, impact strength, and stiffness. In rubber applications, it prevents undesirable adhesion of rubber compounds during the vulcanization process. In adhesives and sealants, it provides crack resistance and reduces shrinkage.

In contrast, you stated that coarse mica flakes are not fit for use in any of these applications. In addition to their utility as a starting material for super fine mica and other mica products, coarse mica flakes are a distinct, finished, commercially viable product, as they are used to prevent loss of circulation and seepage in drilling applications. Specifically, coarse mica flakes are added to drilling fluids to prevent or correct loss of drilling fluids through porous formations.

Due to its significantly smaller particle size, super fine mica is not fit for use in drilling applications. Also, super fine mica cannot be used as a starting material for

other mica products with a coarseness between that of coarse mica flakes and super fine mica. Finally, Imerys notes that the price point per metric ton of super fine mica is more than three times greater than the price point per metric ton of coarse mica.

ISSUE:

What is the country of origin of the imported super fine mica for the purpose of applying the Section 301 trade remedy under subheading 9903.88.03, HTSUS?

LAW AND ANALYSIS:

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (June 20, 2018). Later, the USTR imposed additional tariffs on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), U.S. Note 20(f) and U.S. Note 20(g), HTSUS.<sup>1</sup> The corresponding products of China that are provided for in subheadings 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04, and are classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to Subchapter III, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings. Products of China classifiable in subheading 6810.99.00, HTSUS, are subject to the applicable duty rate plus an additional 10 percent under subheading 9903.88.03, HTSUS.

When determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character or use, different from that possessed by the article prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993). Applying the name, character and use test to the instant merchandise, we find no significant changes in the name when coarse mica flakes are processed into super fine mica. Both products have the name "mica."

Turning next to character and use, we note that the courts have held that when the properties and uses of a product are predetermined by the material from which it was made, no substantial transformation occurs. For example, in *Superior Wire v. United States*, 669 F. Supp. 472 (Ct. Int'l Trade 1987) ("Superior Wire"), aff'd 867 F.2d

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<sup>1</sup> For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974).

1409 (Fed. Cir. 1989), wire rod in coils was shipped to Canada where it was drawn into finished wire. The tensile strength of the final product was increased by approximately 30 to 40 percent as the rod was reduced in cross-sectional area by about 30 percent and was elongated. The court determined that the drawing operation did not result in a substantial transformation, pointing out that the properties of the wire rod and its uses were determined by the chemical content of the rod and the cooling processes used in its manufacture, and that the wire rod dictated the final form of the finished wire.

Examining the character of the instant merchandise, we note that both products have the same chemical composition. Physically, the coarse mica flakes are made up of layers of finer flakes. They undergo a jet milling process which results in thinner flakes of super fine mica. In *Superior Wire*, the court did not find that drawing wire rod into wire was a change in character. 669 F. Supp. 472. Similarly, we do not find that jet milling coarse mica into super fine mica results in a change in character. See also, New York Ruling Letter (“NY”) N011170, dated June 5, 2007 (grinding manganese flake into manganese powder does not constitute a substantial transformation).

As we are not persuaded that the name or character of the product has changed, we now turn to use. The two main physical properties of the instant mica flakes which dictate its applications are: a) its plated or flakey structure, and b) its sheen. The plated and flakey structure makes mica ideal as a reinforcement material. The coarse mica flakes have two uses: to prevent seepage in oil drilling applications and to be milled into finer mica. The plated structure of the coarse mica makes it a good material to seal up pores as holes are drilled. Similarly, the structure of the super fine mica flakes makes them ideal for use in exterior paints to prevent water penetration and weathering, and the sheen brightens the pigment. In plastics, the structure works as a filler and an extender. In adhesives, the structure contributes as a sealant.

We find that the properties of the super fine mica flakes which make them appropriate for different applications are already present in the coarse mica flakes. Much like the wire rod and thin wire in *Superior Wire*, the uses of the super fine mica are predetermined by the properties of the coarse mica. 669 F. Supp. 472. Generally when the end use is predetermined, the courts have found that the use criterion does not constitute a substantial transformation. See *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308, 1319 (Ct. Int’l Trade 2016). For all of these reasons, we do not find that jet milling coarse mica flakes into super fine mica flakes constitutes a substantial transformation.

Imerys cites to numerous rulings in support of its substantial transformation arguments. These rulings relate to plastic products (polyetherketone powder in NY N111878, dated July 14, 2010), petroleum products (processed crude oil in Headquarters Ruling Letter (“HQ”) 56303, dated September 30, 2005), and food (broccoli cuts in HQ 228508, dated September 9, 1999). However, these rulings cover products which are markedly different than the mica flakes at issue here. Therefore, we do not find Imerys’ citations to these rulings to be persuasive.

Imerys does cite to cases involving metal which could be compared to the instant processing of mica flakes. In HQ 561103, dated January 20, 1999, we found chipping, hammer milling, and shaping a magnesium ingot into granules of a specific geometric shape constituted a substantial transformation. We noted that the magnesium ingot had many uses whereas the geometric granules had a specific use in desulfurization reagents. However, in NY N011170, we found that grinding manganese flake into manganese powder did not constitute a substantial transformation because neither the chemical composition nor the physical properties changed. We find that jet milling coarse mica flakes into super fine mica powder is more similar to the manganese flake processing than to the magnesium ingot processing. Therefore, we still do not find that the coarse mica is substantially transformed after jet milling.

Finally, Imerys cites to the purchase price of the super fine mica, which is more than three times the price of the coarse mica. Imerys also notes the high cost of overhead and processing the coarse mica into super fine mica. We note that while costs are additional factors which may be considered in a substantial transformation analysis, the primary test remains the name, character and use test. We do not believe that the instant processing constitutes a substantial transformation under the name, character and use test.

HOLDING:

The country of origin of the super fine mica, for purposes of the application of subheading 9903.88.03, HTSUS, is China. As the merchandise will be a product of the China, Section 301 measures will apply.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch

HQ H303529

June 6, 2019

OT:RR:CTF:VS H303529 CMR

CATEGORY: Origin

Sandra Liss Friedman, Esq.  
Barnes, Richardson & Colburn, LLP  
100 William Street, Suite 305  
New York, NY 10038

RE: Country of origin of an incomplete postage meter

Dear Ms. Friedman:

This is in response to your request, on behalf of your client, Brother Industries (USA), Inc., for a country of origin determination of an incomplete postage meter, which you also refer to as a specialized printer.

FACTS:

In their condition as imported, the incomplete postage meters function as the specialized printers that carry out the printing function in the mail handling system, of which they are a part. You identify the major components of the incomplete postage meters as the print axis, printer module base assembly, transport assembly, waste ink tray, cutter assembly, tape transport assembly, and cover assembly.

You describe the printer axis, in relevant part, as follows:

The Print Axis is an integrated print engine that aligns the print head with the media path and prints images on passing media fed into the postage meter printer, such as envelopes or continuous length tape, each of which is fed through a different path in the Print Axis. This is accomplished by the activation of motors located in the Print Axis which will move the print head to the correct position, depending on which media has been selected.

You indicate that the print axis monitors and maintains the functionality of the print head module; monitors the level of ink in the ink cartridge; and contains subassemblies necessary to carry out these functions, including "the main printed circuit board, print head cartridge, wiping station, priming station and ink delivery system." In addition, the print axis is loaded with U.S.-developed firmware to control it and to communicate with the other components of the entire mail handling system. You state that the print axis is the most expensive component of the incomplete postage meter, representing approximately 63% of the total cost of parts in the incomplete postage meter; and that the printer axis "performs the main function/output of the postage meter printer by physically printing the postal indicia on envelopes and postage tapes[.]". You indicate that the printer axis is a product of Malaysia. However, as the printer axis is produced by a third party, you are only able to provide a statement from that party that the component is a product of Malaysia and a photograph of the label on the component identifying it as a product of Malaysia.

You describe the other components of the incomplete postage meter, in relevant part, as follows:

Printer module base assembly: This subassembly consists of a metal frame for alignment and support of other subassemblies. It also contains the Distribution PWA [Printed Wire Assembly] which acts as a link between upstream power, control and data signals and downstream motors, sensors and print modules. The printer module base assembly consists of a printer frame assembly, foot, base, Distribution PWA and cable assemblies. . . .

Transport assembly: This subassembly includes a transport idler assembly and a transport belt assembly which consists of motors, drive belts, idler wheels and other non-moving components used to transfer incoming media into the printer module, align it with the print engine, and transfer it out of the printer module to a downstream stacker unit. . . .

Tape transport assembly: This subassembly consists of a motorized media path which pulls postage label tape from a continuous roll of labels and aligns and passes it through [the] Print Axis to receive a printed image. It passes the tape into the Cutter Assembly to be trimmed to the correct length for the print job. The Tape Transport Assembly consists of a tape track, tape feed assembly and tape motor assembly . . . .

Cutter assembly: This subassembly consists of a small motorized cutting blade aligned with the end of the address Tape Transport Assembly which cuts the continuous roll of postage tape label after it passes through the Print Axis. The postage tape is primarily used when a postage mark cannot be printed directly on the mail piece either because of a media transport failure or if the mail piece is

too large or irregularly shaped to pass through the normal media path. The cutter assembly consists of a cutter frame and a motor assembly . . . .

Waste ink tray: This unit consists of a foam tray and waste ink pad which collects ink discharged from the Print Axis during print head maintenance. . . .

Cover Assembly: This subassembly, consists of a series of plastic covers used as a safety barrier to prevent the user having contact with energy sources within the printer module during normal operations. It also contains several moveable covers to give the user access to internal components for normal maintenance procedures such as replacing cartridges, print heads and waste tank foam or clear media feeding errors. The Cover Assembly consists of an upper cover assembly, mid cover assembly, right side cover, front cover and deck cover . . . .

With regard to the components used in the described subassemblies, you indicate that the majority of the components used to manufacture the printer module base assembly, transport assembly, waste ink tray, cutter assembly, tape transport assembly, and cover assembly are made in China. With regard to the components used to manufacture the printer axis, you indicate that the components are sourced globally, with only 10.8% of the components being sourced in China.

In your submission, you state that the final assembly process of the subassemblies described above “consists mainly of attaching the Print Axis and the various subassemblies, for the most part using nuts and bolts, in a so-called ‘screwdriver operation,’ and electrically connecting the various subassemblies as required.” However, “[a]ll of the subassemblies, other than the print axis are assembled in China prior to the final assembly.”<sup>1</sup>

#### ISSUE:

What is the country of origin of the incomplete postage meter assembled in China?

#### LAW AND ANALYSIS:

Section 304 of the Tariff Act of 1930, as amended (19 U.S.C. 1304), provides that unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit in such a manner as to indicate to an ultimate purchaser in the United States the English name of the country of origin of the article. Congressional intent in enacting 19 U.S.C. 1304 was that the ultimate purchaser should

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<sup>1</sup> See Counsel’s email, dated May 29, 2019.

be able to know by an inspection of the markings on the imported goods the country of which the good is the product. "The evident purpose is to mark the goods so at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will." *United States v. Friedlaender & Co.*, 27 C.C.P.A. 297 at 302 (1940).

Part 134, Customs and Border Protection (CBP) Regulations (19 C.F.R. 134), implements the country of origin marking requirements and exceptions of 19 U.S.C. § 1304. Section 134.1(b), CBP Regulations (19 C.F.R. 134.1(b)), defines "country of origin" as "the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the "country of origin" within the meaning of [the marking regulations]. . . ." A substantial transformation is said to have occurred when an article emerges from a manufacturing process with a name, character, or use which differs from the original material subjected to the process. *United States v. Gibson-Thomsen Co., Inc.*, 27 C.C.P.A. 267 (C.A.D. 98) (1940); *Texas Instruments v. United States*, 681 F.2d 778, 782 (1982).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

You submit that the origin of the incomplete postage meter should be based upon the origin of the print axis as, in your view, the print axis imparts the essential character to the imported incomplete postage meter. In addition, you believe that the other subassemblies function to assist the print axis in carrying out its printing function; do not lose their identities when combined into the incomplete postage meter; and, are combined together in an assembly process that is not complex and does not result in a substantial transformation of the assembled components.

This situation differs from the situation examined by the court in *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), in which the court found that components of a flashlight did not undergo a change in name, character or use as a result of post-importation processing in the United States, and that the nature of the post-importation assembly process was not sufficiently complex to give rise to a

substantial transformation. See *Energizer*, at 1325 – 1326. In this case, with the exception of the subassembly of the print axis, the assembly of the incomplete postage meter occurs in China. The various subassemblies of the incomplete postage meter, i.e., the printer module base assembly, transport assembly, waste ink tray, cutter assembly, tape transport assembly, and cover assembly, are all assembled in China of primarily Chinese-made components. The question of the complexity of the assembly process which occurs in China is not limited to an examination of the assembly of the various subassemblies to one another, as initially presented in your submission, but includes an examination of all of the assembly processes involved in China in the production of the incomplete postage meter. As the court in *Energizer* points out, citing to *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 312 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993), and *Ran-Paige Co., Inc. v. United States*, 35 Fed. Cl. 117, 121 (1996), "case law . . . indicates that a determination of substantial transformation must be based on a totality of factors."

You submit that the various subassemblies have been manufactured to specifications which impart to them a pre-determined use as parts of the imported incomplete postage meter, and that these components do not lose their identity when combined into the finished article. We disagree. In this case, the print axis is imported into China to be joined with the other Chinese assembled subassemblies to complete the incomplete postage meter. The true question here is whether the print axis is substantially transformed when it is assembled with the other components of the incomplete postage meter, i.e., whether it undergoes a change in name, character, and use. You focus on the function and value of the print axis, however, the print axis is subsumed into and becomes part of the incomplete postage meter when it is joined with the other components in China. While the printer axis functions to print postage indicia on envelopes or postage tape, without the other components to which it is joined in China, it could not carry out its function. With regard to the value of the print axis as compared to the other components, as the court pointed out in *Energizer*, such a consideration is subsidiary and one for which the courts have been divided on whether to consider. See *Energizer*, at 1319 – 1320, citing *National Hand Tool*, 16 CIT at 312. In our view, the assembly in China to create the incomplete postage meter is extensive and complex as all of the components of the incomplete postage meter, with the exception of the print axis, are assembled in China and the final assembly of those components with the print axis component occurs in China. Based on the totality of the circumstances, a substantial transformation of the print axis occurs in China when it is joined with the other components of the incomplete postage meter. The country of origin of the incomplete postage meter is China.

HOLDING:

The country of origin of the incomplete postage meters, produced as described herein, is China.

Please note that 19 C.F.R. § 177.9(b)(1) provides that “[e]ach ruling letter is issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect. The application of a ruling letter by a CBP field office to the transaction to which it is purported to relate is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based.”

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation & Special Classification Branch

HQ H303864

December 26, 2019

CLA-2 OT:RR:CTF:VS H303864 EGJ

CATEGORY: Origin

Thomas M. Keating  
Rock Trade Law LLC  
134 N. LaSalle St., Suite 1800

RE: Country of origin of an Automobile Windshield Washer Pump; Section 301 trade remedy; 9903.88.01, HTSUS

Dear Mr. Keating:

This is in response to your request, dated April 4, 2019, filed on behalf of your client the importer, regarding the country of origin of an automobile windshield washer pump. In your letter, you request a binding ruling on the applicability of Section 301 trade remedies to proposed transactions involving a windshield washer pump.

FACTS:

The subject merchandise is a centrifugal pump assembly, part number 1999-1WP0055EN. The pump assembly is designed for use in automotive windshield washer systems. The pump's function is to deliver washing fluid to the windshield sprayer. The pump consists of the pump housing, a seal, a terminal connector housing, an impeller and an electric motor. The electric motor is manufactured in China and then shipped to Mexico to be assembled together with the remaining parts, all of which are manufactured in Mexico. The cost of the motor constitutes approximately half of the total value of the finished merchandise, while the remaining parts constitute the other half of the total value.

The assembly process takes place at a factory in Mexico. Using a pneumatic press, workers press fit the Chinese origin electric motor into the terminal connector housing. Workers prep the rubber seal with a lubricating oil and install it onto the motor by aligning the central hole of the seal over the motor shaft. Workers apply oil to the seal a second time. Next, workers press the impeller from Mexico onto the motor shaft to make a close coupled connection. Workers place the pump housing into a fixture with the motor/connector housing and press fit these components together. The

complete pump is then performance and leakage tested. The pump is then cleaned, labeled and visually inspected.

ISSUE:

What is the country of origin of the finished pump assembly for the purposes of applying Section 301 trade remedies?

LAW AND ANALYSIS:

There is no dispute that the instant pump assembly is classified under subheading 8413.70.20 of the Harmonized Tariff Schedule of the United States (“HTSUS”), which provides for “Pumps for liquids, whether or not fitted with a measuring device....: Other centrifugal pumps: Other: Other.” The United States Trade Representative (“USTR”) has determined that an additional *ad valorem* duty of 25% will be imposed on certain Chinese imports pursuant to its authority under Section 301(b) of the Trade Act of 1974 (“Section 301 measures”). The Section 301 measures apply to products of China enumerated in Section XXII, Chapter 99, Subchapter III, U.S. Note 20(b), HTSUS. Among the subheadings listed in U.S. Note 20(b) of Subchapter III, Chapter 99, HTSUS, is 8413.70.20, HTSUS.

In accordance with 19 C.F.R. § 102.0, the 102 marking rules are applicable for the limited purposes of: “country of origin marking; determining the rate of duty and staging category applicable to originating textile and apparel products as set out in Section 2 (Tariff Elimination) of Annex 300-B (Textile and Apparel Goods); and determining the rate of duty and staging category applicable to an originating good as set out in Annex 302.2 (Tariff Elimination)”. Therefore, when determining the country of origin for purposes of applying current trade remedies under Section 301<sup>1</sup>, the substantial transformation analysis is applicable. See Headquarters Ruling Letter (“HQ”) 563205, dated June 28, 2006. See also HQ H301619, dated November 6, 2018.

The question presented is whether the electric motor is substantially transformed when it is combined with the other parts to form a finished pump assembly in Mexico. In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade (“CIT”) interpreted the meaning of “substantial transformation.” *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the “name, character and use” test utilized in determining whether a substantial transformation has occurred and noted, citing *Uniroyal, Inc. v.*

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<sup>1</sup> See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (Jun. 20, 2018).

*United States*, 3 C.I.T. at 226, 542 F. Supp. at 1031, *aff'd*, 702 F.2d 1022 (Fed. Cir. 1983), that when "the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change." *Energizer* at 1318. In addition, the court noted that "when the end-use was pre-determined at the time of importation, courts have generally not found a change in use." *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993).

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found "[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly." Also, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer's imported components did not undergo a change in name, character, or use as a result of the post-importation assembly of the components into a finished Generation II flashlight. The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights.

In the instant case, the electric motor from China is shipped to Mexico for assembly with the impeller, the seal, and the plastic housing to form the finished pump assembly. The assembly is rather simple – it involves press fitting the parts into each other. Moreover, the electric motor is the most expensive and substantive part of the finished pump assembly. We find that it imparts the "very essence" of the pump assembly, as it turns the impeller and moves the fluid through the pump. See *Uniroyal, Inc. v. United States*, 3 CIT 220, 225, 542 F. Supp. 1026, 1030 (1982) (*Uniroyal*) (holding that imported shoe uppers added to an outer sole in the United States were the "very essence of the finished shoe" and thus were not substantially transformed into a product of the United States). For these reasons, we do not find that the electric motor is substantially transformed when it is assembled into the finished pump assembly in Mexico.

As the assembly of the Chinese motor into a pump assembly in Mexico does not result in a substantial transformation of the Chinese motor, the pump assembly remains a product of China. Products of China classified under subheading 8413.70.20, HTSUS, unless specifically excluded, are subject to the additional 25 percent *ad valorem* rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8413.70.20, HTSUS, listed above.

#### HOLDING:

The country of origin of the pump assembly for the purposes of the application of subheading 9903.88.01, HTSUS, is China. As the merchandise will be a product of China, Section 301 measures will apply.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch

HQ H303866

February 13, 2020

CLA-2 OT:RR:CTF:VS H303866 EGJ

CATEGORY: Origin

Thomas M. Keating  
Rock Trade Law LLC  
134 N. LaSalle St., Suite 1800  
Chicago, IL 60602

RE: Country of origin of an Automobile Windshield Washer Pump; Section 301 trade remedy; 9903.88.01, HTSUS

Dear Mr. Keating:

This is in response to your request, dated November 7, 2018, filed on behalf of your client the importer, regarding the country of origin of an automobile windshield washer pump. In your letter, you request a binding ruling on the applicability of Section 301 trade remedies to proposed transactions involving the windshield washer pump.

FACTS:

The subject merchandise is a centrifugal pump assembly, part number 1999-1WP0055EP. It is designed for use in automotive windshield washer systems. The finished pump is processed and assembled in Mexico. Approximately half of the pump's components are of Mexican origin, approximately one third are of Chinese origin, and the remaining components are from other countries including Japan and the United States. In Mexico, the pump assembly components are press fitted to the motor subassembly to form the finished pump. The production process for each of the relevant assemblies and subassemblies is set forth below.

*The Motor Housing (Stator) Production*

To begin production of the motor housing, workers feed steel strip from Japan into a high speed press. Then, a progressive die blanks, pierces, and deep draws the steel into the final circular shape of the motor housing. Next, workers use a pneumatic press to insert a bushing from China into the motor housing. Then, unmagnetized

ferrite bars and a spring from China are placed into the housing. A pneumatic press fits the bars to a controlled height and physically deforms the spring against notches in the housing, which then locks the ferrite bars into the housing. Workers then clean the motor housing using suction. Finally, workers place the motor housing subassembly into a machine which produces a magnetic field around the subassembly and magnetizes the ferrite bars. Now the ferrite bars are permanent magnets, which make the motor housing functional.

#### *The Armature (Rotor) Production*

To begin, workers feed steel strip from Japan into a high speed press. Then a progressive die blanks and pierces the steel to create a lamination for the rotor's core. Next, workers insert a steel shaft from China into a machine which deforms the shaft's surface to a set pitch. This prepares the shaft to receive a commutator and prevents slippage.

Next, workers place lamination sheets into an automated stacking machine to a set height. A pneumatic press fits the steel shaft through the center of the lamination stack. The steel shaft is pneumatically press fitted through the center of the stack. This subassembly is electrostatically charged and then sprayed with an epoxy powder. After, a machine will heat the subassembly until the epoxy cures on the subassembly, forming permanent electrical insulation around the stack.

Then, a dispensing machine doses the shaft with an epoxy glue. The commutator from China is pneumatically pressed onto the shaft and is secured into position by the epoxy glue. The subassembly is heated again to cure the epoxy glue. Next, workers place the subassembly into a winding machine where insulated copper winding wire from Mexico is spun around the lamination stack into a specific pattern. Then, the wire is hooked to the commutator. Workers then place the subassembly into an electric spot welding machine to permanently fuse the wire to the commutator.

After the wire is fused, workers test the rotor subassembly for electrical resistance. Then, a copper spacer ring is pneumatically press fit onto the rotor shaft at a set height. Workers then place the rotor subassembly into a balancing machine, where a milling cutter removes material from the lamination stack to adjust for balance. Then, workers place the rotor subassembly into a machine which turns and machines the surface of the commutator to improve concentricity, roundness, and surface finish.

After, the rotor subassembly goes through a cleaning and visual inspection. Then, a plastic slinger and washer from China are pneumatically press fitted onto the shaft above the commutator. The slinger prevents oil from the housing bushing from contacting the commutator. Afterwards, the rotor subassembly undergoes a final electrical test.

#### *Motor End Cap Production*

To begin production, workers load thermoplastic resin from the United States into a 50 ton injection molding machine. The machine forms the resin into the plastic cap. Next, a bushing and a metal retainer ring are press fitted into the plastic cap. The retainer ring is deformed in the process and locks the bushing into place.

Separately, a carbon brush from China is pneumatically press fitted through an opening in a leaf spring from China. The press fit deforms the leaf spring and locks the brush into place. The metal subassembly is placed into a machine together with a metal terminal from China. The machine subjects the components to a high force and deforms the dimples on the terminal, which rivets the terminal to the leaf spring. This metal subassembly is then pneumatically press fit into the plastic end cap.

Next, a varistor is fitted into the end cap. The varistor is tin soldered to the terminal assemblies inside of the end cap. Finally, workers vacuum clean the end cap to remove all particulate matter. Then, they perform a final visual inspection.

### *Motor Assembly*

The three aforementioned motor subassemblies are combined together to form the motor assembly. First, workers place the rotor subassembly and the end cap into a fixture where the shaft is aligned and inserted into the end cap. Next, workers place the motor housing into the machine, which crimps the housing to the end cap to form the motor assembly. The motor assembly undergoes several tests such as load testing, a visual inspection, and a final operational test.

### *Pump Production*

To form the finished pump, the motor assembly is combined together with pump components. To make the components, workers load thermoplastic resin from China into a 50 ton injection molding machine. The machine forms the resin into a plastic pump housing. A connector is formed by having two brass terminals from China being molded over with plastics using the injection molding machine. Next, the injection molding machine forms an impeller using plastic resin from Japan.

Using a pneumatic press, workers press fit the motor into the pump connector. A rubber seal from China is installed onto the motor by aligning the central hold of the seal over the motor shaft. The impeller is pressed onto the motor shaft to form a close coupled connection. Workers place the pump housing into a fixture with the motor and press fit them together. Then, workers test the complete pump for performance and leakage. They clean, label, and visually inspect the pump.

ISSUE:

What is the country of origin of the finished pump for the purposes of applying Section 301 trade remedies?

LAW AND ANALYSIS:

There is no dispute that the instant pump assembly is classified under subheading 8413.70.20 of the Harmonized Tariff Schedule of the United States ("HTSUS"), which provides for "Pumps for liquids, whether or not fitted with a measuring device...: Other centrifugal pumps: Other: Other." The United States Trade Representative ("USTR") has determined that an additional *ad valorem* duty of 25% will be imposed on certain Chinese imports pursuant to its authority under Section 301(b) of the Trade Act of 1974 ("Section 301 measures"). The Section 301 measures apply to products of China enumerated in Section XXII, Chapter 99, Subchapter III, U.S. Note 20(b), HTSUS. Among the subheadings listed in U.S. Note 20(b) of Subchapter III, Chapter 99, HTSUS, is 8413.70.20, HTSUS.

When determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character or use, different from that possessed by the article prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). In order to determine whether a substantial transformation has occurred, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. CBP has stated that a new and different article of commerce is an article that has undergone a change in commercial designation or identity, fundamental character, or commercial use. A determinative issue is the extent of the operations performed and whether the materials lose their identity and become an integral part of the new article. This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993).

The question presented is whether the discrete parts from different countries are substantially transformed when they are assembled into a finished windshield washer pump in Mexico. In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 573 F. Supp. 1149 (Ct. Int'l Trade 1983), *aff'd*, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. Factors which may be relevant in this evaluation may include the nature of the operation (including the number of components assembled), the number of different operations involved, and whether a significant period of time, skill, detail, and quality control are necessary for the assembly operation. See C.S.D. 80-111, C.S.D. 85-25, C.S.D. 89-110, C.S.D. 89-118, C.S.D. 90-51, and C.S.D. 90-97. If the manufacturing or combining process is a minor one which leaves the identity of the

article intact, a substantial transformation has not occurred. *Uniroyal, Inc. v. United States*, 3 CIT 220, 542 F. Supp. 1026 (1982), aff'd 702 F. 2d 1022 (Fed. Cir. 1983).

In HQ H282391, dated March 16, 2017, CBP determined that the country of origin of a gear motor was the United States because the assembly process in the United States amounted to a substantial transformation. The gear motor was comprised of two subassemblies, a gear box and a motor. The assembly of the gear motor consisted of assembling together 131 unique parts, and at least a total of 200 parts. These parts were imported from various origins and were used to first assemble the gear box and motor subassemblies, and then to assemble the complete gear motor through a complex operation with specialized skill and expertise. CBP noted that the complex operations involved at least 27 steps and took approximately two hours. CBP also considered the worker experience and training, stating that the workers were hired with previous experience and underwent additional training in order to reach proficiency in the assembly process. CBP thereby concluded that the foreign components lost their individual identities and became an integral part of a new article, the gear motor, and possessed a new name, character and use, amounting to a substantial transformation as a result of the assembly operations.

In addition, CBP has held that whether an assembly process is sufficiently complex to rise to the level of substantial transformation is determined upon consideration of all of the operations that occur within that country, including any subassembly processes that take place in that country. For example, in HQ H303529, dated June 6, 2019, the subject merchandise was an incomplete postage meter, which functioned as a specialized printer in a mail handling system. While one of the major subassemblies was made in Malaysia, the remaining subassemblies were made in China, and the final assembly process of connecting the subassemblies also occurred in China. CBP found that the assembly process that occurred in China was sufficiently extensive and complex as to substantially transform the components into a product of China. In doing so, CBP noted that the question of the complexity of the assembly process which occurred in China was not limited to an examination of the assembly of the various subassemblies to one another, but included an examination of all the assembly processes involved in China in the production of the incomplete postage meter. See *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308, 1318 (2016) ("case law...indicates that a determination of substantial transformation must be based on a totality of factors") (citing *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 312 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993) and *Ran-Paige Co., Inc. v. United States*, 35 Fed. Cl. 117, 121 (1996)).

In the instant case, approximately half of the discrete parts from other countries are shipped to Mexico to be combined with components from Mexico into subassemblies. These subassemblies and the plastic pump components are then combined to form the finished centrifugal windshield washer pump. The assembly is complex and involves soldering, fusing, machining, plastic injection molding, and crimping. Therefore, we find that the discrete parts are substantially transformed when they are combined to form a finished centrifugal pump in Mexico.

As the assembly of the parts from different countries into a centrifugal windshield washer pump results in a substantial transformation, the pump is a product of Mexico. Therefore, Section 301 measures will not apply.

HOLDING:

The country of origin of the three models of centrifugal pump assemblies for the purposes of the application of subheading 9903.88.01, HTSUS, is Mexico. As the merchandise will be a product of Mexico, Section 301 measures will not apply.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch

**HQ H304105**  
**June 25, 2019**

**MAR-2 OT:RR:CTF:VS H304105 RSD**

**CATEGORY:** Origin

Mr. William Methenitis  
Ernst & Young, LLP  
2323 Victory Avenue  
Suite 2000  
Dallas, Texas 75219

RE: Country of origin of imported watches; Section 301 Trade Remedies

Dear Mr. Methenitis:

This is in response to your request, dated June 5, 2019, on behalf of Seiko Watch of America, LLC (Seiko) regarding the country of origin of complete wrist watches classified in headings 9101 or 9102, of the Harmonized Tariff Schedule of the United States (HTSUS). In your letter, you indicate that you are not seeking a ruling concerning the appropriate country of origin marking for purposes of complying with either 19 U.S.C. 1304 or the Special Marking Requirements specified in Additional U.S. Note 4 to Chapter 91 of the HTSUS. Rather, this request is being sought in order to declare the appropriate country of origin of the imported merchandise on Block 10 of the Customs and Border Protection (CBP) entry summary, and on each of the constructively separated components for Block 27. In addition, you have indicated that you are also interested in a getting a determination regarding whether the proposed Section 301 duties for Chinese origin merchandise would apply to the imported watches.

**FACTS:**

Seiko is a wholly owned U.S. subsidiary of Grand Seiko Corporation of America which is, in turn, a wholly owned subsidiary of Seiko Watch Corporation, headquartered in Tokyo, Japan. Seiko distributes watches and related products in the United States. There are four scenarios for which you are requesting a country of origin determination.

In the first scenario, the watch movement and battery of the watch are produced in Japan. The watch case and the watch band are produced in China, and the assembly of these components to make the watch occurs in Japan.

In the second scenario, the watch movement and battery of the watch are produced in Japan. The watch case and the watch band are produced in China, and the assembly of these components to produce the watch occurs in China.

In the third scenario, the watch movement and battery are produced in Japan. The watch case and band are produced in China, and the watch assembly occurs in Thailand.

In the fourth scenario, the watch movement is mechanical, and the watch has no battery. The watch movement is produced in Malaysia, while the case and the band are produced in China; the watch assembly occurs in China.

## **ISSUE:**

What is the country of origin for the watches made with components from Japan, China, and Malaysia for purposes of application of the Section 301 measures in the four scenarios described above?

## **LAW AND ANALYSIS:**

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (June 20, 2018). Later, the USTR imposed additional tariffs on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), U.S. Note 20(f) and U.S. Note 20(g), HTSUS.<sup>1</sup> The corresponding products of China that are provided for in subheadings 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04, and are classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to Subchapter III, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

On May 17, 2019, the USTR published in the *Federal Register* a notice [Docket Number USTR–2019–0004] beginning the process of imposing additional duties of up to 25 percent on all remaining imports from China (*i.e.*, List 4). According to the notice, “[i]n light of China’s failure to meaningfully address the acts, policies, and practices that are subject to this investigation and its response to the current action being taken in this investigation, and at the direction of the President, the Trade Representative proposes to modify the action being taken in this investigation.”

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<sup>1</sup> For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974).

The modification being proposed would impose additional duties of up to 25 percent on “essentially all [Chinese-origin] products not currently covered” by one of the previous lists. This new “List 4” covers products of China which are classifiable in headings 9101 and 9102 HTSUS, such as the watches you have described. Under this proposed modification, the applicable products would be subject to the applicable duty rate plus an additional 25 percent under subheading 9903.88.03, HTSUS. Accordingly, you are requesting a country of origin determination for the watches that are produced in accordance with the four scenarios and whether they would be subject to the proposed Section 301 duties.

When determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation has occurred is whether an article emerges from a process with a new name, character, or use, different from that possessed by the articles prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993).

With respect to watches, CBP's long-standing position has been that the country of origin of a watch (excluding the strap, band or bracelet) is the country of assembly where the watch movement occurs. It has been explained that although the addition of the hands, dial, case or watchband may add definition to the timepiece, it does not substantially change the character or use of the watch movement, which is the essence of the watch. See *Headquarters Ruling Letter (HQ) 735197*, dated January 4, 1994.

The term “watch movement,” is defined in Note 3 to Chapter 91, HTSUS, as follows:

For the purposes of this chapter, the expression "watch movements" means devices regulated by a balance wheel and hairspring, quartz crystal or any other system capable of determining intervals of time, with a display or a system to which a mechanical display can be incorporated. Such watch movements shall not exceed 12 mm in thickness and 50 mm in width, length or diameter. See HQ H243796, dated December 8, 2015.

Concerning the watch bands, it also has been CBP's position that a watch strap or band must be separately marked with its country of origin when that country of origin is different from the country of origin of the watch. CBP has reasoned that the watch strap maintains its separate identity from the watch as the attachment of the watch strap to the watch does not effect a substantial transformation of the watch strap. See HQ H047115, dated June 22, 2009.

In HQ H047115, CBP examined the country of origin of watch components constructively separated on entry for the purpose of determining eligibility under the

U.S.-Israel Free Trade Agreement. CBP considered a fact pattern in which a watch movement and battery made in Japan were imported into Israel, and assembled into finished watches with a case and band that originated in Israel. CBP determined that the watch movement and battery were not substantially transformed in Israel, when assembled to make a complete watch, and therefore the country of origin of the movement and the battery remained Japan. In addition, the watch bracelet and the watch case manufactured in Israel were also not substantially transformed by the assembly process, and therefore, the country of origin of the band and the case was Israel. Consequently, CBP held since the case and the bracelet were of Israeli origin, they did qualify for duty free entry under the U.S.-Israel Free Trade Agreement, while the origin of the movement and battery were of Japanese origin and thus dutiable.

However, in HQ 560471, dated January 5, 1997, CBP determined that watch straps and bands assembled to a watch in the same country where the movement was assembled were substantially transformed and became a product where the watch movement was made.

You have described four scenarios for producing watches. In Scenario 1, the movement and the battery of the watch are produced in Japan, while the case and the band are produced in China. The assembly of the components of the watch also occurs in Japan. In accordance with CBP's long standing position, the country of origin of the watch would be Japan, the country where the movement was produced. In addition, as the assembly also occurs in Japan, the country of origin of all the components, including the watchband and the case, would also be Japan.

In Scenario 2, a Japanese origin movement and battery are imported into China for assembly with a Chinese case and Chinese band to make the watch. The country of origin of the watch will be Japan, the country where the watch movement will be made. However, in accordance with prior decisions on watches, the watchband and watch case will not be substantially transformed, and thus the country of origin of these watch components would remain China.

In Scenario 3, the movement and the watch battery are produced in Japan. To make the watch, the Japanese watch movement is assembled with a Chinese case and a Chinese band in Thailand. The country of origin of the watch will be Japan, where the movement is made. However, the Chinese bands and cases are assembled with a movement in a country other than the country where the movement is made, Thailand. Therefore, the watch bands and watch case will not be substantially transformed and their country of origin would remain China.

In Scenario 4, the movement for a mechanical watch with no battery will be produced in Malaysia, while the case and band are produced in China and the assembly of the watch occurs in China. Because the movement is made in Malaysia, the country of origin of the watch will also be Malaysia. Consistent with HQ 560471, since the insertion of the Malaysian movement into the Chinese watch case and the attachment of the Chinese band to the watch occurs in China, not in Malaysia, the

watch case and the band will not be substantially transformed. Thus, the country of origin of the watch case and band will remain China.

The HTSUS makes specific reference to the calculation of duties on watches. Statistical Note 1, Chapter 91 of the HTSUS states as follows.

The calculation of duties of various watches, clocks, watch movements and clock movements requires that these articles be constructively separated into their component parts and each component separately valued. The individual components shall be separately reported under the statistical suffixes show below. In each instance the sum of the values of the individual components shall be equal to the total value of the article. In those instances where components of an article are to be separately reported under the following reporting scheme, the entry should include all the individually named components even if not included in the shipment.

In other words, under Statistical Note 1 to Chapter 91 of the HTSUS, the value of a watch must be reported to CBP by specifying the value of four individual components. The four components are: 1) the movement; 2) the case; 3) strap, band, or bracelet; and 4) the battery. The value of the watch must equal the total value of the four individual components. Each of these components is subject to a different duty rate under the HTSUS.

Therefore, in Scenario 1, because none of the components are of Chinese origin, the proposed Section 301 duties would not apply. In Scenario 2, because the Chinese origin cases and bands are not substantially transformed, the proposed 301 duties would apply to the Chinese origin case and band. Similarly, in Scenarios 3 and 4, since the Chinese origin watch bands and watch cases are not substantially transformed in the countries where these components are assembled with the watch movements, they will remain of Chinese origin, and the proposed Section 301 duties would apply to the watch bands and watch cases in these two scenarios.

#### **HOLDING:**

The country of origin of the watches, in Scenarios 1, 2, and 3, is Japan. In scenario 4 the country of origin of the watch is Malaysia. In Scenario 1, since all of components of the watches are of Japanese origin, the Section 301 duties for Chinese origin products would not be applicable. In Scenarios 2, 3, and 4 the watch cases and watch bands are not substantially transformed, and their country of origin is China. As these items will be products of China, in calculating the duties that will be imposed on the watches, the proposed Section 301 measures would apply to these items in Scenarios 2, 3, and 4.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch

**HQ H304105**  
**June 25, 2019**

**MAR-2 OT:RR:CTF:VS H304105 RSD**

**CATEGORY:** Origin

Mr. William Methenitis  
Ernst & Young, LLP  
2323 Victory Avenue  
Suite 2000  
Dallas, Texas 75219

RE: Country of origin of imported watches; Section 301 Trade Remedies

Dear Mr. Methenitis:

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**FACTS:**

Seiko is a wholly owned U.S. subsidiary of Grand Seiko Corporation of America which is, in turn, a wholly owned subsidiary of Seiko Watch Corporation, headquartered in Tokyo, Japan. Seiko distributes watches and related products in the United States. There are four scenarios for which you are requesting a country of origin determination.

In the first scenario, the watch movement and battery of the watch are produced in Japan. The watch case and the watch band are produced in China, and the assembly of these components to make the watch occurs in Japan.

In the second scenario, the watch movement and battery of the watch are produced in Japan. The watch case and the watch band are produced in China, and the assembly of these components to produce the watch occurs in China.

In the third scenario, the watch movement and battery are produced in Japan. The watch case and band are produced in China, and the watch assembly occurs in Thailand.

In the fourth scenario, the watch movement is mechanical, and the watch has no battery. The watch movement is produced in Malaysia, while the case and the band are produced in China; the watch assembly occurs in China.

## **ISSUE:**

What is the country of origin for the watches made with components from Japan, China, and Malaysia for purposes of application of the Section 301 measures in the four scenarios described above?

## **LAW AND ANALYSIS:**

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (June 20, 2018). Later, the USTR imposed additional tariffs on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), U.S. Note 20(f) and U.S. Note 20(g), HTSUS.<sup>1</sup> The corresponding products of China that are provided for in subheadings 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04, and are classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to Subchapter III, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

On May 17, 2019, the USTR published in the *Federal Register* a notice [Docket Number USTR–2019–0004] beginning the process of imposing additional duties of up to 25 percent on all remaining imports from China (*i.e.*, List 4). According to the notice, “[i]n light of China’s failure to meaningfully address the acts, policies, and practices that are subject to this investigation and its response to the current action being taken in this investigation, and at the direction of the President, the Trade Representative proposes to modify the action being taken in this investigation.”

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<sup>1</sup> For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974).

The modification being proposed would impose additional duties of up to 25 percent on “essentially all [Chinese-origin] products not currently covered” by one of the previous lists. This new “List 4” covers products of China which are classifiable in headings 9101 and 9102 HTSUS, such as the watches you have described. Under this proposed modification, the applicable products would be subject to the applicable duty rate plus an additional 25 percent under subheading 9903.88.03, HTSUS. Accordingly, you are requesting a country of origin determination for the watches that are produced in accordance with the four scenarios and whether they would be subject to the proposed Section 301 duties.

When determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation has occurred is whether an article emerges from a process with a new name, character, or use, different from that possessed by the articles prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993).

With respect to watches, CBP's long-standing position has been that the country of origin of a watch (excluding the strap, band or bracelet) is the country of assembly where the watch movement occurs. It has been explained that although the addition of the hands, dial, case or watchband may add definition to the timepiece, it does not substantially change the character or use of the watch movement, which is the essence of the watch. See *Headquarters Ruling Letter (HQ) 735197*, dated January 4, 1994.

The term “watch movement,” is defined in Note 3 to Chapter 91, HTSUS, as follows:

For the purposes of this chapter, the expression "watch movements" means devices regulated by a balance wheel and hairspring, quartz crystal or any other system capable of determining intervals of time, with a display or a system to which a mechanical display can be incorporated. Such watch movements shall not exceed 12 mm in thickness and 50 mm in width, length or diameter. See HQ H243796, dated December 8, 2015.

Concerning the watch bands, it also has been CBP's position that a watch strap or band must be separately marked with its country of origin when that country of origin is different from the country of origin of the watch. CBP has reasoned that the watch strap maintains its separate identity from the watch as the attachment of the watch strap to the watch does not effect a substantial transformation of the watch strap. See HQ H047115, dated June 22, 2009.

In HQ H047115, CBP examined the country of origin of watch components constructively separated on entry for the purpose of determining eligibility under the

U.S.-Israel Free Trade Agreement. CBP considered a fact pattern in which a watch movement and battery made in Japan were imported into Israel, and assembled into finished watches with a case and band that originated in Israel. CBP determined that the watch movement and battery were not substantially transformed in Israel, when assembled to make a complete watch, and therefore the country of origin of the movement and the battery remained Japan. In addition, the watch bracelet and the watch case manufactured in Israel were also not substantially transformed by the assembly process, and therefore, the country of origin of the band and the case was Israel. Consequently, CBP held since the case and the bracelet were of Israeli origin, they did qualify for duty free entry under the U.S.-Israel Free Trade Agreement, while the origin of the movement and battery were of Japanese origin and thus dutiable.

However, in HQ 560471, dated January 5, 1997, CBP determined that watch straps and bands assembled to a watch in the same country where the movement was assembled were substantially transformed and became a product where the watch movement was made.

You have described four scenarios for producing watches. In Scenario 1, the movement and the battery of the watch are produced in Japan, while the case and the band are produced in China. The assembly of the components of the watch also occurs in Japan. In accordance with CBP's long standing position, the country of origin of the watch would be Japan, the country where the movement was produced. In addition, as the assembly also occurs in Japan, the country of origin of all the components, including the watchband and the case, would also be Japan.

In Scenario 2, a Japanese origin movement and battery are imported into China for assembly with a Chinese case and Chinese band to make the watch. The country of origin of the watch will be Japan, the country where the watch movement will be made. However, in accordance with prior decisions on watches, the watchband and watch case will not be substantially transformed, and thus the country of origin of these watch components would remain China.

In Scenario 3, the movement and the watch battery are produced in Japan. To make the watch, the Japanese watch movement is assembled with a Chinese case and a Chinese band in Thailand. The country of origin of the watch will be Japan, where the movement is made. However, the Chinese bands and cases are assembled with a movement in a country other than the country where the movement is made, Thailand. Therefore, the watch bands and watch case will not be substantially transformed and their country of origin would remain China.

In Scenario 4, the movement for a mechanical watch with no battery will be produced in Malaysia, while the case and band are produced in China and the assembly of the watch occurs in China. Because the movement is made in Malaysia, the country of origin of the watch will also be Malaysia. Consistent with HQ 560471, since the insertion of the Malaysian movement into the Chinese watch case and the attachment of the Chinese band to the watch occurs in China, not in Malaysia, the

watch case and the band will not be substantially transformed. Thus, the country of origin of the watch case and band will remain China.

The HTSUS makes specific reference to the calculation of duties on watches. Statistical Note 1, Chapter 91 of the HTSUS states as follows.

The calculation of duties of various watches, clocks, watch movements and clock movements requires that these articles be constructively separated into their component parts and each component separately valued. The individual components shall be separately reported under the statistical suffixes show below. In each instance the sum of the values of the individual components shall be equal to the total value of the article. In those instances where components of an article are to be separately reported under the following reporting scheme, the entry should include all the individually named components even if not included in the shipment.

In other words, under Statistical Note 1 to Chapter 91 of the HTSUS, the value of a watch must be reported to CBP by specifying the value of four individual components. The four components are: 1) the movement; 2) the case; 3) strap, band, or bracelet; and 4) the battery. The value of the watch must equal the total value of the four individual components. Each of these components is subject to a different duty rate under the HTSUS.

Therefore, in Scenario 1, because none of the components are of Chinese origin, the proposed Section 301 duties would not apply. In Scenario 2, because the Chinese origin cases and bands are not substantially transformed, the proposed 301 duties would apply to the Chinese origin case and band. Similarly, in Scenarios 3 and 4, since the Chinese origin watch bands and watch cases are not substantially transformed in the countries where these components are assembled with the watch movements, they will remain of Chinese origin, and the proposed Section 301 duties would apply to the watch bands and watch cases in these two scenarios.

#### **HOLDING:**

The country of origin of the watches, in Scenarios 1, 2, and 3, is Japan. In scenario 4 the country of origin of the watch is Malaysia. In Scenario 1, since all of components of the watches are of Japanese origin, the Section 301 duties for Chinese origin products would not be applicable. In Scenarios 2, 3, and 4 the watch cases and watch bands are not substantially transformed, and their country of origin is China. As these items will be products of China, in calculating the duties that will be imposed on the watches, the proposed Section 301 measures would apply to these items in Scenarios 2, 3, and 4.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch

**HQ H304105**  
**June 25, 2019**

**MAR-2 OT:RR:CTF:VS H304105 RSD**

**CATEGORY:** Origin

Mr. William Methenitis  
Ernst & Young, LLP  
2323 Victory Avenue  
Suite 2000  
Dallas, Texas 75219

RE: Country of origin of imported watches; Section 301 Trade Remedies

Dear Mr. Methenitis:

This is in response to your request, dated June 5, 2019, on behalf of Seiko Watch of America, LLC (Seiko) regarding the country of origin of complete wrist watches classified in headings 9101 or 9102, of the Harmonized Tariff Schedule of the United States (HTSUS). In your letter, you indicate that you are not seeking a ruling concerning the appropriate country of origin marking for purposes of complying with either 19 U.S.C. 1304 or the Special Marking Requirements specified in Additional U.S. Note 4 to Chapter 91 of the HTSUS. Rather, this request is being sought in order to declare the appropriate country of origin of the imported merchandise on Block 10 of the Customs and Border Protection (CBP) entry summary, and on each of the constructively separated components for Block 27. In addition, you have indicated that you are also interested in a getting a determination regarding whether the proposed Section 301 duties for Chinese origin merchandise would apply to the imported watches.

**FACTS:**

Seiko is a wholly owned U.S. subsidiary of Grand Seiko Corporation of America which is, in turn, a wholly owned subsidiary of Seiko Watch Corporation, headquartered in Tokyo, Japan. Seiko distributes watches and related products in the United States. There are four scenarios for which you are requesting a country of origin determination.

In the first scenario, the watch movement and battery of the watch are produced in Japan. The watch case and the watch band are produced in China, and the assembly of these components to make the watch occurs in Japan.

In the second scenario, the watch movement and battery of the watch are produced in Japan. The watch case and the watch band are produced in China, and the assembly of these components to produce the watch occurs in China.

In the third scenario, the watch movement and battery are produced in Japan. The watch case and band are produced in China, and the watch assembly occurs in Thailand.

In the fourth scenario, the watch movement is mechanical, and the watch has no battery. The watch movement is produced in Malaysia, while the case and the band are produced in China; the watch assembly occurs in China.

## **ISSUE:**

What is the country of origin for the watches made with components from Japan, China, and Malaysia for purposes of application of the Section 301 measures in the four scenarios described above?

## **LAW AND ANALYSIS:**

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. See Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 28710 (June 20, 2018). Later, the USTR imposed additional tariffs on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), U.S. Note 20(f) and U.S. Note 20(g), HTSUS.<sup>1</sup> The corresponding products of China that are provided for in subheadings 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04, and are classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to Subchapter III, shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

On May 17, 2019, the USTR published in the *Federal Register* a notice [Docket Number USTR-2019-0004] beginning the process of imposing additional duties of up to 25 percent on all remaining imports from China (*i.e.*, List 4). According to the notice, “[i]n light of China’s failure to meaningfully address the acts, policies, and practices that are subject to this investigation and its response to the current action being taken in this investigation, and at the direction of the President, the Trade Representative proposes to modify the action being taken in this investigation.”

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<sup>1</sup> For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974).

The modification being proposed would impose additional duties of up to 25 percent on “essentially all [Chinese-origin] products not currently covered” by one of the previous lists. This new “List 4” covers products of China which are classifiable in headings 9101 and 9102 HTSUS, such as the watches you have described. Under this proposed modification, the applicable products would be subject to the applicable duty rate plus an additional 25 percent under subheading 9903.88.03, HTSUS. Accordingly, you are requesting a country of origin determination for the watches that are produced in accordance with the four scenarios and whether they would be subject to the proposed Section 301 duties.

When determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation has occurred is whether an article emerges from a process with a new name, character, or use, different from that possessed by the articles prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993).

With respect to watches, CBP's long-standing position has been that the country of origin of a watch (excluding the strap, band or bracelet) is the country of assembly where the watch movement occurs. It has been explained that although the addition of the hands, dial, case or watchband may add definition to the timepiece, it does not substantially change the character or use of the watch movement, which is the essence of the watch. See *Headquarters Ruling Letter (HQ) 735197*, dated January 4, 1994.

The term “watch movement,” is defined in Note 3 to Chapter 91, HTSUS, as follows:

For the purposes of this chapter, the expression "watch movements" means devices regulated by a balance wheel and hairspring, quartz crystal or any other system capable of determining intervals of time, with a display or a system to which a mechanical display can be incorporated. Such watch movements shall not exceed 12 mm in thickness and 50 mm in width, length or diameter. See HQ H243796, dated December 8, 2015.

Concerning the watch bands, it also has been CBP's position that a watch strap or band must be separately marked with its country of origin when that country of origin is different from the country of origin of the watch. CBP has reasoned that the watch strap maintains its separate identity from the watch as the attachment of the watch strap to the watch does not effect a substantial transformation of the watch strap. See HQ H047115, dated June 22, 2009.

In HQ H047115, CBP examined the country of origin of watch components constructively separated on entry for the purpose of determining eligibility under the

U.S.-Israel Free Trade Agreement. CBP considered a fact pattern in which a watch movement and battery made in Japan were imported into Israel, and assembled into finished watches with a case and band that originated in Israel. CBP determined that the watch movement and battery were not substantially transformed in Israel, when assembled to make a complete watch, and therefore the country of origin of the movement and the battery remained Japan. In addition, the watch bracelet and the watch case manufactured in Israel were also not substantially transformed by the assembly process, and therefore, the country of origin of the band and the case was Israel. Consequently, CBP held since the case and the bracelet were of Israeli origin, they did qualify for duty free entry under the U.S.-Israel Free Trade Agreement, while the origin of the movement and battery were of Japanese origin and thus dutiable.

However, in HQ 560471, dated January 5, 1997, CBP determined that watch straps and bands assembled to a watch in the same country where the movement was assembled were substantially transformed and became a product where the watch movement was made.

You have described four scenarios for producing watches. In Scenario 1, the movement and the battery of the watch are produced in Japan, while the case and the band are produced in China. The assembly of the components of the watch also occurs in Japan. In accordance with CBP's long standing position, the country of origin of the watch would be Japan, the country where the movement was produced. In addition, as the assembly also occurs in Japan, the country of origin of all the components, including the watchband and the case, would also be Japan.

In Scenario 2, a Japanese origin movement and battery are imported into China for assembly with a Chinese case and Chinese band to make the watch. The country of origin of the watch will be Japan, the country where the watch movement will be made. However, in accordance with prior decisions on watches, the watchband and watch case will not be substantially transformed, and thus the country of origin of these watch components would remain China.

In Scenario 3, the movement and the watch battery are produced in Japan. To make the watch, the Japanese watch movement is assembled with a Chinese case and a Chinese band in Thailand. The country of origin of the watch will be Japan, where the movement is made. However, the Chinese bands and cases are assembled with a movement in a country other than the country where the movement is made, Thailand. Therefore, the watch bands and watch case will not be substantially transformed and their country of origin would remain China.

In Scenario 4, the movement for a mechanical watch with no battery will be produced in Malaysia, while the case and band are produced in China and the assembly of the watch occurs in China. Because the movement is made in Malaysia, the country of origin of the watch will also be Malaysia. Consistent with HQ 560471, since the insertion of the Malaysian movement into the Chinese watch case and the attachment of the Chinese band to the watch occurs in China, not in Malaysia, the

watch case and the band will not be substantially transformed. Thus, the country of origin of the watch case and band will remain China.

The HTSUS makes specific reference to the calculation of duties on watches. Statistical Note 1, Chapter 91 of the HTSUS states as follows.

The calculation of duties of various watches, clocks, watch movements and clock movements requires that these articles be constructively separated into their component parts and each component separately valued. The individual components shall be separately reported under the statistical suffixes show below. In each instance the sum of the values of the individual components shall be equal to the total value of the article. In those instances where components of an article are to be separately reported under the following reporting scheme, the entry should include all the individually named components even if not included in the shipment.

In other words, under Statistical Note 1 to Chapter 91 of the HTSUS, the value of a watch must be reported to CBP by specifying the value of four individual components. The four components are: 1) the movement; 2) the case; 3) strap, band, or bracelet; and 4) the battery. The value of the watch must equal the total value of the four individual components. Each of these components is subject to a different duty rate under the HTSUS.

Therefore, in Scenario 1, because none of the components are of Chinese origin, the proposed Section 301 duties would not apply. In Scenario 2, because the Chinese origin cases and bands are not substantially transformed, the proposed 301 duties would apply to the Chinese origin case and band. Similarly, in Scenarios 3 and 4, since the Chinese origin watch bands and watch cases are not substantially transformed in the countries where these components are assembled with the watch movements, they will remain of Chinese origin, and the proposed Section 301 duties would apply to the watch bands and watch cases in these two scenarios.

#### **HOLDING:**

The country of origin of the watches, in Scenarios 1, 2, and 3, is Japan. In scenario 4 the country of origin of the watch is Malaysia. In Scenario 1, since all of components of the watches are of Japanese origin, the Section 301 duties for Chinese origin products would not be applicable. In Scenarios 2, 3, and 4 the watch cases and watch bands are not substantially transformed, and their country of origin is China. As these items will be products of China, in calculating the duties that will be imposed on the watches, the proposed Section 301 measures would apply to these items in Scenarios 2, 3, and 4.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



U.S. Customs and  
Border Protection

HQ H304224

December 3, 2020

**CLA-2 OT:RR:CTF:EMAIN H304224 EKR**

**CATEGORY:** Classification

**TARIFF NO.:** 8531.80.90

Hosun Yoon  
Cheomdan Industry 3, Masanhappo-gu  
Changwon-si, Gyungsangnam-do, 631-280  
South Korea

**RE:** Tariff classification of head-up display

Dear Mr. Yoon,

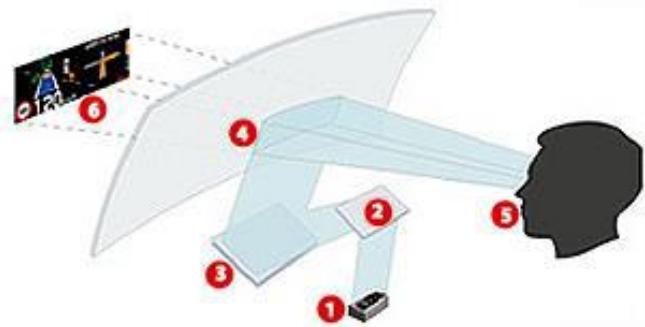
This is in response to your request on behalf of Denso Korea Corporation (“Denso”), dated May 15, 2019, pertaining to the classification of a head-up display (“HUD”) under the Harmonized Tariff Schedule of the United States (“HTSUS”). In reaching the below determination, we have considered information presented with your ruling request and supplemental information provided by email on May 28, 2020.

**FACTS:**

Denso intends to import a HUD, which will be installed in automobiles to allow the driver to view real-time information without looking away from the road. The HUD is designed to display information such as vehicle speed, safety warnings, turn-by-turn directions, and audio settings. The HUD assembly is designed to be installed in the dashboard of an automobile, behind the steering wheel, and consists of a circuit assembly, a 1.8-inch thin film transistor liquid crystal display (“TFT LCD”) screen, a flat mirror, and a concave mirror. The circuit assembly is comprised of a graphics controller integrated circuit (“IC”), and a microprocessor unit (“MPU”). The graphics controller IC and the MPU receive data from the automobile’s Controller Area Network (“CAN”) Systems and process that data into graphics displayed on the TFT LCD screen. The Chassis CAN provides data related to the vehicle’s operation, such as speed, a lane departure warning, and a low fuel warning. The MultiMedia CAN provides information related to navigation and the vehicle’s audio-visual systems, such as the radio.

The image displayed on the TFT LCD screen is reflected first on the flat mirror, and subsequently magnified and reflected onto the windshield of the vehicle by the concave mirror. The image reflected onto the windshield is designed to appear as if it were located 2.2. meters

ahead, allowing the driver to view the information without looking away from the road. The diagram below shows the arrangement of the HUD assembly, including the TFT LCD screen (1), the flat mirror (2), the concave mirror (3), the windshield of the vehicle (4) and the image as viewed by the driver (6).



#### ISSUE:

Is the HUD properly classified as an “image projector” of heading 9008, HTSUS, or as a “visual signaling apparatus” of heading 8531, HTSUS?

#### LAW AND ANALYSIS:

Classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs) and any applicable legal notes. GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

The HTSUS provisions under consideration in the instant case are as follows:

- |             |   |
|-------------|---|
| <b>8531</b> | Electric sound or visual signaling apparatus (for example, bells, sirens, indicator panels, burglar or fire alarms), other than those of heading 8512 or 8530; parts thereof; |
| <b>9008</b> | Image projectors, other than cinematographic; photographic (other than cinematographic) enlargers and reducers; parts and accessories thereof;                                |

Note 1(m) to Section XVI, HTSUS, which includes Chapter 85, provides that Section XVI does not cover articles of Chapter 90.

In addition, Additional U.S. Rule of Interpretation (AUSR) 1(a), HTSUS, provides that:

In the absence of special language or context which otherwise requires--

(a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use...

The Harmonized Commodity Description and Coding System Explanatory Notes (“ENs”) constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. *See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).* EN 90.08 describes several devices considered “projectors” of heading 9008, HTSUS, as follows:

[T]he **projection lantern (or dioscope)** ... is used to project the image of a transparent object (slide or transparency)...

The **episcope** is an image projector designed to throw on to a screen an enlarged image of a brightly illuminated opaque object...

The **epidiascope** is a projector which can be used either as a dioscope or as an episcope.

The heading includes slide projectors and other still image projectors as used in schools, lecture rooms, etc.; spectrum projectors; instruments for projecting radiographs; magnifying microfilm, microfiche or other microform readers, whether or not subsidiarily used for photocopying these documents; and the projection apparatus used in the preparation of printing plates or cylinders.

The heading also includes projectors incorporating a small screen on which an enlarged image of the slide is projected.

EN 85.31 notes that heading 8531, HTSUS, includes “indicator panels and the like,” and describes these devices as follows:

(D) **Indicator panels and the like.** These are used (e.g., in offices, hotels and factories) for calling personnel, indicating where a certain person or service is required, indicating whether a room is free or not. They include:

(1) **Room indicators.** These are large panels with numbers corresponding to a number of rooms. When a button is pressed in the room concerned the corresponding number is either lit up or exposed by the falling away of a shutter or flap.

(2) **Number indicators.** The signals appear as illuminated figures on the face of a small box; in some apparatus of this kind the calling mechanism is operated by the dial of a telephone. Also clock type indicators in which the numbers are indicated by a hand moving round a dial.

(3) **Office indicators,** for example, those used to indicate whether the occupant of a particular office is free or not. Some types are merely a simple “come in” or “engaged” sign illuminated at will by the occupant of the office.

(4) **Lift indicators.** These indicate, on an illuminated board, where the lift is and whether it is going up or down.

(5) **Engine room telegraph apparatus for ships.**

(6) **Station indicating panels** for showing the times and platforms of trains.

(7) **Indicators for race courses, football stadiums, bowling alleys, etc.**

Because Note 1(m) to Section XVI excludes articles of Chapter 90 from classification in Chapter 85, we begin our analysis by considering heading 9008, HTSUS. Denso has argued that the HUD is properly classified as a projector of 9008, HTSUS, and has cited to classification decisions from the United Kingdom, the Netherlands, and South Korea in support of this classification. We note, as an initial matter, that CBP is not bound by decisions issued by other governments. A foreign classification ruling is merely instructive of how others may classify like goods, and does not bind classification upon importation into the United States. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (Aug. 23, 1989); HQ 960428, dated December 15, 1997; and HQ W968379, dated January 25, 2007.

Each of the projectors described in the EN to heading 9008 utilizes mirrors or lenses to project and enlarge an image. We acknowledge that the flat and concave mirrors in the HUD accomplish this function, projecting and enlarging the image displayed on the TFT LCD screen onto the windshield of the car. However, the mirrors are not the only components of the HUD, and the HUD as a whole is significantly more complex than the projectors considered in the EN. Unlike the projectors described in the EN, the HUD contains a graphics controller IC, an MPU, and a TFT LCD screen. These components process data from two CAN systems to create the image that is ultimately projected and enlarged by the mirrors within the HUD. The HUD does more than merely project an image; it also creates the image to be projected. The HUD is therefore beyond the scope of heading 9008, HTSUS.

We next consider whether the HUD is classified as visual signaling apparatus of heading 8531, HTSUS. Heading 8531, HTSUS, is a “principal use provision” subject to AUSR 1(a), which requires that the tariff classification “be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong....” In *Optrex America Inc. v. United States*, the court considered the application of heading 8531, HTSUS, to simple LCDs, stating that, “[t]o be classifiable as an indicator panel incorporating a liquid crystal device under subheading

8531.20.00, HTSUS, the articles must belong to the class or kind of merchandise that is principally used to display limited information that is easily understood by the person viewing it.” 427 F. Supp. 2d 1177, 1198 (Ct. Int’l Trade 2006), aff’d 475 F.3d 1367 (Fed. Cir. 2007).

CBP has classified LCDs that are limited by design and/or principal use to “signaling” in heading 8531, HTSUS. For example, in HQ H049555 (April 13, 2009), CBP classified LCD modules intended for use in automobiles as radio/message displays in heading 8531, HTSUS. These LCD modules used segment-style characters and permanently etched icons to communicate limited information in a fashion easily understood by the driver of the automobile. The information conveyed by the LCD modules included the time, velocity in miles per hour, climate control, compass, music controls, and Bluetooth connection status. CBP determined that these modules were operationally limited to performing signaling functions akin to those performed by the products listed in the ENs to heading 8531. Similarly, in NY N306705 (October 31, 2019), CBP classified LCD indicator panels for automobiles in heading 8531, HTSUS. The panels used both segment style characters and fixed icons to indicate things like the amount of fuel remaining in the tank, driving distance, the time, audio output, external temperature and revolutions per minute (RPM). Likewise, in HQ H026661 (July 8, 2008), CBP classified an LCD display for auto/marine/industrial applications in heading 8531, HTSUS. The LCD displays could be programmed to display the information desired for the particular context in which the panel would be used by application of software. For example, the LCD displays could be programmed to display RPM, temperature, speed and fuel tank level. The LCD displays presented “limited indication information that is easily understood by the user” and CBP noted that these functions are “akin to those performed by the indicator panels enumerated in the ENs to heading 8531, HTSUS.” Therefore, the ruling placed the LCD displays in heading 8531, HTSUS. *See also* HQ H003880, dated March 27, 2007.

As in the rulings above, we have determined that the HUD is limited by design and principal use to “signaling,” and it is properly classified in heading 8531, HTSUS. The HUD is designed to provide limited, easily understood information to the driver in a location that does not require the driver to avert their eyes from the road ahead. Although the TFT LCD does not have permanently etched icons or segment-style characters, the screen utilizes similarly simplistic icons and numbers, always appearing in the same place on the screen, to convey information to the driver. For example, turn-by-turn directions are displayed using directional arrows to indicate the next turn, and numbers to indicate the distance to that turn. Similarly, safety warnings such as the lane departure warning and the blind spot warning are displayed as simple icons. The digital speedometer gives the speed of travel in the center of the image. The limited information provided by the HUD meets the standard set by the court in *Optrex*, and is analogous to the information provided by the LCDs considered in previous rulings.

However, the HUD does differ from the LCDs considered by the court in *Optrex* and in prior CBP rulings, in that the driver views a projection of the TFT LCD, as reflected by the mirrors in the HUD assembly, rather than the LCD itself. As a result, though the HUD performs a function analogous to the “indicator panels” considered in the *Optrex* decision, and prior CBP rulings, the HUD is not an “indicator panel.” Rather, the HUD is a signaling device that performs a function similar to that of an indicator panel, and is properly classified in subheading 8531.80.90, which provides for “[e]lectric sound or visual signaling apparatus (for example, bells,

sirens, indicator panels, burglar or fire alarms), other than those of heading 8512 or 8530; parts thereof: Other apparatus: Other.”

**HOLDING:**

By application of GRI 1, AUSR 1(a), and GRI 6, the HUD is classified in heading 8531, HTSUS, specifically in subheading 8531.80.90, which provides for “Electric sound or visual signaling apparatus (for example, bells, sirens, indicator panels, burglar or fire alarms), other than those of heading 8512 or 8530; parts thereof: Other apparatus: Other.” The 2020 column one, general rate of duty for merchandise of subheading 8531.80.90, HTSUS, is free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/). A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Gregory Connor, Chief  
Electronics, Manufacturing, Automotive,  
and International Nomenclature Branch



**U.S. Department of Homeland Security**  
Washington, DC 20229

U.S. Customs and Border Protection

**HQ H304910**

**April 21, 2020**

**OT:RR:CTF:VS H304910 JMV**

**CATEGORY:** Origin

Heather Jacobson, Esq.  
999 Third Ave.  
Suite 2525  
Seattle, WA 98104

**RE:** Country of Origin of Vehicle Lamps; Section 301 Trade Remedy; 9903.88.03, HTSUS

Dear Ms. Jacobson:

This is in response to your letter dated December 21, 2018, on behalf of Grakon LLC (“Grakon”). In your letter, you request a ruling pursuant to 19 C.F.R. Part 177 regarding the country of origin of Vehicle Lamps.

**FACTS:**

Grakon is a U.S. corporation with its principal place of business located in Seattle, WA. Grakon is a U.S. importer of the merchandise that is the subject of this request, and as such is authorized to file the instant request under the provisions of 19 C.F.R. § 177.24.

The products at issue are three similar Light Emitting Diode (“LED”) lamps, identified as Parts 2082-003, 4289-001, and 2000-007, designed for incorporation into motor vehicles. Grakon submits that the manufacturing scenarios reviewed herein result in a substantial transformation of the articles in Mexico, and that the resulting finished lamps would therefore originate in Mexico for purposes of Section 301 tariffs. Alternatively, Grakon submits that the country of origin of the finished lamps for purposes of application of Section 301 tariffs is the country in which the LEDs are manufactured.

Grakon states that each lamp model is designed for incorporation into a passenger vehicle of heading 8703, Harmonized Tariff Schedule of the United States (“HTSUS”) and that all three parts are classifiable under 8512.20.20, HTSUS, which provides for electrical lighting equipment for vehicles of subheading 8701.20 or heading 8702, 8703, 8704, 8705 or 8711.

*Part 2082-003: Door Dome Lamp*

Part 2082-003 is a dome lamp designed to be installed on the inside door of the vehicle. It consists of the following components:

1. Injection molded plastic back cover;
2. Injection molded plastic terminal support piece, to hold the Printed Circuit Board Assembly (“PCBA”);
3. Injection molded, plastic transparent dome lamp lens;
4. Injection molded plastic dome lamp reflector;
5. Brass dome lamp terminal; and
6. PCBA, including LED lights.

You state that the PCBA constitutes 72.38% of the value of the component materials, including packaging. When Chinese overhead and assembly labor costs are included, the PCBA makes up 57.52% of the value of the fully assembled lamp.

The PCBA will be manufactured in Mexico using LEDs manufactured in Japan and other components sourced in Mexico or elsewhere. The transparent plastic dome lamp lens will be manufactured in Mexico or in China. All other components will be purchased from manufacturers in China, where the lamp will be assembled. In China, the brass lamp terminal will be soldered to the PCBA. The remaining components will then be assembled together by hand through use of connectors on the components; no screws or other external fasteners will be required. Inspection and testing will be conducted, then the finished part will be packaged for shipment and sale.

*Part 4289-001: LED Dome Lamp*

Part 4289-001 is an LED Dome Lamp designed for installation in the back of a heavy-duty truck, to provide lighting in the sleeping area. Part 4289-001 is approximately 1.5 feet in length, and includes two separate lighting options: a direct LED dome light that shines concentrated light on a specific area, and two light pipes that diffuse LED light throughout the space. These two light sources may be used independently or in conjunction with one another.

The dome light consists of an LED PCBA, and each of the light pipes is also connected to its own LED PCBA, for a total of three separate LED PCBAs within the product. The components of Part 4289-001 include:

1. Injection molded, transparent plastic dome lens;
2. Injection molded, transparent plastic side lens;
3. Injection molded plastic housing;
4. Injection molded plastic light pipes;
5. Screws for assembly of light pipes to housing;
6. The dome light PCBA, attached to an injection molded plastic back cover;
7. The light pipe PCBAs, assembled within a plastic housing;

8. Speed clips, which hold the multiple wire harnesses in a secure position;
9. Pillar clips, which mount and hold the lamp assembly to the vehicle headliner; and
10. Wiring and related connectors and electronics to connect the light pipe PCBA to the dome PCBA so all three can connect to the vehicle electronics via one connector.

The three PCBA together constitute 56.5% of the total cost of materials for Part 4289-001. The three PCBA make up 42.97% of the value of the completed lamp when Chinese labor and overhead is included. The PCBA will be manufactured in Mexico using LEDs manufactured in Japan and other components sourced in Mexico or elsewhere. The transparent plastic side lens will be manufactured in Mexico or in China. The speed clips and pillar clips will be purchased from manufacturers in the United States. All other components will be purchased from manufacturers in China. Part 4289-001 will be assembled in China. The component parts will be assembled with screws or other connectors, without the need for adhesive or further processing. Inspection and testing are conducted, then the finished part is packaged for shipment and sale.

#### *Part 2000-007: Exterior Marker Lamp*

Part 2000-007 is an exterior marker lamp for a vehicle. It consists of the following components:

1. Injection molded, plastic transparent lamp lens;
2. Washers;
3. LED wire harness assembly;
4. EVA foam gasket;
5. Rubber gasket;
6. Injection molded, chromed plastic housing;
7. Screws;
8. Washers; and
9. Epoxy.

Grakon states that the LED assembly is the second highest value component, comprising 21.5% of the total materials cost. The LED assembly of Part 2000-007 represents 15.34% of the value of the final product, which includes Chinese overhead and labor. The PCBA will be manufactured in Mexico using LEDs manufactured in the United States and other components sourced in Mexico or elsewhere. Then, the PCBA with LEDs will be assembled with the wire harness in Mexico. The transparent plastic lens will be manufactured in Mexico or in China. All other components will be purchased from manufacturers in China.

Part 2000-007 will be assembled in China. First, the LED wire harness electronics are encased in epoxy potting material prior to assembly with the rest of the components. The components are then assembled together using screws or self-connecting components. Inspection and testing are conducted, then the finished part is packaged for shipment and sale.

## *PCBA Manufacturing in Mexico*

You state that in all manufacturing scenarios, the PCBA for each vehicle lamp at issue will be assembled in Mexico. PCBA production in Mexico includes assembling the LEDs into the PCBA so that, once assembled, each finished PCBA will be a complete light source with fully integrated LEDs and circuitry. The PCBA incorporated into 2082-003 and 4289-001 are manufactured using a process called Surface Mount Technology (“SMT”) while the PCBA incorporated into 2000-007 are manufactured using an older process known as Wave Soldering.

SMT is a method of manufacturing PCBAs whereby components are soldered to the surface of the PCB rather than placed into holes on the PCB. The PCBs used in this process are manufactured in “panels” of multiple PCBs connected together. Here, each panel results in 6 identical PCBAs. Plastic mechanical holders or connectors are added to the PCBA, which allow the PCBA to be connected with other interfacing components or wire harnesses in the finished product. In some cases, terminals, that provide the electrical interface to the vehicle wire harness, are hand soldered onto the PCBA at this stage of the manufacturing process. This step may also occur during the final assembly process; connection of the vehicle wire harness might also use snap-on connectors rather than soldering.

For the 2000-007 Wave Soldering is used and individual components of the PCBA are manually placed onto the PCB by humans, and each individual part has a metal lead that goes through a hole. The PCB panels are then placed panel by panel into a wave solder machine, which sends a “wave” of solder across the entire panel. As the solder flows across the panel, it flows into the holes containing the leads, which secures the components to the boards and creates the electrical connections. In this case, the PCBA consists principally of four LEDs and two resistors. Upon completion of the steps described below, each finished PCBA is a complete light source with fully integrated LEDs and circuitry.

### **ISSUE:**

What is the country of origin of the subject vehicle lamps for Section 301 purposes?

### **LAW AND ANALYSIS:**

When determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character or use, different from that possessed by the article prior to processing. *See Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. *See National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of

the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, or use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process may be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

Substantial transformation, including the “name, character and use” test, was at issue in *National Hand Tool Corp. v. United States*. Therein, the Court of International Trade determined that certain mechanics’ tools did not undergo substantial transformation in the United States, and therefore, were not exempt from the marking requirements set forth in 19 U.S.C. § 1304. The court found that there was no change in name because each article as imported had the same name in the completed tool. The court also found that there was no change in character because the articles, which were either hot-forged or cold-formed into its final shape in Taiwan, remained the same after heat treatment, electroplating, and assembly in the United States. The court further determined that the use of the imported articles was predetermined at the time of entry – noting that each component was intended to be incorporated in a particular finished mechanics’ hand tool, except for one exhibit. Lastly, the court rejected the Plaintiff’s claim that the value added in the United States was relatively significant to the operation in Taiwan so that that substantial transformation should be found, noting that such a finding could lead to inconsistent marking requirements for importers who perform exactly the same processes on imported merchandise, but sell at different prices. *Id.*

The Court of International Trade more recently interpreted the meaning of “substantial transformation” in *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016). *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight. All of the components of the flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States and assembled into the finished Generation II flashlight. The *Energizer* court reviewed the “name, character and use” test utilized in determining whether a substantial transformation had occurred and noted, citing *Uniroyal, Inc.*, 3 C.I.T. at 226, that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp.*

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found “[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly.” The court also found that the components had a predetermined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that *Energizer*’s imported components did not undergo a change in name, character, or use as a result

of the post-importation assembly of the components into a finished Generation II flashlight. Virtually all of the components of the military Generation II flashlight, including the most important component, the LED, were of Chinese origin. Thus, the court determined that China was the correct country of origin of the finished Generation II flashlights for purposes of government procurement.

The Court of International Trade has also looked at the essential character of an article to determine whether its identity has been substantially transformed through assembly or processing. For example, in *Uniroyal, Inc. v. United States*, 3 C.I.T. at 225, the court held that imported shoe uppers added to an outer sole in the United States were the “very essence of the finished shoe” and thus the character of the product remained unchanged and did not undergo substantial transformation in the United States. Similarly, in *National Juice Products Association v. United States*, 10 C.I.T. 48, 61, 628 F. Supp. 978, 991 (1986), the court held that imported orange juice concentrate “imparts the essential character” to the completed orange juice and thus was not substantially transformed into a product of the United States.

CBP has often found that the origin of a light source to be a significant factor in determining the country of origin of a product. For example, in Headquarters Ruling Letter (“HQ”) H017620, dated February 5, 2008, CBP determined that the various imported components (individual parts and subassemblies) were substantially transformed because of the operations performed in the United States to produce both the lens head subassembly and the finished flashlight. In support of this conclusion, CBP noted that the U.S. origin LED imparted the essential character to the lens head subassembly and flashlight as it generated the primary light of the flashlight. *See also* HQ H215657, dated April 29, 2013, (referring to the LED as the “most important component” of the flashlight). However, CBP has also found the manufacture of components onto a PCBA is a substantial transformation.

In C.S.D. 85-25, 19 Cust. Bull. 844 (1985), CBP held that for purposes of the Generalized System of Preferences (“GSP”), the assembly of a large number of fabricated components onto a printed circuit board in a process involving a considerable amount of time and skill resulted in a substantial transformation. In that case, in excess of 50 discrete fabricated components (such as resistors, capacitors, diodes, integrated circuits, sockets, and connectors) were assembled onto a PCB. CBP determined that the assembly of the PCBA involved a very large number of components and a significant number of different operations, required a relatively significant period of time, skill attention to detail, and quality control.

In HQ H114395, dated May 18, 2011, CBP considered the country of origin of a digital light processing projector for the purposes of U.S. government procurement to be where the PCBA main board and the light source were assembled. The projector used LEDs from Taiwan as its light source for projecting photos and videos from mobile devices onto any surface. CBP considered origin of the projector under two manufacturing scenarios. In both scenarios, parts from Japan, China, Korea, Thailand, Taiwan and the United States were assembled to create the light engine and PCBA main board. In the first scenario, the light engine and PCBA main board were assembled in China and in the second scenario, the light engine and PCBA main board were assembled in Taiwan. In both scenarios, final assembly occurred in Taiwan. CBP determined that the light engine and the PCBA main board were the essence of the projector and

their production was the last substantial transformation. Therefore, the country where the light engine module and PCBA main board module were assembled and programmed was the country of origin, meaning China in the first scenario and Thailand in the second.

In accordance with C.S.D. 85-25 and HQ H114395, for all three vehicle lamps currently under consideration, the assembly of the Japanese origin LEDs and the Mexican origin PCBAs in Mexico results in a substantial transformation. We find that the SMT and Wave Soldering processes incorporate a large number of discrete components parts onto a printed circuit board, which is a sufficiently “complex and meaningful” operation, so as to result in a substantial transformation of the parts making up the printed circuit board assembly. Here, the LEDs are one of the discrete components that are incorporated into the PCBA. Therefore, the assembly in Mexico results in a substantial transformation.

The assembly processing in China, which consists of assembling components together with screws, connectors, and soldering, is insufficient to amount to a substantial transformation of the PCBA with LED lights. While the plastic lenses and reflector contribute to the car lamps ability to diffuse the light in accordance with customer expectations, as in HQ H114395, the PCBA is already a complete light source with a fully integrated LED and circuitry. Consistent with the finding in *Energizer*, these processes are minor and do not change the shape or material composition of the component parts. The parts still retain their names once assembly is complete. For example, the lens is still the lens and the gasket is still the gasket. Therefore, we find that the country of origin of the LED vehicle lamps is Mexico, where the PCBA with LED lights is manufactured, and Section 301 measures do not apply.

## **HOLDING:**

The country of origin of the vehicle lamps, for purposes of the application of subheading 9903.88.03, HTSUS, is Mexico. As the merchandise will be a product of the Mexico, Section 301 measures do not apply.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



**U.S. Department of Homeland Security**  
Washington, DC 20229

U.S. Customs and Border Protection

**HQ H306336**

**February 11, 2020**

**OT:RR:CTF:VS H306336 JW**

**CATEGORY:** Origin

Maureen E. Thorson  
Wiley Rein LLP  
1776 K Street NW  
Washington, DC 20006

**RE:** Reconsideration of NY N306161; Country of Origin of Battery Packs; Section 301 Trade Remedy

Dear Ms. Thorson:

This is in response to your request for reconsideration of New York Ruling Letter (“NY”) N306161 issued on October 4, 2019. Your request for consideration, dated October 30, 2019, is filed on behalf of your client Inventus Power (“Inventus”). Your request includes a copy of Inventus’s original ruling request dated September 9, 2019. In addition to your written submission, U.S. Customs and Border Protection (“CBP”) personnel met with you and Inventus on December 10, 2019. During the meeting Inventus provided additional written information and you followed up with an email dated December 12, 2019.

You request the revocation of NY N306161, which found that Inventus’s medical battery packs may be marked as made in Mexico; however, the country of origin for the battery packs for Section 301 purposes was China. You argue that it should be “replaced with a determination that Inventus’s medical battery packs originate, for Section 301 purposes, in the country where final assembly operations take place, or otherwise in the country in which the PCBAs, and particularly the main board assembly, are produced through surface mounting operations.” *See* Request for Reconsideration at 3-4.

We reviewed your request for reconsideration and determined that New York Ruling Letter N306161 (“NY N306161”) is correct for the reasons set forth herein.

The items at issue are battery packs for mobile medical carts (“items at issue” or “battery packs”). Inventus’s original ruling request states that “[t]hese battery packs incorporate a main

board assembly, a communications board assembly, wiring/wiring harnesses, fasteners, plastic housing components and, depending on the configuration of the pack, 48, 56, or 64 lithium-ion cells.” Attachment A at 1. In addition it appears that there are screws and washers, a communications cable and a plastic separator.

The main board assembly is sourced from China. It is a printed circuit board assembly (“PCBA”) created by mounting individual electronic components<sup>1</sup> onto a raw printed circuit board through the use of surface mounting technology. The communications board assembly is also sourced from China. The communications board assembly consists of two data connector components and about 10 electronic components, all mounted onto a printed circuit board. The surface mounting operations for the main board assembly and communication board assembly are done in China; however Inventus notes that they anticipate re-sourcing the main board assembly and communications board assembly, inclusive of the surface mounting operations, to another country, and in all likelihood the country for sourcing the assemblies will be the same non-China country.

The lithium-ion cells, nickel contact strips and thermistors/tape are also sourced from China. The brass terminals, wiring/wiring harnesses, fasteners, insulating paper, and housing components are sourced from Mexico or the United States. The screws and washers are sourced from Mexico or the United States. The communications cable and the plastic separator are sourced from Mexico.

For ease of reference, a chart of where the components within the items at issue are sourced is provided below:

<b><u>China</u></b>	<b><u>Mexico or the United States</u></b>
main board assembly (includes surface mounting operations)	brass terminals
communications board assembly (includes surface mounting operations)	wiring/wiring harnesses
lithium-ion cells	fasteners (includes screws and washers)
nickel contact strips	insulating paper
thermistors/tape	housing components (includes a top housing and a bottom housing)
	plastic separator
	screws and washers
	communications cable

Once the main board assembly and the communications board assembly are created in China, they are sent to Mexico. In Mexico, brass terminals are mounted, with screws, washers and nuts, into the top housing of the battery pack. The communications board assembly is then screwed into the underside of the top housing. This process takes about two minutes.

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<sup>1</sup> Inventus notes that there are more than 700 individual electronic components.

The main board assembly is then installed into the top housing with screws and washers and a communications cable is attached to link the communications module on the communications board assembly with the main board assembly. This process takes about two minutes.

The lithium-ion cells are then connected to each other and the finished battery packs contain either 48, 56, or 64 cells. Washers are then attached to the lithium-ion cells and the lithium-ion cells are then connected using nickel contact strips. There is also further insulating paper separating groups of lithium-ion cells. Wiring/wiring harnesses are then attached to the full groups of lithium-ion cells and the connection points are sealed with tape. Thermistors are then installed along the wiring/wiring harnesses. This process takes about twenty minutes. It is also noted that these operations are performed by workers that have soldering experience.

The joined group of lithium-ion cells is then inserted into the bottom housing, a plastic separator is placed on top of the lithium-ion cells, and the wiring harness connected to the lithium-ion cells is fed through gaps in the plastic separator. The wiring harness is then connected with the main board assembly and the top housing, which already has the communications board assembly and main board assembly installed, is screwed to the bottom housing, which already has the lithium-ion cells and plastic separator installed. This process takes about two minutes.

Finally the battery pack is subjected to electrical testing. This process takes about three minutes.

Your request for reconsideration does not appear to dispute the finding in NY N306161 that the battery packs may be marked as made in Mexico. The dispute centers on whether China should be the country of origin for the battery packs for Section 301 purposes. Specifically, the request argues that the country of origin for the battery packs for Section 301 purposes should be in the country where (a) final assembly operations take place; or (b) the PCBAs, and particularly the main board assembly, are produced through surface mounting operations. *See* Request for Reconsideration at 3-4. There is no dispute that when determining the country of origin for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. *See e.g.*, Request for Reconsideration at 2-3; Attachment A at 1; NY N306161 at 3; and Headquarters Ruling (“HQ”) H303279 at 3.

Inventus argues that “[g]iven the complexity of the assembly processes performed in Mexico . . . the country of origin of the battery packs at issue here, under the substantial transformation test, is Mexico.” Attachment A at 10. However, we disagree that the assembly processes performed in Mexico result in a substantial transformation of these components sourced from China.

The test for determining whether a substantial transformation has occurred is whether an article emerges from a process with a new name, character or use, different from that possessed by the article prior to processing. *See Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982); *see also Belcrest Linens v. United States*, 741 F.2d 1368, 1372 (Fed. Cir. 1984). This

determination is based on the totality of the evidence. *See National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993).

First, we find that the components sourced from China do not undergo a change in name when they are assembled into a battery pack in Mexico. The name of each article, as imported, remains the same as that article in the completed battery pack. *See e.g., National Hand Tool*, 16 C.I.T. at 311. As the constitutive components imported from China do not lose their individual names as a result of the post importation assembly in Mexico, no name change has occurred.

Turning to character, we find that there is no change in character as a result of the assembly operations in Mexico. For courts to find a change in character, there often needs to be a substantial alteration in the characteristics of the articles or components. *See e.g., National Hand Tool*, 16 C.I.T. at 311. Courts have not found a change in character when the “form of the components remained the same.” *Id.* In other cases, courts have looked to the “essence” of a completed article to determine whether an imported article has undergone a change in character as a result of post importation processing. *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308, 1318 (2016) (*citing Uniden America Corp. v. United States*, 120 F. Supp. 2d 1091, 1095-1098 (2000) and *Uniroyal, Inc. v. United States*, 3 C.I.T. 220 *aff'd*, 702 F.2d 1022 (Fed. Cir. 1983)). Here, the components sourced from China (*i.e.*, either the lithium-ion cells according to NY N306161, or the main board assembly according to Inventus) impart the “essence” of the finished battery packs. The assembly operations in Mexico do not change the shape or material composition of any component sourced from China. The components sourced from China are simply held together as an aggregate product after the assembly operations in Mexico; hence we find that there is no change in character as a result of the assembly operations in Mexico.

In addition, we find that the components sourced from China do not undergo a change in use as a result of the assembly operations in Mexico. In looking at whether there is a change in use, courts have found that a change in use has occurred when the end use of the imported product was no longer interchangeable with the end use of the product after post importation processing; in contrast, when the end use was predetermined at the time of importation, courts have generally not found a change in use. *Energizer Battery*, 190 F. Supp. 3d at 1319 (*citing Ferrostaal Metals Corp. v. United States*, 664 F. Supp. 535, 540-41 (1987); *National Hand Tool*, 16 C.I.T. at 311-12; *Ran-Paige Co., Inc. v. United States*, 35 Fed. Cl. 117, 121-22 (1996); *Uniroyal*, 3 C.I.T. at 226). “When articles are imported in prefabricated form with a pre-determined use, the assembly of those articles into the final product, without more, may not rise to the level of substantial transformation.” *Id.* (*citing Uniroyal*, 3 C.I.T. at 226). All of the components sourced from China have a predetermined end use as parts and components of a battery pack at the time of importation. For example, it is undisputed that the main board assembly that is sourced from China is imported in a prefabricated form with a pre-determined end use. *See Tab A of Inventus's Meeting Materials at 2* (“a custom-designed PCBA that Inventus produces in-house”). In addition, while Inventus notes that the lithium-ion cells sourced from China may be “used to produce products as disparate as single-cell power sources for flashlights or to complex back-up power systems,” the question is not whether the imported components could be used to make other products, but rather the proper query is “whether the components have a predetermined end-use at the time of importation.” *See e.g., Energizer*

*Battery*, 190 F. Supp. 3d at 1323. Here, there does not appear to be any dispute from Inventus that at the time of importation these lithium-ion cells are intended to be incorporated into a battery pack. As Inventus's imported components have a pre-determined end-use as parts and components of a battery pack at the time of importation; we find that the components sourced from China do not undergo a change in use due to the assembly process in Mexico.

Finally, we also find that the assembly operations in Mexico are not sufficiently complex as to constitute a substantial transformation. Inventus argues that the “complex, multi-step operations in Mexico that result in the finished battery” is performed by skilled workers with soldering experience. Attachment A at 10. Hence, Inventus concludes that given the complexity of the assembly process, the country of origin of the battery packs at issue, under the substantial transformation test, is Mexico. We disagree. While Inventus asserts that the assembly operations in Mexico require skilled workers with soldering experience, Inventus fails to discuss or provide any evidence as to the level of training or experience required by the workers.

Moreover, in describing the assembly process Inventus uses the words “mounted,” “screwed,” “installed,” “attached,” “connected,” “sealed,” “inserted,” “placed,” “fed,” and “test[ed]” and notes that this assembly process in Mexico takes about 30 minutes per battery pack. *Id.* at 2-3; Request for Reconsideration at 1. These factors do not suggest an assembly process that is complex, rather the assembly process in Mexico appears to be no more than the mere assembly of the components sourced from China (each imported with a predetermined end use) with components, as noted *supra*, from Mexico or the United States. In further support, we note that the assembly process described here, while taking slightly more time<sup>2</sup>, is relatively similar to the assembly process described in *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308, 1325 (2016). *Energizer Battery* concerned the government procurement provisions of the Trade Agreements Act of 1979, but the court in looking at the concept of substantial transformation, looked to judicial interpretations of identical language in cases involving country of origin marking, duty drawback, transshipment, voluntary restraint agreements, and the generalized system of preferences. *Id.* at 1313, 1316. *Energizer Battery* found plaintiff’s post importation processing was not sufficiently complex as to constitute substantial transformation. *Id.* at 1323. In doing so, the court noted, “the nature of the assembly is broadly described as assembling, screwing, connecting and soldering approximately fifty components, many of which are simple attaching mechanisms. None of these factors suggest an assembly process that is complex.” *Id.* at 1324. Similarly here, with respect to the assembly process in Mexico, we do not find that there is anything to suggest that the assembly process is complex and find that the assembly operations in Mexico do not constitute a substantial transformation.

As discussed above, we find that the assembly processes performed in Mexico do not result in a substantial transformation of the components sourced from China. However, Inventus further argues that “to the extent that CBP deems the assembly operations performed in Mexico

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<sup>2</sup> However, *see also e.g.*, HQ H287548 at 7 (“All of these processes, including the testing of the finished printer . . . are concluded in just 40 minutes. The manufacturing processes of these subassemblies in the United States do not rise to the level of complex processes necessary for a substantial transformation to occur. In fact, the end-use of the imported and fully assembled subassemblies is already pre-determined at the time of importation.”).

insufficiently complex to substantially transform non-Mexican components, Inventus believes that the country of origin should be the country in which the main board assembly is produced.” Attachment A at 10.

In the instant case, Inventus currently sources the main board assembly from China. Inventus notes that it may source the main assembly board (and also the communications board assembly) from an alternate country (*i.e.*, a country other than China). Nonetheless, we agree with NY N306161 that “the battery cells, which store and provide power, impart the essence of the finished battery packs.” *Id.* at 3. We further find that even if the main assembly board is later sourced from a country other than China, the battery cells are not substantially transformed by the addition of this main assembly board sourced from a country other than China (or the assembly operations in Mexico as described above).

As noted above, there does not appear to be any dispute that for purposes of applying current trade remedies under Section 301, the substantial transformation analysis is applicable. *See supra*. Inventus’s arguments appear to focus on whether the main board assembly is the “essence” of the item at issue. The “essence test” has generally been used by courts to determine in some instances whether there has been a change in character. *Uniden Am. Corp.*, 120 F. Supp. 2d at 1096 (citation omitted). In applying the “essence” test to this case, the question is whether the main board assembly or whether the lithium-ion cells impart the essential character of the battery pack. *See e.g., id.* “The term ‘character’ is defined as ‘one of the essentials of structure, form, materials, or function that together make up and usually distinguish the individual.’” *Id.* (citation omitted).

Inventus asserts that the country where the main board assembly is produced should be the country of origin for Section 301 purposes because the main board assembly is integral to the functioning of the battery pack and provides five functions that are critical to the operation and overall safety of the battery packs. The five functions include: (1) safety monitoring functions, (2) charge control, (3) cell balancing, (4) fuel gauging, and (5) communication. Inventus further notes that “in the absence of the main PCBA, the battery pack would not be able to function as intended.” Request for Reconsideration at 2. To support the assertion that the main board assembly should dictate the origin of the finished good Inventus points to the following CBP decisions: NY N305104, NY N304425, NY N303008 and HQ H287548. In contrast, Inventus states that the battery packs at issue here are substantially more complex than the products considered in HQ H563045, HQ H561806, and HQ H704711 where CBP concluded that the battery cells provide the “essence” of the finished article.

We disagree with Inventus and agree with NY N306161 that the lithium-ion cells (and not the main board assembly) constitute the “essence” of the finished article, *i.e.*, the battery packs. While it may be that the main board assembly is integral to the functioning of the battery pack and absent the main board assembly, the battery pack would not function as intended, the same can be said of the lithium-ion cells (and possibly most of the other components that make up the finished article as well). In addition, even though the battery packs here may be more complex than the products considered in HQ H563045, HQ H561806, and HQ H704711, they are nonetheless advertised in Inventus’s marketing materials as a “battery” to “power[] your mobile medical cart.” *See* Attachment 1 to Attachment A. As noted in Inventus’s marketing

materials, the additional functions provided by the main board assembly are merely an “added benefit.” *Id.* The lithium-ion cells are not substantially transformed simply by putting them together in a plastic case or adding a main board assembly to provide “added benefit[s]”. The battery pack is used to power a medical cart and this power is stored and provided by the lithium-ion cells that are sourced from China. *See e.g.*, Attachment A at 7 (“the individual cells in the battery packs are used to generate energy. . . .”). Hence, we find that the lithium-ion cells constitute the “essence” of the finished article and neither the assembly operations in Mexico, nor the potential addition of a main assembly board sourced from a country other than China, results in substantial transformation.

In addition, Inventus points to NY N305104, NY N304425, NY N303008 and HQ H287548 to support its assertion that the main board assembly should dictate the country of origin of the battery pack. However, we find that all of these decisions are distinguishable from the instant case for the reasons provided below. Even though these four decisions cited by Inventus involved PCBAs, as a threshold matter, unlike the prior three decisions cited in the paragraph above, none of these decisions involved battery packs or PCBAs for battery packs.

NY N305104 involved motor controllers and found that “the Control and Power PCBAs impart the essence of the finished controller.” *Id.* at 3. The motor controllers were for use in off road vehicles and fully programmable with varying motor configurations. The functionality of the Control and Power PCBAs is not clear as it was not discussed in depth in NY N305104; hence, other than the presence of a PCBA with unknown functionality, it is not clear to us how NY N305104 supports Inventus’s assertion that the country where the main board assembly is produced should be the country of origin for Section 301 purposes.

NY N304425 involved contactless reader modules. The reader modules were described as secure payment card readers. This decision found that the main PCBA was the essential component of the finished module as it was programmed to perform the function of scanning payment cards and communicating with the host controller. In contrast, here the battery pack is used to power a mobile medical cart and this power comes from the lithium-ion cells, not the main board assembly.

NY N303008 involved cellular telephones running on an operating system with capabilities such as cellular telephone and texting capability, ability to install and interact with applications, and a camera function. The PCBA here was found to impart the essential character to the cellular telephones. The PCBAs held the operating system software and seemingly also had at least the Bluetooth, Wi-Fi, GPS, and cellular telephone functions. The current case is distinguishable because the cellular phone in NY N303008 appears to contain a number of distinct functions and the PCBA appears to influence many if not all of these functions. In contrast, the battery packs at issue appear to only have one distinct function, which is to power the mobile medical cart, and this power comes from the lithium-ion cells, not the main board assembly. The main board assembly of these battery packs merely augment that one distinct function.

HQ H287548 involved, *inter alia*, monochrome laser printers. This decision found that the main PCB assembly and firmware was the essential character of the printer. The decision

found that the main PCB assembly is the motherboard of the printers, communicates with the PC, houses the memory in the printer, forms the image printed on the page, includes key functional circuits, including mechanical control and printing data processing. Further, the decision noted that the firmware itself provides the control program for the printers and enables the main PCB assembly to control all printer functions. Again, this case is distinguishable from the case at hand because the printer appears to have more distinct parts that are involved in different stages of the printing process than the battery pack at issue. *Compare e.g.*, HQ H287548 at 2-3 and Attachment A at 5. Moreover, the main PCB assembly and firmware in the printer appear to control a number of the distinct parts that are needed within the stages of printing. In contrast, as noted above, in this case the main board assembly only augments one distinct part of the item at issue: the lithium-ion cells.

Finally, in an email from Inventus to CBP dated December 12, 2019 as a follow up to CBP's meeting with Inventus on December 10, 2019, Inventus cites HQ H170315. HQ H170315 involved satellite telephones with a number of manufacturing scenarios. Specifically, Inventus points to scenarios III, IV and V. For scenario III, Inventus notes that in finding Singapore to be the country of origin, "CBP found that 'in this scenario, no one country's operations dominate the manufacturing operations of the telephones. The boards assembled in Malaysia are important to the function of the phone, as is the U.K. software. But the assembly in Singapore completed the phone.'" Inventus email dated December 12, 2019. For scenarios IV and V, Inventus notes that "[f]or similar reasons, CBP came to the same conclusion with respect to Scenarios IV and V in the ruling, in which one of the two PCBAs was assembled/programmed in Malaysia, the other was assembled/programmed in Singapore, and final assembly took place in Singapore." *Id.* Hence, Inventus argues that the lithium-ion cells and the main board assembly in the instant case are analogous to the application board and transceiver board in HQ H170315, and it follows that if the "PCBA for the U1Life battery pack is made in Mexico and final assembly takes place there, then Mexico would be the country of origin, even if the cells are from China." *Id.* We disagree. In contrast to HQ H170315 scenarios III, IV and V where the country of final assembly was found to be the country of origin because components and manufacturing operations of different countries were found to be equally important, as discussed above, we find that the lithium-ion cells (and not the main board assembly) constitute the "essence" of the finished article. The finished article here is a "battery" to "power[] your mobile medical cart." *See* Attachment 1 to Attachment A. This power is stored and provided by the lithium-ion cells that are sourced from China. *See e.g.*, Attachment A at 7 ("the individual cells in the battery packs are used to generate energy. . . ."). As noted in Inventus's marketing materials, the main board assembly only provides "added benefit[s]." Attachment 1 to Attachment A.

Accordingly, we agree with NY N306161 that "the battery cells, which store and provide power, impart the essence of the finished battery packs." *Id.* at 3. We further find that even if the main assembly board is later sourced from a country other than China, the battery cells are not substantially transformed by the addition of this main assembly board sourced from a country other than China (or the assembly operations in Mexico).

We affirm NY N306161. We find that NY N306161 correctly applied the substantial transformation test to determine that the country of origin for the items at issue for Section 301

purposes was China. *Id.* at 3. We further agree with NY N306161 that “[p]ursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8507.60.0020, HTSUS, unless specifically excluded, are subject to an additional 15 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, *i.e.*, 9903.88.15, in addition to subheading 8507.60.0020, HTSUS, listed above.” *Id.* at 3.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



U.S. Customs and  
Border Protection

HQ H308993

July 29, 2020

CLA-2 OT:RR:CTF:EMAIN H308993 NVF

CATEGORY: Classification

TARIFF NO.: 8539.50.00

Port Director  
U.S. Customs and Border Protection  
301 E Ocean Blvd.  
FL 7  
Long Beach, CA 90802

Attn: Brian S. Jansen, Import Specialist

RE: Application for Further Review of Protest No. 2704-20-108846; Classification of  
Bluetooth® LED Bulb

Dear Port Director:

This letter is in response to the Application for Further Review (“AFR”) of Protest No. 2704-20-108846, timely filed by All-Ways Forwarding of NY, Inc. on behalf of protestant, Merkury Innovations LLC (“Merkury”). The protest contests the classification and liquidation by Customs and Border Protection of Bluetooth® light-emitting diode (LED) bulb under heading 3924 of the Harmonized Tariff Schedule of the United States (“HTSUS”).

**FACTS:**

The merchandise at issue is identified as a Bluetooth® LED bulb, item# MI-BW904-999W, which is an LED light bulb with a built-in Wi-Fi module. According to the information provided, the article is a shape “A” light bulb with an Edison screw base, heat sink (housing), a plastic diffuser (globe), and LED and electric components. The built-in Wi-Fi module is used to facilitate the control of the light color and lighting schedule via a smartphone or voice.

The subject merchandise was imported from China on October 2, 2018 under heading 3924, HTSUS as tableware, kitchenware and other household articles and hygienic or toilet articles, of plastics. Merkury later amended its entry stating the goods were classified under heading 8517, HTSUS as other apparatus for the transmission or reception of voice, images or other data. On July 19, 2019, CBP liquidated the entry under heading 3924, HTSUS. Merkury filed a protest and Application for Further Review (“AFR”) on January 9, 2020.

In its protest, Merkury asserts that the subject merchandise should be classified under heading 8517, HTSUS which provides for: Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network. Upon reviewing the protest, the port has indicated that it believes the Bluetooth® LED bulb should be classified under heading 8539, HTSUS as light-emitting diode (LED) lamps.

**ISSUE:**

Whether a Bluetooth® LED lightbulb is classified under heading 8517, HTSUS as apparatus for the transmission or reception of voice, images or other data, or under heading 8539, HTSUS as light-emitting diode (LED) lamps.

**LAW AND ANALYSIS:**

We observe as an initial matter that the matters protested are protestable under 19 U.S.C. § 1514(a)(2) as decisions on classification and amount of duties chargeable. The subject merchandise was entered by Merkury on October 2, 2018. On July 19, 2019, CBP liquidated the entry. On January 9, 2020, Merkury timely filed a protest and AFR, within 180 days of liquidation of the first entry. Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006). Further review of the protest is properly accorded to protestant pursuant to 19 C.F.R. § 174.24(a) because the decision against which the protest was filed is alleged to be inconsistent with a previous CBP decision concerning substantially similar merchandise.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all classification purposes.

The 2018 HTSUS headings under consideration are as follows:

- 8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof.
- 8539 Electrical filament or discharge lamps, including sealed beam lamp units and ultraviolet or infrared lamps; arc lamps; light-emitting diode (LED) lamps; parts thereof.

GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

Notes 3 and 5 of Section XVI, HTSUS, which covers headings 8517 and 8539, provide the following:

3. Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.
5. For the purposes of these notes, the expression "machine" means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of chapter 84 or 85.

Heading 8517, HTSUS covers, among other things, apparatus for the transmission or reception of data, including apparatus for communication in a wireless network. CBP has classified some composite machines with Bluetooth® or Wi-Fi under heading 8517, notably wearable fitness trackers and smartwatches. Headquarters Ruling Letter (HQ) H286610 (Aug. 8, 2017); HQ H279898 (Apr. 5, 2017); HQ H265035 (Jan. 19, 2016); HQ H285617 (May 4, 2018), and HQ H282905 (Apr. 30, 2018).\*

Nonetheless, composite machines with Bluetooth® or Wi-Fi capabilities do not default to heading 8517, HTSUS, but rather are classified in the heading that describes their principal function or essential character. For example, in HQ H283180 (Jan. 21, 2020), CBP determined that certain "SmartPlugs", which could be controlled by Wi-Fi were not classified in heading 8517. In so doing, CBP observed that the principal function of the SmartPlugs was not the transmission of data but rather to control the electrical current running to appliances to which they are connected. Similarly, in HQ H281100 (June 27, 2018), CBP discussed its prior ruling concerning the classification of Bluetooth® enabled speakers and determined that the Bluetooth® chip did not impart the principal function. Notably, CBP has declined to classify items in heading 8517 when the exchange of data facilitated by Wi-Fi or Bluetooth® capability did not constitute the principal function of the subject merchandise. *See also* NY N297309 (June 20, 2018) (alarm clock with Bluetooth®); HQ H271909 (July 8, 2016) (analog watch with Bluetooth®); NY N245407 (Sep. 19, 2013) (basketball with Bluetooth®).

In this case, the subject merchandise is a Bluetooth® enabled light bulb. Aside from its Bluetooth® capabilities, the lightbulb is otherwise a standard LED bulb with an Edison screw

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\* In its protest, Merkury refers to New York Ruling Letter (NY) N255341 (July 25, 2014) to support its claim that the subject light bulbs are classified under heading 8517. In NY N255341, CBP addressed the classification of a Mako Gateway, which is used to control residential lighting and switches via a Bluetooth® enabled smartphone. CBP classified the Mako Gateway under heading 8517, HTSUS. However, the gateway at issue in NY N255341 is not similar to the subject light bulb. The gateway permits users to access a communication network and does not contain any lighting elements. Therefore, NY N255341 is not germane to this case.

base, enabling it to be used in the vast majority of available lighting devices. Although Bluetooth® transceiver can be used to turn the light bulb on and off, the principal function of the subject light bulbs is not the transmission or reception of data. Rather, to the extent that data is transmitted via Bluetooth®, it is in service of the principal function of providing light. Pursuant to Note 3 of Section XVI of the HTSUS, we find that the components of the light bulb that contribute to the transmission of data are ancillary to the principal function of providing light.

In light of the foregoing, we conclude that the Bluetooth® LED light bulb is classified under heading 8539, HTSUS as light-emitting diode (LED) lamps.

**HOLDING:**

By application of GRIs 1 (Note 3 to Section XVI) and 6, the subject Bluetooth® LED light bulb is classified in heading 8539, specifically subheading 8539.50.00 of the 2018 HTSUS, which provides for: Electrical filament or discharge lamps, including sealed beam lamp units and ultraviolet or infrared lamps; arc lamps; light-emitting diode (LED) lamps; parts thereof: Light-emitting diode (LED) lamps. The 2018 general column one rate of duty is 2% *ad valorem*.

You are instructed to DENY the protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the Customs Rulings Online Search System (“CROSS”) at <https://rulings.cbp.gov/>, which can be found on the CBP website at <http://www.cbp.gov> and other methods of public distribution.

Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division



U.S. Customs and  
Border Protection

HQ H308993

July 29, 2020

CLA-2 OT:RR:CTF:EMAIN H308993 NVF

CATEGORY: Classification

TARIFF NO.: 8539.50.00

Port Director  
U.S. Customs and Border Protection  
301 E Ocean Blvd.  
FL 7  
Long Beach, CA 90802

Attn: Brian S. Jansen, Import Specialist

RE: Application for Further Review of Protest No. 2704-20-108846; Classification of  
Bluetooth® LED Bulb

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The merchandise at issue is identified as a Bluetooth® LED bulb, item# MI-BW904-999W, which is an LED light bulb with a built-in Wi-Fi module. According to the information provided, the article is a shape “A” light bulb with an Edison screw base, heat sink (housing), a plastic diffuser (globe), and LED and electric components. The built-in Wi-Fi module is used to facilitate the control of the light color and lighting schedule via a smartphone or voice.

The subject merchandise was imported from China on October 2, 2018 under heading 3924, HTSUS as tableware, kitchenware and other household articles and hygienic or toilet articles, of plastics. Merkury later amended its entry stating the goods were classified under heading 8517, HTSUS as other apparatus for the transmission or reception of voice, images or other data. On July 19, 2019, CBP liquidated the entry under heading 3924, HTSUS. Merkury filed a protest and Application for Further Review (“AFR”) on January 9, 2020.

In its protest, Merkury asserts that the subject merchandise should be classified under heading 8517, HTSUS which provides for: Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network. Upon reviewing the protest, the port has indicated that it believes the Bluetooth® LED bulb should be classified under heading 8539, HTSUS as light-emitting diode (LED) lamps.

**ISSUE:**

Whether a Bluetooth® LED lightbulb is classified under heading 8517, HTSUS as apparatus for the transmission or reception of voice, images or other data, or under heading 8539, HTSUS as light-emitting diode (LED) lamps.

**LAW AND ANALYSIS:**

We observe as an initial matter that the matters protested are protestable under 19 U.S.C. § 1514(a)(2) as decisions on classification and amount of duties chargeable. The subject merchandise was entered by Merkury on October 2, 2018. On July 19, 2019, CBP liquidated the entry. On January 9, 2020, Merkury timely filed a protest and AFR, within 180 days of liquidation of the first entry. Miscellaneous Trade and Technical Corrections Act of 2004, Pub.L. 108-429, § 2103(2) (B) (ii), (iii) (codified as amended at 19 U.S.C. § 1514(c) (3) (2006). Further review of the protest is properly accorded to protestant pursuant to 19 C.F.R. § 174.24(a) because the decision against which the protest was filed is alleged to be inconsistent with a previous CBP decision concerning substantially similar merchandise.

Merchandise imported into the United States is classified under the HTSUS. Tariff classification is governed by the principles set forth in the General Rules of Interpretation (“GRIs”) and, in the absence of special language or context which requires otherwise, by the Additional U.S. Rules of Interpretation. The GRIs and the Additional U.S. Rules of Interpretation are part of the HTSUS and are to be considered statutory provisions of law for all classification purposes.

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GRI 1 requires that classification be determined first according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the heading and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

Notes 3 and 5 of Section XVI, HTSUS, which covers headings 8517 and 8539, provide the following:

3. Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.
5. For the purposes of these notes, the expression "machine" means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of chapter 84 or 85.

Heading 8517, HTSUS covers, among other things, apparatus for the transmission or reception of data, including apparatus for communication in a wireless network. CBP has classified some composite machines with Bluetooth® or Wi-Fi under heading 8517, notably wearable fitness trackers and smartwatches. Headquarters Ruling Letter (HQ) H286610 (Aug. 8, 2017); HQ H279898 (Apr. 5, 2017); HQ H265035 (Jan. 19, 2016); HQ H285617 (May 4, 2018), and HQ H282905 (Apr. 30, 2018).\*

Nonetheless, composite machines with Bluetooth® or Wi-Fi capabilities do not default to heading 8517, HTSUS, but rather are classified in the heading that describes their principal function or essential character. For example, in HQ H283180 (Jan. 21, 2020), CBP determined that certain "SmartPlugs", which could be controlled by Wi-Fi were not classified in heading 8517. In so doing, CBP observed that the principal function of the SmartPlugs was not the transmission of data but rather to control the electrical current running to appliances to which they are connected. Similarly, in HQ H281100 (June 27, 2018), CBP discussed its prior ruling concerning the classification of Bluetooth® enabled speakers and determined that the Bluetooth® chip did not impart the principal function. Notably, CBP has declined to classify items in heading 8517 when the exchange of data facilitated by Wi-Fi or Bluetooth® capability did not constitute the principal function of the subject merchandise. *See also* NY N297309 (June 20, 2018) (alarm clock with Bluetooth®); HQ H271909 (July 8, 2016) (analog watch with Bluetooth®); NY N245407 (Sep. 19, 2013) (basketball with Bluetooth®).

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In light of the foregoing, we conclude that the Bluetooth® LED light bulb is classified under heading 8539, HTSUS as light-emitting diode (LED) lamps.

**HOLDING:**

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Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division



U.S. Customs and  
Border Protection

HQ H308993

July 29, 2020

CLA-2 OT:RR:CTF:EMAIN H308993 NVF

CATEGORY: Classification

TARIFF NO.: 8539.50.00

Port Director  
U.S. Customs and Border Protection  
301 E Ocean Blvd.  
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Attn: Brian S. Jansen, Import Specialist

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5. For the purposes of these notes, the expression "machine" means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of chapter 84 or 85.

Heading 8517, HTSUS covers, among other things, apparatus for the transmission or reception of data, including apparatus for communication in a wireless network. CBP has classified some composite machines with Bluetooth® or Wi-Fi under heading 8517, notably wearable fitness trackers and smartwatches. Headquarters Ruling Letter (HQ) H286610 (Aug. 8, 2017); HQ H279898 (Apr. 5, 2017); HQ H265035 (Jan. 19, 2016); HQ H285617 (May 4, 2018), and HQ H282905 (Apr. 30, 2018).\*

Nonetheless, composite machines with Bluetooth® or Wi-Fi capabilities do not default to heading 8517, HTSUS, but rather are classified in the heading that describes their principal function or essential character. For example, in HQ H283180 (Jan. 21, 2020), CBP determined that certain "SmartPlugs", which could be controlled by Wi-Fi were not classified in heading 8517. In so doing, CBP observed that the principal function of the SmartPlugs was not the transmission of data but rather to control the electrical current running to appliances to which they are connected. Similarly, in HQ H281100 (June 27, 2018), CBP discussed its prior ruling concerning the classification of Bluetooth® enabled speakers and determined that the Bluetooth® chip did not impart the principal function. Notably, CBP has declined to classify items in heading 8517 when the exchange of data facilitated by Wi-Fi or Bluetooth® capability did not constitute the principal function of the subject merchandise. *See also* NY N297309 (June 20, 2018) (alarm clock with Bluetooth®); HQ H271909 (July 8, 2016) (analog watch with Bluetooth®); NY N245407 (Sep. 19, 2013) (basketball with Bluetooth®).

In this case, the subject merchandise is a Bluetooth® enabled light bulb. Aside from its Bluetooth® capabilities, the lightbulb is otherwise a standard LED bulb with an Edison screw

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\* In its protest, Merkury refers to New York Ruling Letter (NY) N255341 (July 25, 2014) to support its claim that the subject light bulbs are classified under heading 8517. In NY N255341, CBP addressed the classification of a Mako Gateway, which is used to control residential lighting and switches via a Bluetooth® enabled smartphone. CBP classified the Mako Gateway under heading 8517, HTSUS. However, the gateway at issue in NY N255341 is not similar to the subject light bulb. The gateway permits users to access a communication network and does not contain any lighting elements. Therefore, NY N255341 is not germane to this case.

base, enabling it to be used in the vast majority of available lighting devices. Although Bluetooth® transceiver can be used to turn the light bulb on and off, the principal function of the subject light bulbs is not the transmission or reception of data. Rather, to the extent that data is transmitted via Bluetooth®, it is in service of the principal function of providing light. Pursuant to Note 3 of Section XVI of the HTSUS, we find that the components of the light bulb that contribute to the transmission of data are ancillary to the principal function of providing light.

In light of the foregoing, we conclude that the Bluetooth® LED light bulb is classified under heading 8539, HTSUS as light-emitting diode (LED) lamps.

**HOLDING:**

By application of GRIs 1 (Note 3 to Section XVI) and 6, the subject Bluetooth® LED light bulb is classified in heading 8539, specifically subheading 8539.50.00 of the 2018 HTSUS, which provides for: Electrical filament or discharge lamps, including sealed beam lamp units and ultraviolet or infrared lamps; arc lamps; light-emitting diode (LED) lamps; parts thereof: Light-emitting diode (LED) lamps. The 2018 general column one rate of duty is 2% *ad valorem*.

You are instructed to DENY the protest.

In accordance with Sections IV and VI of the CBP Protest/Petition Processing Handbook (HB 3500-08A, December 2007, pp. 24 and 26), you are to mail this decision, together with the CBP Form 19, to the Protestant no later than 60 days from the date of this letter. Any reliquidation of the entry or entries in accordance with the decision must be accomplished prior to mailing the decision.

Sixty days from the date of the decision, the Office of Trade, Regulations and Rulings, will make the decision available to CBP personnel, and to the public on the Customs Rulings Online Search System (“CROSS”) at <https://rulings.cbp.gov/>, which can be found on the CBP website at <http://www.cbp.gov> and other methods of public distribution.

Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division

HQ H309758

June 8, 2020

OT:RR:CTF:VS H309758 EGJ

CATEGORY: Marking

Brenda Jacobs  
Jacobs Global Trade & Compliance LLC  
4134 N. River Street  
McLean, VA 22101

RE: Country of Origin Marking of a Hair Curling Iron

Dear Ms. Jacobs:

This is in response to your letter, dated January 31, 2020, requesting a prospective ruling on behalf of the Hong Kong Productivity Council (“HKPC”) regarding the country of origin marking of a hair curling iron. You note that the HKPC is an organization created by statute to support small and medium sized enterprises in Hong Kong, including export-oriented manufacturers. As such, you state that HKPC is an entity with a direct and demonstrable interest in the question presented in your request letter.<sup>1</sup>

FACTS:

The subject merchandise is a hair curling iron which is comprised of more than 40 components made up of different materials, including molded plastic, metal, and wire. You note that the individual parts will be manufactured and assembled in both China and Vietnam. You state that the manufacturing steps are as follows:

- 1) The plastic components of the curling iron are formed by injection molding;

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<sup>1</sup> Under 19 Code of Federal Regulations (“CFR”) § 177.1(c), the following people or entities may request a ruling: “any person who, as an importer or exporter of merchandise, or otherwise, has a direct and demonstrable interest in the question or questions presented in the ruling request, or by the authorized agent of such a person.” See also Headquarters Ruling Letter (“HQ”) 959528, dated October 1, 1996 (issued to the Singapore Trade Development Board).

- 2) The metal barrel and flipper are cut, punched, and stamped into their finished shapes;
- 3) The metal barrel and flipper are sand blasted and painted;
- 4) The internal heater assembly is built from components such as a thermal fuse, mica sheet, and a lead wire;
- 5) The bare printed circuit board is populated with discrete components to form the printed circuit board assembly (“PCBA”) which controls the on/off/high/low settings on the curling iron;
- 6) The subassemblies are assembled together into the finished curling iron, which involves inserting the heater assembly into the barrel, inserting the PCBA, soldering the lead wires, attaching the power cord, and performing the final assembly of the hardware and the plastic components; and finally,
- 7) The curling iron is tested, inspected, cleaned, and then packaged in its final retail packaging.

You have asked us to determine the country of origin for the instant curling iron under three potential scenarios. In Scenario 1, the metal hardware portions of the curling iron would be manufactured, sandblasted, and painted in China. The internal PCBA and heater assembly would be assembled in China, and the heater assembly would be inserted into the barrel in China. Then, these parts would be shipped to Vietnam. In Vietnam, the plastic components would be created by injection molding. The plastic components and subassemblies from China would then be combined into the finished curling iron in Vietnam.

In Scenario 2, the PCBA would be populated in Vietnam rather than China. However, all of the remaining steps would be the same as in Scenario 1. In Scenario 3, the hardware, heater assembly, and the plastic components will be manufactured in China. However, the PCBA will be populated and the final assembly will take place in Vietnam.

#### ISSUE:

For each of the three aforementioned scenarios, what is the country of origin of the curling iron?

#### LAW AND ANALYSIS:

The marking statute, section 304, Tariff Act of 1930, as amended (19 U.S.C. § 1304) provides that, unless excepted, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. Congressional intent in enacting 19 U.S.C. § 1304 was “that the ultimate purchaser should be able to know by an inspection of the marking on the imported goods the country of which the goods is the product. The evident purpose is to mark the goods so that at the time of purchase the ultimate purchaser may, by knowing where the goods were produced, be able to buy or refuse to buy them, if such marking should influence his will.” *United States v. Friedlaender & Co. Inc.*, 27 C.C.P.A. 297, 302, C.A.D. 104 (1940).

The country of origin marking requirements and the exceptions of 19 U.S.C. § 1304 are set forth in Part 134, Customs Regulations (19 C.F.R. Part 134). Section 134.1(b), Customs Regulations (19 C.F.R. § 134.1(b)), defines “country of origin” as the country of manufacture, production or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of the marking laws and regulations. A substantial transformation is said to have occurred when an article emerges from a manufacturing process with a name, character, and use which differs from the original material subjected to the process. *United States v. Gibson-Thomsen Co.*, 27 C.C.P.A. 267 (C.A.D. 98) (1940); *Texas Instruments, Inc. v. United States*, 681 F.2d 778, 782 (1982).

The question presented is whether the parts from China are substantially transformed when they are shipped to Vietnam and are assembled together with the parts from Vietnam. In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. *Belcrest Linens v. United States*, 573 F. Supp. 1149 (Ct. Int'l Trade 1983), *aff'd*, 741 F.2d 1368 (Fed. Cir. 1984).

Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. Factors which may be relevant in this evaluation may include the nature of the operation (including the number of components assembled), the number of different operations involved, and whether a significant period of time, skill, detail, and quality control are necessary for the assembly operation. If the manufacturing or combining process is a minor one which leaves the identity of the article intact, a substantial transformation has not occurred. *Uniroyal, Inc. v. United States (“Uniroyal”)*, 3 C.I.T. 220, 542 F. Supp. 1026 (1982), *aff'd* 702 F. 2d 1022 (Fed. Cir. 1983). In addition, the U.S. Court of International Trade (“CIT”) noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer Battery, Inc. v. United*

*States*, 190 F. Supp. 3d 1308, 1319 (Ct. Int'l Trade 2016), citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993).

In Headquarters Ruling Letter ("HQ") H303864, dated December 26, 2019, an electric motor from China was shipped to Mexico for assembly with the impeller, the seal, and the plastic housing to form the finished pump assembly. In that case, we noted that the assembly was rather simple – it involved press fitting the parts into each other. Moreover, the electric motor was the most expensive and substantive part of the finished pump assembly. We found that it imparted the "very essence" of the pump assembly, as it turned the impeller and moved the fluid through the pump.

Similar to the electric motor in HQ H303864, we find that the barrel, flipper, and heater constitute the "very essence" of the finished curling iron. These are the elements of the curling iron which actually heat and curl the hair. We also note that their end use is predetermined before they are shipped to Vietnam, and after they are assembled together with the plastic and other components in Vietnam, their use as parts of a hair curling iron remains unchanged.

You state that the plastic components and the PCBA are also important. You state that the plastic components form the handle and give the curling iron its final shape. You also note that the PCBA controls both the power and the heat settings for the finished curling iron. We agree that the plastic components and the PCBA are important components of the curling iron. Indeed, several rulings have recently been issued which state that the country of origin of the final product is the country where the PCBA is assembled. See, e.g. New York Ruling Letter ("NY") N311826 (origin of a USB charging receptacle), dated June 2, 2020; NY N310880, dated April 14, 2020 (origin of a docking station with ports for multiple devices); and NY N310827, dated April 8, 2020 (origin of a wireless doorbell speaker). However, we note that in all of these rulings we found that the PCBA was the very essence of the finished article. In NY N311826 and NY N310880, the relevant ports and connectors were attached directly to the PCBA to facilitate a connection between devices. In NY N310827, all of the elements of the wireless doorbell speaker were directly attached to the PCBA. In all of these rulings, the PCBA and its attachments were encased in a simple plastic housing.

Conversely, the PCBA in this case plays a subsidiary role to the metal barrel, flipper, and the heating element. The PCBA serves as the on/off switch and the heat level setting for the finished curling iron, and does not provide the basic functioning of the product which is to style hair. Therefore, because of its subsidiary role in the functioning of the finished product, the country of origin of the PCBA assembly does not determine the country of origin in this case.

Rather, we take the view that the barrel, the flipper, and the heating subassembly are what actually curl the hair. As their end use is predetermined and the subsequent assembly is simple, we find that they are not substantially transformed when they are assembled with the other parts into the finished curling iron in Vietnam. For these

reasons, we find that the country of origin of the hair curling iron will be China for all three of the potential manufacturing scenarios set forth above.

**HOLDING:**

Based on the facts of this case, we find that under Scenarios 1, 2, and 3, the country of origin of the hair curling iron is China.

Please note that 19 C.F.R. § 177.9(b)(1) provides that “[e]ach ruling letter is issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect. The application of a ruling letter by a CBP field office to the transaction to which it is purported to relate is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based.”

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



HQ H310170

June 25, 2021

**CLA-2 OT:RR:CTF:EMAIN H310170 ALS**

**CATEGORY:** Classification

**TARIFF NO.:** 8418.69.01

H. Michael Leightman  
Ernst & Young LLP  
5 Houston Center, Suite 1200  
1401 McKinney Street  
Houston, Texas 77010

**RE:** Tariff classification of Liquefied Natural Gas Plant

Dear Mr. Leightman:

This letter is in reply to your request for a ruling on the tariff classification, under the Harmonized Tariff Schedule of the United States (“HTSUS”), of a Liquefied Natural Gas (LNG) Plant on behalf of Port Arthur LNG LLC. Our decision is set forth below.

**FACTS:**

The LNG Plant consists of the following main components:

- Gas Inlet Receiving Unit- meters, controls, and conditions natural gas;
- Mercury Removal Unit- removes mercury from the feed gas due to its corrosive effect on the machinery in the liquefaction unit;
- Acid Gas Removal Unit- removes the acidic gases to avoid corrosion, freezing, and plugging problems.
- Dehydration Unit- dehydration of the gas feeds helps minimize corrosion, removes water and prevents the hydrate formation of clogs at the pipelines when the materials are under cryogenic conditions;
- Natural Gas Liquids Fractionation Unit- removes the natural gas liquid condensate and benzene from the feed gas to prevent freeze-out in the liquefaction unit.

## Stages of Processing

- Pre-Cooling Stage: Accepts warmed natural gas from the Heavy Hydrocarbon Unit and processes the natural gas through heat exchangers, where it interacts with liquid propane to extract heat from the natural gas. When the natural gas reaches 35 degrees Celsius, it flows into the Main Cryogenic Heat Exchanger (MCHE). At this point, the propane flows into a compressor which increases the pressure and temperature of the propane. An air-cooled condenser then cools and condenses the propane back into a warm, high pressure liquid, which is then expanded across a valve to further cool it. The cooled low-pressure propane is then sent back into the MCHE to cool more natural gas. This process is a continuous cycle.
- Sub-Cooling and Liquefaction Stage: Similar to the Pre-Cooling Stage, except for the following—1) the MCHE has a coil-wound design, as opposed to the kettle-type design in the Pre-Cooling Stage; 2) three (3) sets of coiled tubes wrap around each other in a spiral; 3) as the natural gas flows through the MCHE coils, its remaining heat energy is cross-exchanged with the refrigerant passing through the other coils, which cools the natural gas to its dew point, - 162 degrees Celsius; 4) the LNG then passes across an expansion valve to reduce its pressure. At this point, some of the LNG vaporizes and is sent back to fuel the turbines that drive the compressors. This process is also a continuous cycle.

The natural gas is transported to and through the LNG Plant via pipelines.

## **ISSUE:**

Is the Liquefied Natural Gas Plant properly classified under HTSUS heading 8418, which provides for “Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof”, or under HTSUS heading 8419, which provides for “Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof”?

## **LAW AND ANALYSIS:**

Classification under the HTSUS is determined in accordance with the General Rules of Interpretation. GRI 1 provides that the classification of goods shall be “determined according to the terms of the headings and any relative section or chapter notes.” In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, GRIs 2 through 6 may be applied in order.

The following headings and subheadings of the HTSUS are under consideration in this case:

8418 Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof:

    Other refrigerating or freezing equipment; heat pumps:

8418.69.01      Other...

\* \* \*

8419 Machinery, plant or laboratory equipment, whether or not electrically heated (excluding furnaces, ovens and other equipment of heading 8514), for the treatment of materials by a process involving a change of temperature such as heating, cooking, roasting, distilling, rectifying, sterilizing, pasteurizing, steaming, drying, evaporating, vaporizing, condensing or cooling, other than machinery or plant of a kind used for domestic purposes; instantaneous or storage water heaters, nonelectric; parts thereof:

8419.60      Machinery for liquefying air or other gases:

8419.60.50      Other...

Note 4 to Section XVI, HTSUS, which contains Chapter 84 and thus headings 8418 and 8419, provides the following:

Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While not legally binding, the ENs provide a commentary on the scope of each heading of the HS and are thus useful in ascertaining the proper classification of merchandise. See T.D. 89-90, 54 Fed. Reg. 35127 (August 23, 1989). The EN for heading 8418 provides the following under Section (I) Refrigerators, Freezers, and Other Refrigerating or Freezing Equipment, Subsection (A) Compression Type Refrigerators in relevant part:

Their essential elements are:

- (1) **The compressor** which receives expanded gas from the evaporator and delivers it under pressure to
- (2) **The condenser** or liquefier where the gas is cooled and liquefied, and
- (3) **The evaporator**, the active cooling element, consisting of a tubular system in which the condensed refrigerant, released through an expansive valve, evaporates rapidly with the absorption of heat from the surrounding air, or, in the case of large cooling installations, from brine or a solution of calcium chloride kept in circulation around the evaporator coils.

[Emphasis in original.]

The EN for heading 8419 provides the following in relevant part:

It should be noted that this heading **does not include**:

- \* \* \*
- (h) Refrigerating machinery and heat pumps of **heading 84.18**.

[**Emphasis** in original.]

The LNG Plant's compressor, condenser, and evaporator functions are described above in the Pre-Cooling Stage. As such, the LNG Plant contains the essential elements of a refrigerator. And while some of the components undoubtedly would be classified outside of heading 8418, HTSUS, if imported separately, the components that make up the LNG Plant, configured as described, contribute together to perform the function of refrigerating the natural gas to produce liquified natural gas. With the EN to heading 8419 excluding refrigerating machinery of heading 8418, we conclude that the LNG Plant is a refrigerator that is properly classified under heading 8418, HTSUS.

Specifically, the LNG Plant is properly classified under subheading 8418.69.01, HTSUS, which provides for "Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof: Other refrigerating or freezing equipment; heat pumps: Other..."

#### **HOLDING:**

By application of GRIs 1 (Note 4 to Section XVI) and 6, the Liquefied Natural Gas Plant is properly classified under heading 8418, HTSUS. Specifically, it is classified under subheading 8418.69.01, HTSUS. The general column one rate of duty, for merchandise classified in this subheading is Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8418.69.01, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, if the subject merchandise is of Chinese origin, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8418.69.01, HTSUS, listed above.

The HTSUS is subject to periodic amendment, so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, including information on exclusions and their effective dates, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china> respectively.

Duty rates are provided for your convenience and subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at [www.usitc.gov](http://www.usitc.gov).

Please note that this ruling letter is "issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect." 19 CFR 177.9(b)(1). The application of this ruling letter "is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based." See id. CBP therefore reserves the right to verify all facts as noted herein. Furthermore, this ruling letter will be "applied only with respect to transactions involving articles identical to the sample submitted with the ruling request or to articles whose description is identical to the description set forth in the ruling letter." 19 CFR 177.9(b)(2).

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Gregory S. Connor, Chief  
Electronics, Machinery, Automotive, and  
International Nomenclature Branch



U.S. Department of Homeland Security  
Washington, DC 20229  
U.S. Customs and Border Protection

**HQ H311606**  
**June 16, 2021**

**OT:RR:CTF:VS RSD H311606**

**CATEGORY: ORIGIN**

Damon V. Pike, Esq.  
BDO  
1601 Forum Place, 9th Floor  
Centurion Plaza  
West Palm Beach, FL 33401

**RE:** Country of Origin of the Wacom Cintiq Pro 16 Drawing Tablet; Section 301 Measures

Dear Mr. Pike:

This is in response to your correspondence, dated June 11, 2020, on behalf of your client, Wacom Technology Corporation, ("WTC"). In your letter, you have requested a ruling pursuant to 19 C.F.R. Part 177 regarding the country of origin of the Wacom Cintiq Pro 16 drawing tablet.

**FACTS:**

The merchandise under consideration is identified as the Wacom Cintiq 16 with Pro Pen 2 (Cintiq 16). The Cintiq 16 is a device known as a drawing tablet, and it is described as a multifunctional device that has a liquid crystal display (LCD) with a touch screen that operates in conjunction with automatic data processing (ADP) machines. Therefore, the Cintiq 16 does not operate as a stand-alone unit. The user of the Cintiq 16 can make professional drawings and images, such as animations and industrial designs, and is able to draw directly onto the LCD screen by using a specialized stylus, a pen-like drawing apparatus stylus. The Cintiq 16 only functions as a drawing tablet and does not perform any other operations. The product is comprised of an LCD display module, front and back cover assemblies, and various printed circuit board assemblies (PCBAs). When it is sold to the consumer, the Cintiq16 is retail packaged with a power adapter, specialized cables, and the stylus pen.

The Cintiq 16 contains technology that allows the tablet to capture each pen stroke pressure, and permits the tablet to tilt digitally to replicate the use of a pencil, paintbrush, etc. The stylus pen imported with the Cintiq 16 interacts with the tablet's pressure-sensitive features to let the user determine how thick or thin a line should be by instantly capturing handwritten notations. The tablet wirelessly interacts with the stylus pen by plotting its location in microseconds as it makes the user's edits onto the screen.

Once the Cintiq 16 is connected, the display image from the ADP machine's monitor is duplicated on the Cintiq 16 LCD. Thus, the LCD screen on the Cintiq 16 tablet functions as a secondary display while users create and/or edit content via the touch surface. Likewise, users have the capability to interact with their project and can visualize the results via an ADP machine's display output.

To perform its functions, the Cintiq 16 uses four PCBA's which are the electro-magnetic resonance (EMR) board, the keypad board, the scaler board, and the sensor control board (SCB). In New York Ruling Letter (NY) N308714, dated January 23, 2020, we considered the country of origin of a previous version of the Cintiq 16 that was produced with a different production process. The manufacturing process for making the new Cintiq16, SKU DTK-1660/KO-AB and KO-AC has now been changed. In NY N308714, three of the four PCBA boards contained in the device, the EMR board, the keypad board, and the scaler board were made in China, and only the SCB PCBA was manufactured in Taiwan. Now, WTC will populate two additional PCBA's, the scaler board and the keypad board with components using Surface Mount Technology ("SMT") in Taiwan instead of China. This means that under the new proposed production scenario, the keypad board, scaler board, and SCB will be produced in Taiwan instead of China.

The first two stages of production of the Cintiq 16 involves manufacturing two subassemblies in China, which are identified as the back-cover module and the front-cover module. The back cover module contains air vents inside the plastic cover, a pen tag and two small rubber anti-rolling strips on the external body of the plastic cover. The assembly of the front-cover module consists of (1) placing glass on the plastic cover; (2) attaching the LCD panel behind the cover; (3) attaching the EMR board behind the LCD panel; and (4) placing the open cells and the backlight behind the cover.

The Chinese-origin back-cover and front-cover modules will then be shipped to Taiwan together with the stylus pen, pen holder, AC adaptor, and a power cable. In addition, the following three bare Printed Circuit Boards ("PCBs") (bare SCB PCB, bare scaler board PCB, and bare keypad board PCB) will be shipped to Taiwan for further manufacturing into the finished PCBA's through SMT. In Taiwan, the SMT processes will be used to populate each of the bare PCB's boards with the various electronic components so that they will become fully built PCBA's. Upon completion of the SMT processes, Japanese-origin WTC tablet firmware will be installed on the SCB and Taiwanese-origin scaler board firmware will be installed on the scaler board.

The scaler board is attached to the front-cover module. The SCB is attached to the LCD panel in the front-cover module so that it can sense and capture each pen stroke's pressure on the bare EMR board. Without the SCB underlying it, it is claimed that the EMR board will not function as a sensor. The keypad board is also assembled to the front-cover module, and it is interconnected to the scaler board with cables to allow the transmission of signals and to function as a complete unit. The back-cover module is then combined with the front-cover module with screws.

Counsel contends that the EMR board is a simple PCB board with tiny magnetic sensor coils, and it has no electronic components on it. It is attached behind the LCD screen to allow the sensor coils to magnetically capture each pen stroke. Counsel also claims that the SCB monitors the movement of the sensor coils attached on the EMR board, and that it recognizes each pen stroke, the pen's location, pressure, and speed, and that it transmits these interpreted, digitized input signals to the output unit, i.e., the scaler board.

In addition, counsel states that the role of the scaler board is as an output unit that generates images on the LCD screen. The scaler board has the highest number of components among the four different PCBA's. While the scaler board is responsible for producing the images on the LCD screen, as an alternative the consumer/artist can still use the Cintiq 16 tablet without the LCD screen, since the user can always view drawings produced on a connected external monitor.

The fourth and final PCBA in the Cintiq 16 is the keypad board (called the "power switch"). It is responsible for directing power currents in the Cintiq 16 tablet. It functions basically as an on and off switch.

## **ISSUE:**

What is the country of origin of the subject Cintiq 16 drawing tablet?

## **LAW AND ANALYSIS:**

The United States Trade Representative ("USTR") has determined that an additional ad valorem duty will be imposed on certain Chinese imports pursuant to USTR's authority under Section 301(b) of the Trade Act of 1974 ("Section 301 measures"). See Section XXII, Chapter 99, Subchapter III, U.S. Note 20(r), HTSUS. The Section 301 measures apply to products of China enumerated in Section XXII, Chapter 99, Subchapter III, U.S. Note 20(s)(i), HTSUS.

When determining the country of origin for purposes of applying trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character, or use, different from that possessed by the article prior to processing. See *Texas Instruments, Inc. v. United*

States, 681 F.2d 778 (CCPA 1982). In deciding whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. See Belcrest Linens v. United States, 6 CIT 204, 573 F. Supp. 1149 (1983), aff'd, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. Factors which may be relevant in this evaluation may include the nature of the operation (including the number of components assembled), the number of different operations involved, and whether a significant period of time, skill, detail, and quality control are necessary for the assembly operation. See C.S.D. 80-111, C.S.D. 85-25, C.S.D. 89-110, C.S.D. 89-118, C.S.D. 90-51, and C.S.D. 90-97. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative

Counsel points out that there are four major components that make up the Cintiq 16 tablet. They are the SCB, scalar board, keypad board, and front-cover module. Consistent with CBP's previous decisions on PCBAs, populating PCBs with various microelectronic components by using SMT constitutes a substantial transformation of the blank PCB boards and individual microelectronic components contained on the boards. See C.S.D 19 Cust. Bull. 844 (1985). Therefore, we find that the country of origin of the three individual PCBAs that are populated with components in Taiwan using SMT, (the SCB, the Scaler Board, and the Keypad Board) is Taiwan. However, in determining the country of origin of the finished Cintiq 16, we must analyze whether these Taiwanese origin PCBAs and the other manufacturing operations performed in Taiwan determine its country of origin when combined with the Chinese-origin components.

NY N308714 explained that the finished Cintiq 16 consisted of several discrete subassemblies that were previously manufactured in China. Furthermore, it was pointed out that each of the Chinese subassemblies was dedicated for use in the Cintiq 16, such that they had no other purpose other than as components of the subject input/output device. The ruling further noted that the assembly operations performed in Taiwan, which consisted of attaching, fastening, and taping and/or gluing, were not very complex. The Cintiq 16 was produced by joining these subassemblies together to form a touch screen input/output device, but the Chinese subassemblies did not undergo a physical change in Taiwan by the assembly operations performed in that country. Therefore, it was determined in NY N308714 that the assembly process performed in Taiwan did not result in a substantial transformation of the Chinese origin components and subassemblies. The components themselves were not transformed in Taiwan into a new and different article of commerce with a name, character, and use distinct from

the articles which were exported from China. Consequently, NY N308714 held that the Wacom Cintiq 16 with Pro Pen 2, PN DTK1660, was a product of China for origin and marking purposes.

As has already been noted, since the issuance of NY N308714, WTC has changed the way the Cintiq 16 will be manufactured by having two additional PCBA's, the scaler board and the keypad board, populated with electronic components using SMT in Taiwan, instead of China. This means that under this new proposed production process, three out of the four PCBAs contained in the Cintiq 16, the keypad board, scaler board, and SCB, are now produced in Taiwan instead of China.

Counsel contends that the Taiwanese-made PCBAs impart the essence to the Cintiq 16 drawing tablet and that three of the four PCBAs used in the Cintiq 16 will now be made in Taiwan. Counsel emphasizes the importance of the SCB PCBA because it is the component in the drawing tablet that provides the specialized pressure sensitive technology used in the drawing process and what separates the Cintiq 16 drawing tablets from similar devices like other tablets which also permit basic drawing onto an LCD screen with a stylus, such as an "Apple iPad" or a "Microsoft Surface." It is this technology why consumers would choose to buy the Cintiq 16 drawing tablet. In addition, counsel points out that the Taiwanese-made PCBAs are more sophisticated than the Chinese-made subassemblies and parts, such as the EMR board, and they contain far more individual components. Counsel maintains that the accessories, such as the stylus pen, the power adapter, and specialized cables that are sold together with the Cintiq 16 tablet should not be given a lot of weight in determining the country of origin of the finished product.

In cases concerning the country of origin of a device containing multiple PCBAs, CBP has examined the function of the PCBAs contained in the device to determine the origin of the device. For instance, in NY N308544, dated January 15, 2020, CBP considered the country of origin of a satellite television receiver and an entertainment system which consisted of two primary PCBAs from Taiwan and two auxiliary PCBAs from China (among others). The final assembly was performed in China. CBP determined that the country of origin of the receiver was Taiwan because (1) the two primary PCBAs from Taiwan imparted the essence of the finished product; and (2) the assembly process performed in China did not substantially transform these primary PCBAs.

Accordingly, in analyzing what is the country of origin of the Cintiq 16, we consider the various functions of the components of the Cintiq 16 to see if they determine the essence of the finished product. We recognize that the Cintiq 16 is a combined input/output device that has two distinct functions. The first function is that of an input device by manipulating images that are drawn using a specialized uniquely suited stylus onto the LCD screen. The second function of the Cintiq 16 is to perform as an output device by showing the images drawn on the LCD screen of the Cintiq 16 and, at the same time, onto a monitor of a linked ADP machine, such as a computer if that

computer has a monitor connected to it. However, it is noted that if an attached desktop PC does not have a monitor and the Cintiq 16 is plugged into the desktop, the LCD of the Cintiq 16 will function as the primary monitor with a touch surface. Consequently, an attached monitor from the ADP machine is not required for the Cintiq 16 to function as a drawing tablet.

It is also noted that for the drawing tablet to create an image, an electromagnetic signal between the stylus and the PCBAs located in the drawing tablet must be generated. The magnetic field emanating from the stylus pen is recognized by sensor boards (EMR Board and the SCB PCBA). The electromagnetic resonance technology allows for the stylus pen's location, pressure, and speed to be tracked and registered. The Chinese origin stylus pen generates a data signal which is detected by the tablet. When a user draws a line using the stylus, the coil circuit transfers the signals to the main circuit inside the stylus. By using electromagnetic signals, the tablet can sense the position of the stylus. The tablet generates an electromagnetic signal, which is received by a circuit in the stylus. The stylus works as an antenna that receives the signal and generates another electromagnetic field that "talks" back to the tablet. The SCB board receives a signal from the stylus and, through its pressure sensitive technology, contributes to making the image drawn on the Cintiq 16. The SCB monitors the movement of the sensor coils attached on the EMR board, and recognizes each pen stroke, the pen's location, pressure, and speed, and transmits these interpreted, digitized input signals to the output unit, *i.e.*, the scaler board. Without the SCB underlying it, it is claimed that the EMR board does not function as a sensor. In other words, it is the interaction between the Chinese origin stylus and the Chinese origin EMR board with the Taiwanese origin SCB board that allows the Cintiq 16 to generate a visible image.

The fact that the image shown on the LCD screen is duplicated on a monitor and on a connected ADP machine does not negate the fact that the Cintiq tablet 16 also functions as an output device by displaying an image on its LCD screen. With respect to which components of the Cintiq 16 impart its output function, we note that the Chinese-made LCD panel subassembly displays the image of what is being drawn as well as duplicating the primary display. However, the Taiwanese-made scaler board also greatly contributes to allowing an image to be displayed. Thus, again, it is the combination of Taiwanese and Chinese components in the Cintiq 16, that allows the Cintiq 16 to function as an output device that can display images.

Counsel contends that the greater number of components on the three Taiwanese PCBA boards indicates that they are more complex, and that they are the most important of the PCBAs contained in the Cintiq 16. We do not necessarily agree that the sheer number of electronic individual components contained on the PCBA boards means that these PCBA boards play a more vital role in the function of the device, which is to generate and display images and designs. Rather, we believe that the role of the components and the subassemblies must be considered and how they function in the finished device to determine if there are dominant components which

impart the essence of the device. In this instance, it is the interplay between the stylus, EMR SCB, scaler boards, and LCD that allow the Cintiq 16 to generate the images and to display those images onto a screen.

Counsel also points out that the Cintiq 16 is equipped with a pressure-sensitive mechanism that lets an artist put a certain amount of nuance into the computer-aided drawings. With this capability, a user of the Cintiq 16 can mimic traditional artistic techniques, such as airbrushing. When it senses the pressure that a user applies to the stylus, the Cintiq 16 can make better images that are more precise as well as more creative or artistic. It is our understanding that the Taiwanese origin SCB PCBA, with the accompanying software, is the component of the Cintiq 16 that is chiefly responsible for this pressure-sensitive mechanism. Still, the SCB and the accompanying software are not the only items in the Cintiq 16 that are responsible for the creation of the images. Rather, while the pressure-sensitive technology helps to make the images or designs generated on the Cintiq 16 to be more creative, artistic, and precise, we nonetheless do not believe that the pressure sensitive technology of the Cintiq 16 drawing tablet should be the sole basis of determining its country of origin because this specialized technology merely represents only an enhancement of the tablet's basic functionality.

In this case, as noted, both the Chinese and Taiwanese components of the Cintiq 16 tablet play a vital role in the functions that allow the user to create images that can be electronically displayed on a screen. Accordingly, since we cannot ascertain dominant components, including the PCBAs, which are more important in providing the essence to the finished Cintiq 16 drawing tablet, we look to the nature of the processing operations to see where the most significant work involved in making the Cintiq 16 is being performed.

In HQ H015324, CBP was asked to determine the country of origin of stereoscopic displays assembled in the U.S. from non-U.S. parts. The displays consisted of two LCD monitors from China or Taiwan, mounted in a custom-made stand with a special beamsplitter mirror mounted at a bisecting angle between the two monitors. A graphics card in the computer separately transmitted right eye and left eye video. The importer would send one of the monitors to a third-party in the U.S. for an optical transformation process, after which the displays would be assembled, aligned, and tested. CBP found that the processing and assembly operations in the U.S. resulted in a substantial transformation of the imported LCD monitors and the beamsplitter mirror. We found that the polarization process performed in the U.S. changed the essential character of the LCD and imparted the stereoscopic functionality to the entire system. In addition, the assembly, testing and alignment of the display required a significant amount of time and precision by skilled technicians. In other words, it was the extensive processing performed in Taiwan that determined the country of origin of the stereoscopic displays.

In this case, under the new proposed production scenario, we find that the most significant work in manufacturing of the Cintiq 16 is now being performed in Taiwan.

This processing work now includes the production of the three PCBA boards, the SCB PCBA, the scaler board, and the keypad board, with the addition of the Taiwanese firmware. We note that building the three PCBA boards is technically intricate and a complex operation. It involves using SMT to populate a myriad of electronic components, including the attachment of the active and passive elements as well as other components onto a bare printed circuit board by soldering, gluing and other means. In addition to the intricate work of populating the components onto the blank PCB boards, they will be programmed with specially written firmware and software, which lets the Cintiq 16 tablet perform its function as a drawing tablet. Consequently, in this new production scenario, the production operations performed in the Taiwan are more extensive and complex than the work that was being performed in Taiwan in NY N308714. In addition to producing the three PCBAs in Taiwan, other processing operations will also be performed in Taiwan to manufacture the Cintiq 16m, including installing the PCBAs into the housing, connecting cables, installing firmware, and final assembly of all the various components to produce the finished tablets. We note that the total processing operation that will be performed in Taiwan to make the Cintiq 16 requires a significant amount of time and skill to complete.

Based on the information provided in this case, we find that the proposed processing and assembly operations performed in Taiwan will result in a substantial transformation of the Chinese components of the Cintiq 16, which are shipped to Taiwan. Therefore, under the new production scenario that Counsel has set forth in his most submission, we find that the country of origin of the Cintiq 16 drawing tablet is Taiwan. As a product of Taiwan, in accordance 19 U.S.C. 1304, the Cintiq 16 drawing tablet must be marked to indicate that its country of origin is Taiwan. In addition, because the Cintiq 16 drawing tablet is a product of Taiwan and not China, it will not be subject to Section 301 duties.

**HOLDING:**

The country of origin of the Cintiq 16 drawing tablets is Taiwan, and in accordance with the requirements of 19 U.S.C. 1304, it must be marked to indicate that its country of origin is Taiwan. As the merchandise is not a product of China, for the purposes of the application of subheading 9903.88.03, HTSUS, Section 301 measures do not apply.

A copy of this ruling letter should be attached to the entry documents filed at the time the goods are entered. If the documents have been filed without a copy of this

ruling, it should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



**HQ H312223**

November 9, 2021

**OT:RR:CTF:EMAIN H312223 SKK**

**CATEGORY:** Classification

**TARIFF NOS:** 8526.91.00; 9013.80.80

Eric Segal  
Panasonic Corporation of North America  
Two Riverfront Plaza  
Newark, NJ 07102

**Re:** Revocation of NY N304264; NY N213872; NY N108329, NY N300201, NY N301862, NY N201495, NY N108330, and NY N148555; Modification of NY N168766; Telematics device; Telemetry device; Fleet management device; Fleet tracker; Asset tracker; Cargo tracker.

This ruling is in reference to New York Ruling Letter (NY) N304264, dated May 22, 2019, in which U.S. Customs and Border Protection (CBP) classified a telematics device under heading 8517, Harmonized Tariff Schedule of the United States (HTSUS), specifically subheading 8517.62.00, HTSUS, which provides for “[T]elephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus:.” Upon reconsideration, we have determined that the tariff classification of the merchandise at issue in NY N304264 is incorrect.

CBP has also reviewed NY N213872, dated May 16, 2012, NY N108329, dated June 28, 2010, NY N300201, dated September 11, 2018, and NY N301862, dated December 11, 2018, which also involve the classification of telemetry devices in heading 8517.62.00, HTSUS. CBP has also undertaken the review of telemetry devices classified in NY N201495, dated February 14, 2012, NY N168766, dated June 21, 2011, NY N108330, dated June 22, 2010, and NY N148555, dated March 3, 2011, under heading 8526, HTSUS, specifically subheading 8526.91.00, HTSUS, which provides for “[R]adar apparatus, radio navigational aid apparatus and radio remote control apparatus: Other: Radio navigational aid apparatus.” We have also determined that the tariff classification of the merchandise at issue in these rulings is incorrect.

Upon reconsideration, we have determined that the tariff classification of the subject merchandise at issue in the above rulings is incorrect or partially incorrect. Accordingly, pursuant to the analysis set forth below, CBP is revoking NY N304264, NY N213872, NY N108329, NY N300201, NY N301862, NY N201495, NY N108330, and NY N148555 and modifying NY N168766.

Pursuant to section 625(c)(1), Tariff Act of 1930 (19 U.S.C. 1625(c)(1)), as amended by section 623 of Title VI, a notice proposing to revoke NY N304264, NY N213872, NY N108329, NY N300201, NY N301862, NY N201495, NY N108330, and NY N148555, and to modify NY N168766, was published on September 29, 2021, in Volume 58, Number 38 of the Customs Bulletin. No comments were received in response to the proposed action.

## FACTS:

CBP rulings classifying telematics devices in heading 8517, HTSUS:

- NY N304264: The subject articles are identified as "Telematic Control Units," referenced item numbers 51986538 and 519865390. The devices are designed for installation in vehicles and connect to a Controller Area Network (CAN bus).<sup>1</sup> They communicate vehicle data to a backend server. They feature an internal battery, BLE 4.2 connectivity, LTE/4G/3G/2G cell modem, GPS/GLOANASS functionality, and internal cellular and GPS antennas. The GPS functionality provides mobile phone access via the device to a vehicle's position and routes the phone to that vehicle. The GPS functions to provide location data.
- NY N213872: The subject article is a telemetry device, identified as the "XT6000G." The device mounts on a refrigerated ship container. It collects GPS location data and transmits/receives data (i.e., alarms, changes in power or environmental conditions) between the container's microcontroller and the external server. The device features an integrated 3G modem and GPS to provide location data.
- NY N108329: The subject articles are identified as the "Communicator 500" and "Communicator 1000." Both items are used for fleet management telemetry communications. The "Communicator 500" is a cellular CDMA/EvDO (transmission and reception) communications platform for vehicle fleets and includes an integrated GPS for location tracking. The unit mounts inside a vehicle and offers multiple input and output ports for monitoring vehicle functions and status. The "Communicator 1000" is a high speed, secure mobile hotspot available with GSM or CDMA cellular (transmission and reception) technology. This device integrates a 3G cellular modem, GPS, and wireless LAN technologies in a single vehicle-mounted platform. The "Communicator

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<sup>1</sup> A Controller Area Network (CAN bus) is a standard serial communication protocol, meaning that its support of distributed real-time control and multiplexing allows for the interchange of information among the different components of a vehicle. See <https://blog.ansi.org/2017/02/controller-area-network-can-standards-iso-11898/> (site last visited July 2021).

1000” reduces fleet operational costs by tracking and improving vehicle-centric metrics, such as driver performance and safety behavior.

- NY N300201: The subject articles are identified as the “Flex OBD-II asset tracker,” the “TT600 solar powered asset tracker with Cat-M,” and the “TT603 solar powered asset tracker with Cat-M.” These devices enhance fleet management by collecting, recording and transmitting/receiving location and other data pertaining to vehicles, trailers or containers. All three models feature a cellular modem. The “Flex OBD-II” also features an OBD-II code reader.<sup>2</sup> Although NY N300201 does not specify whether the subject devices feature a GPS component, internet research on these products indicates that they possess a GPS component that collects location data.<sup>3</sup> CBP classified the subject articles in subheading 8517.62.00, HTSUS.
- NY N301862: The articles at issue consist of two externally mounted asset management/tracking devices, identified as the “Falcon GXT5002C” and the “GXT5002.” They are used to track/report various data elements from (generally) a tractor-trailer. They perform remote data collection that provides location information of assets and cargo status. They operate on a battery pack that recharges from an integrated solar panel. The devices feature a LTE network cellular modem. The ruling requester submitted to CBP that the subject devices do not feature a GPS. However, the product installation specifications for the “Falcon GXT5002C” describe the model as follows: “[T]he GXT5002C is a SkyBitz GPS tracking device used to determine the location as well as the loaded status of a trailer. It communicates via cellular technology and has a wireless interface capability for connectivity to other SkyBitz wireless devices.” The product specifications for the “Falcon GXT5002” do not reference a GPS and indicate that it features an accelerometer to collect start/stop data. CBP classified both products under subheading 8517.12.00, HTSUS.

CBP rulings classifying telematics devices in heading 8526, HTSUS:

- NY N201495: The article at issue is a Micro-Electro-Mechanical device, identified as item “CTDOBD1.” The device is designed for installation in a vehicle and contains a cellular modem, GPS, accelerometer, gyroscope, and magnetometer. It transmits the data from the GPS and sensors via a cellular modem to company servers. The device is used to assist in fleet management. Pursuant to Note 3 to Section XVI and Note 3 to Chapter 90, HTS, CBP determined that the subject article was classified under subheading 8526.91.00, HTSUS, on the basis that the GPS imparted the article’s principal function.
- NY N168766: Two articles were classified in this ruling, “GPS Personal Trackers” (referenced item numbers CR-GT80MT, CR-GT30GT, CR-GT30XGT, and CR-GT60GT), and “GPS Vehicle Trackers,” (referenced item numbers CR-GT300VT, CR-GT310VT, and CR-GT400MVT). Only the “GPS Vehicle Trackers” are subject to this reconsideration. The “GPS Vehicle Trackers” are designed for real-time tracking and

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<sup>2</sup> OBD-II is an acronym for On-Board Diagnostic II, the second generation of on-board self-diagnostic equipment that provides access to data from the engine control unit.

<sup>3</sup> <https://flex.com/sketch-to-scale/deliver/tracking-solutions> (site last visited August 2020).

fleet management. An integrated GPS collects location data and the data is transmitted to a specified mobile phone or server base through GPS, GSM, and GPRS capabilities.

Pursuant to Note 3 to Section XVI, HTS, CBP classified the subject article under subheading 8526.91.00, HTSUS, and determined that the principal function of the composite machine was performed by the GPS.

- NY N108330: The articles at issue are identified as the “Wireless Matrix Reporter 101” and the “Wireless Matrix Reporter 112.” These devices track mobile assets such as trucks. The tracking devices mount to a vehicle’s windshield or under the dashboard and are equipped with USB device ports for interface with USB-equipped devices. The “Wireless Matrix Reporter 101” consists of a GPS and cellular modem. The “Wireless Matrix Reporter 112” integrates a transceiver with a GPS receiver. CBP determined that subject articles were composite machines classified under subheading 8526.91.00, HTSUS, in accordance with Note 3 to Section XVI, HTS.
- NY N148555: The subject article is identified as the “TAG-150 GPS/GPRS Tracking Kit.” The device is a tracking unit consisting of a printed circuit board assembly with integrated GPS, GPRS modem, SIM card, Li-Polymer battery and firmware, all housed within a waterproof enclosure. The device is a fleet management tool used to monitor golf carts, utility vehicles and turf equipment by communicating location data to the TAG server through the cellular network. CBP determined that subject article is a composite machine classified under subheading 8526.91.00, HTSUS, in accordance with Note 3 to Section XVI, HTS.

In summary, the articles at issue in the above-referenced rulings are telematics devices, also commonly referred to as telemetry devices or fleet/asset/cargo management devices or trackers. The subject telematics devices measure and/or collect data at remote points and transmit/receive data via integrated cellular modems to the end user. The subject articles are telematics devices specifically used in fleet management applications.

## **LAW AND ANALYSIS:**

Classification under the HTSUS is in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods will be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 will then be applied in order.

GRI 3(a) provides that “the heading which provides the most specific description shall be preferred to headings providing a more general description.” GRI 3(b) states, in pertinent part, that composite goods that cannot be classified by reference to GRI 3(a), are to be classified as if they consisted of the component that gives them their essential character. GRI 3(c) provides that when goods cannot be classified by reference to GRI 3(a) or 3(b), they are to be classified in the heading that occurs last in numerical order among the competing headings that equally merit consideration.

The articles in the rulings identified above feature cellular modems, described by heading 8517, HTSUS, which provides for, inter alia, apparatus for the wireless transmission or reception of data. All of the articles, with the exception of the “GXT5002” model the subject of NY N301862, also feature a GPS component for collecting location data, described by heading 8526, HTSUS. Some of the articles also feature measuring devices such as an OBD-II code reader (the “Flex OBD-II asset tracker” at issue in NY N300201) and accelerometer (NY N201495 and NY N301862), described by heading 9031, HTSUS. Therefore, the following HTSUS headings are under consideration for all the rulings the subject of this reconsideration:

- 8517 Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission apparatus of heading 8443, 8525, 8527 or 8528; parts thereof:
- 8526 Radar apparatus, radio navigational aid apparatus and radio remote control apparatus:

In addition, for NY’s N300210, N201495 and N301862, the following HTSUS heading is also under consideration:

- 9031 Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof:

Note 3 to Section XVI, HTSUS, provides:

Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

Note 3 to Chapter 90 states that the provisions of Note 3 to section XVI also apply to this chapter.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System. While not legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized System and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

The ENs to Note 3 to Section XVI provide:

(VI) MULTI FUNCTION MACHINES  
AND COMPOSITE MACHINES  
(Section Note 3)

In general, multi-function machines are classified according to the principal function of the machine.

Multi-function machines are, for example, machine-tools for working metal using interchangeable tools, which enable them to carry out different machining operations (e.g., milling, boring, lapping).

Where it is not possible to determine the principal function, and where, as provided in Note 3 to the Section, the context does not otherwise require, it is necessary to apply General Interpretative Rule 3 (c); such is the case, for example, in respect of multi function machines potentially classifiable in several of the headings 84.25 to 84.30, in several of the headings 84.58 to 84.63 or in several of the headings 84.70 to 84.72.

The ENs to heading 85.26 state that this heading includes the following:

- (1) Radio navigational aid equipment (e.g., radio beacons and radio buoys, with fixed or rotating aerials; receivers, including radio compasses equipped with multiple aerials or with directional frame aerial). It also includes global positioning system (GPS) receivers.

As explained above, the subject articles are telematics devices used in fleet management applications. Fleet telematics devices function to monitor a variety of vehicle/cargo information (i.e., location, driver behaviour, vehicle activity, engine diagnostics, environmental conditions) and transmit that data in real time to fleet operators to enable them to manage their resources. Fleet telematics devices are designed in various configurations. Simpler devices may feature only a cellular modem and GPS; other devices may include additional integrated components that function to obtain data that is specific to the needs of the end-user. The articles at issue feature key components such as a cellular modem, GPS, code reader, and accelerometer. Data relating to location (GPS), vehicle diagnostics (code reader) and changes in velocity, orientation and driving habits (accelerometer) all provide essential information in the context of fleet management, and the cellular modem transmits that data to end-users in real-time. Each of these components (modem, GPS, code reader, accelerometer) contributes equally to the device's function, i.e., obtaining and transmitting real-time data for fleet management purposes. In this regard, we note that the importance of components that monitor essential data elements is dependent upon that data being able to reach the end user in real time. Similarly, the importance of the modem is negated if there is no data to transmit. Accordingly, we conclude that no single key component of the subject telematics devices imparts the principal function.

As it is not possible to determine which component imparts the principal function to the subject merchandise, classification is determined pursuant to GRI 3(c), which provides that goods are to be classified in the heading that occurs last in numerical order among the competing headings that equally merit consideration. As noted supra, all the subject articles contain a cellular modem described in heading 8517, HTSUS. All of the subject articles, with the exception of the "GXT5002" at issue in NY N301862, also feature a GPS component for collecting location data, described by heading 8526, HTSUS. The "Flex OBD-II asset tracker" at issue in NY N300201 also features an OBD-II code reader, described by heading 9031, HTSUS. The "CTDOBD1" at issue in NY N201495 and the "Falcon GXT5002" at issue in NY

N301862 also feature an accelerometer, described by heading 9031, HTSUS. Accordingly, the articles the subject of this reconsideration are classified as follows:

- NY N304264: The "Telematic Control Units" (item numbers 51986538 and 51986539) feature a cellular modem (heading 8517, HTSUS) and GPS (heading 8526, HTSUS). Pursuant to GRI 3(c), the subject articles are classified in heading 8526, HTSUS, specifically subheading 8526.91.00, HTSUS, which provides for “[R]adar apparatus, radio navigational aid apparatus and radio remote control apparatus: Other: Radio navigational aid apparatus:.”
- NY N213872: The subject telemetry device identified as the “XT6000G” features a cellular modem and GPS. Pursuant to GRI 3(c), the subject article is classified in heading 8526, HTSUS, specifically subheading 8526.91.00, HTSUS.
- NY N108329: The subject articles identified as the “Communicator 500” and “Communicator 1000” feature a cellular modem and GPS. Pursuant to GRI 3(c), the subject articles are classified in heading 8526, HTSUS, specifically subheading 8526.91.00, HTSUS.
- NY N300201: The subject articles are identified as the “Flex OBD-II asset tracker,” the “TT600 solar powered asset tracker with Cat-M,” and the “TT603 solar powered asset tracker with Cat-M.” The “Flex OBD-II asset tracker” features a cellular modem, GPS, and OBD-II code reader. Pursuant to GRI 3(c), the “Flex OBD-II asset tracker” is classified in heading 9031, HTSUS, specifically subheading 9031.80.80, HTSUS, which provides for “[M]easuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof: other instruments, appliances and machines: other.” The “TT600 solar powered asset tracker with Cat-M” and the “TT603 solar powered asset tracker with Cat-M” feature a cellular modem and GPS. Pursuant to GRI 3(c), the “TT600 solar powered asset tracker with Cat-M” and the “TT603 solar powered asset tracker with Cat-M” are classified in heading 8526, HTSUS, specifically subheading 8526.91.00, HTSUS.
- NY N301862: The subject articles are identified as the “Falcon GXT5002C” and the “GXT5002.” The “Falcon GXT5002C” features a cellular modem and GPS. Pursuant to GRI 3(c), the “Falcon GXT5002C” is classified in heading 8526, HTSUS, specifically subheading 8526.91.00, HTSUS. The “Falcon GXT5002” features a cellular modem and an accelerometer. Pursuant to GRI 3(c), the “Falcon GXT5002” is classified in heading 9031, HTSUS, specifically subheading 9031.80.80, HTSUS.
- NY N201495: The “CTDOBD1” features a cellular modem, GPS, accelerometer, gyroscope, and magnetometer. CBP classified the subject article under subheading 8526.91.00, HTSUS, pursuant to Note 3 to Section XVI and Note 3 to Chapter 90, HTS. The subject article is properly classified, pursuant to GRI 3(c), under subheading 9031.80.80, HTSUS.

- NY N168766: Two articles are at issue in this ruling, “GPS Personal Trackers” (referenced items CR-GT80MT, CR-GT30GT, CR-GT30XGT, and CR-GT60GT), and “GPS Vehicle Trackers,” (referenced items CR-GT300VT, CR-GT310VT, and CR-GT400MVT). Only the “GPS Vehicle Trackers” are subject to this reconsideration. The “GPS Vehicle Trackers” feature a cellular modem and GPS. Although CBP correctly classified the subject “GPS Vehicle Trackers” under subheading 8526.91.00, HTSUS, the legal basis for such classification pursuant to Note 3 to Section XVI, HTS, is incorrect. The subject “GPS Vehicle Trackers” are properly classified under subheading 8526.91.00, HTSUS, pursuant to GRI 3(c).
- NY N108330: The subject articles are identified as the “Wireless Matrix Reporter 101” and the “Wireless Matrix Reporter 112.” The devices consist of a cellular modem and GPS. Although CBP correctly classified these articles under subheading 8526.91.00, HTSUS, the legal basis for such classification pursuant to Note 3 to Section XVI, HTS, is incorrect. The subject articles are properly classified under subheading 8526.91.00, HTSUS, pursuant to GRI 3(c).
- NY N148555: The “TAG-150 GPS/GPRS Tracking Kit” features a cellular modem and GPS. Although CBP correctly classified this article under subheading 8526.91.00, HTSUS, we note that the legal basis for such classification pursuant to Note 3 to Section XVI, HTS, is incorrect. The subject article is properly classified under subheading 8526.91.00, HTSUS, pursuant to GRI 3(c).

## **HOLDING:**

By application of GRIs 1, 3(c) and 6, the subject fleet telematics devices at issue in NY N304264, NY N213872, NY N108329, NY N300201 (only the “TT600 solar powered asset tracker with Cat-M” and “TT603 solar powered asset tracker with Cat-M”), N301862 (only the “Falcon GXT5002C”), NY N201495, NY N108330, NY N148555 and NY N168766 (only the “GPS Vehicle Trackers”) are classified under heading 8526, HTSUS, specifically subheading 8526.91.00, HTSUS, which provides for “[R]adar apparatus, radio navigational aid apparatus and radio remote control apparatus: Other: Radio navigational aid apparatus:.” The applicable rate of duty is free.

By application of GRIs 1, 3(c) and 6, the subject fleet telematics devices at issue in NY N201495, NY N300201 (only the “Flex OBD-II asset tracker”), and NY N301862 (only the “Falcon GXT5002”) are classified under heading 9031, HTSUS, specifically subheading 9031.80.80, HTSUS, which provides for “[M]easuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof: other instruments, appliances and machines: other.” The applicable rate of duty is free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov](http://www.usitc.gov).

**EFFECT ON OTHER RULINGS:**

NY N304264, dated May 22, 2019, NY N213872, dated May 16, 2012, NY N108329, dated June 28, 2010, NY N300201, dated September 11, 2018, NY N301862, dated December 11, 2018, NY N201495, dated February 14, 2012, NY N108330, dated June 22, 2010, and NY N148555, dated March 3, 2011, are hereby REVOKED.

NY N168766, dated June 21, 2011, is hereby MODIFIED.

In accordance with 19 U.S.C. 1625(c), this ruling will become effective 60 days after its publication in the Customs Bulletin.

Sincerely,

Craig T. Clark, Director  
Commercial and Trade Facilitation Division

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**U.S. Department of Homeland Security**  
Washington, DC 20229  
U.S. Customs and Border Protection

HQ H312425

December 31, 2020

**OT:RR:CTF:VS** H312425 RMC

**CATEGORY:** Classification

Griselda Valenzuela  
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**RE:** Tariff Classification and USMCA Eligibility of Residential and Commercial Solar Panels

Dear Ms. Valenzuela:

This is in response to your correspondence dated July 1, 2020, in which you request rulings on the tariff classification of SunPower residential and commercial solar panels and on the eligibility of those products for duty-free treatment under the United States-Mexico-Canada Agreement (“USMCA”). Your requests, submitted as electronic ruling requests, were consolidated and forwarded to this office from the National Commodity Specialist Division for response.

**FACTS:**

According to the information provided, the residential units are SunPower model E20-327-C-AC solar panels. The units “include a factory-integrated SunPower microinverter” and “provide a revolutionary combination of high efficiency, with reliability, and module-level DC-to-AC power conversion.” Each finished solar panel will consist of a framed sheet of 96 photovoltaic solar cells, a junction box, and a microinverter. The technical specifications indicate that the nominal power of the residential units is 327 watts with a maximum output of 0.420 kilovolt amperes (“kVA”). You assert that the residential units will be classified under subheading 8501.61.0010, Harmonized Tariff Schedule of the United States (“HTSUS”).

The information provided indicates that the commercial units are SunPower E-Series model E20-435-COM solar panels. Each commercial unit contains a framed sheet of 128 solar cells and a junction box. Unlike the residential units, the commercial units do not include a microinverter to convert the direct current electricity into alternating current. Accordingly, you state that the commercial units are incapable of being connected directly to external devices or a grid. Instead, they are intended to be connected to other solar modules to create a larger panel. The technical specifications indicate that the nominal power of the commercial units is 435 watts with a maximum output of 0.470 kVA. You assert that the commercial units will be classified under subheading 8541.40.6015 HTSUS.

The assembly of both the residential and the commercial units will take place at SunPower's facility in Mexicali or Ensenada, Mexico, using both originating and non-originating components. Your submission includes a schematic of the assembly operations, including descriptions and photographs of all steps, and complete bills of materials including the originating status, tariff classification, and value of all materials used in the production of the residential and commercial units.

The assembly of the residential units in Mexico involves cutting of the encapsulant material, washing and inspection of the anti-reflective glass, assembly of the strings of solar cells, alignment of the strings of solar cells, lamination of the various components to create the solar sheets, trimming of the product, installation of the frame, installation of the junction box, testing of the product, and installation of the microinverter. The assembly of the commercial units in Mexico involves similar steps, except that no microinverter is installed. You assert that both the residential and commercial units will be eligible for preferential tariff treatment under the USMCA.

## **ISSUES:**

Whether the residential solar panels will be properly classified under subheading 8501.61.0010, HTSUS, and the commercial solar panels will be properly classified under subheading 8541.40.6015, HTSUS.

Whether the residential solar panels and the commercial solar panels will be eligible for USMCA preferential tariff treatment when they are imported from Mexico into the United States.

## **LAW AND ANALYSIS:**

### **1. Classification**

Classification of goods under the HTSUS is governed by the General Rules of Interpretation (“GRI”). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

#### **A. Residential Units**

CBP has classified merchandise similar to the SunPower residential units in heading 8501, HTSUS. For example, in New York Ruling (“NY”) N160415, dated May 6, 2011, we considered the classification of a solar panel with an integrated power modulator to convert the direct current produced by the panel into alternating current electricity. We rejected the proposed classification of 8541.40.60, HTSUS, which provided for “Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes: Other diodes: Other; Solar cells: Assembled into modules or made up into panels,” as the merchandise did not consist simply of photovoltaic cells arranged into a solar panel, but rather of a solar panel with a power module attached. Therefore, in its condition as imported, the solar panel was capable of supplying power to an external load, and classification under 8541.40.60, HTSUS, was improper. Instead, we

concluded that the merchandise was properly classified under subheading 8501.61, HTSUS, as “Electric motors and generators...: AC generators: Of an output not exceeding 75 kVA.”

Here, as in NY N160415, the merchandise consists of a solar panel with a power modulator (or “microinverter”) attached. This microinverter allows the unit to convert the direct current electricity generated by the solar panels into alternating current electricity that is capable of supplying power to an external load. The technical specifications of the residential units indicate that the electrical output does not exceed 75 kVA. Accordingly, by operation of GRI 1, the residential units will be properly classified under 8501.61.0010, HTSUS, as “Electric motors and generators...: AC generators: Of an output not exceeding 75 kVA: Photovoltaic generators of a kind described in statistical note 9 to this chapter.”<sup>1</sup>

## B. Commercial Units

CBP has classified merchandise similar to the SunPower commercial units in 8541.40.60, HTSUS. For example, in Headquarters Ruling (“HQ”) H250768, dated December 2, 2016, CBP held that certain solar panels that were designed to be connected to other solar panels were properly classified in subheading 8541.40.60 of the 2013 HTSUS, which provided for “Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels ...: Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up in panels ...: Other diodes.” We noted that “per the [Explanatory Notes], panels or modules without elements that supply the power directly to an external load, are classified in heading 8541, HTSUS, and cannot be classified in heading 8501, HTSUS.” Although the subject merchandise contained a junction box, connectors, and bypass diodes that protected the solar cells from overheating, these features were not elements that supplied power directly to an external load. Therefore, the merchandise was properly classified in subheading 8541.40.60, HTSUS. *See also* NY N047472, dated January 9, 2009 (holding that modules that could only connect to other solar modules to create a single solar panel and could not connect to external devices or an electrical grid were classified in 8541.40.60, HTSUS).

Here, unlike the residential units, the commercial units do not contain a microinverter to convert the direct current electricity generated by the panels into alternating current electricity. Moreover, the technical specifications indicate that the commercial units do not contain any element that allows the panels to supply power to an external load. As noted above, you state that the commercial units are intended to be connected to other solar modules to create a larger solar panel. Therefore, as in HQ H250768, the merchandise will not be classifiable in heading 8501, HTSUS. Instead, we agree that the merchandise will be properly classified by operation of GRI 1 in 8541.40.6015, HTSUS, as “Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including

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<sup>1</sup> Statistical Note 9 to chapter 85, HTSUS, provides that “For the purposes of heading 8501, photovoltaic generators consist of panels of photocells combined with other apparatus, e.g., storage batteries and electronic controls (voltage regulator, inverter, etc.) and panels or modules equipped with elements, however simple (for example, diodes to control the direction of the current), which supply the power directly to, for example, a motor, an electrolyser. In these devices, electricity is produced by means of solar cells which convert solar energy directly into electricity (photovoltaic conversion).”

photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes (LED); mounted piezoelectric crystals; parts thereof: Other diodes . . . Other: Solar Cells: Crystalline silicon photovoltaic cells of a kind described in statistical note 11 to this chapter<sup>2</sup>: Assembled into modules or made up into panels.”

## 2. Eligibility for USMCA Preferential Tariff Treatment

The United States-Mexico-Canada Agreement (“USMCA”) was signed by the Governments of the United States, Mexico, and Canada on November 30, 2018. The USMCA was approved by the U.S. Congress with the enactment on January 29, 2020, of the USMCA Implementation Act, Pub. L. 116-113, 134 Stat. 11, 14 (19 U.S.C. § 4511(a)). General Note (GN) 11 of the HTSUS implements the USMCA. GN 11(b) sets forth the criteria for determining whether a good is an originating good for purposes of the USMCA. GN 11(b) states:

For the purposes of this note, a good imported into the customs territory of the United States from the territory of a USMCA country, as defined in subdivision (l) of this note, is eligible for the preferential tariff treatment provided for in the applicable subheading and quantitative limitations set forth in the tariff schedule as a “good originating in the territory of a USMCA country” only if—

- (i) the good is a good wholly obtained or produced entirely in the territory of one or more USMCA countries;
- (ii) the good is a good produced entirely in the territory of one or more USMCA countries, exclusively from originating materials;
- (iii) the good is a good produced entirely in the territory of one or more USMCA countries using nonoriginating materials, if the good satisfies all applicable requirements set forth in this note (including the provisions of subdivision (o)); or

...

Here, the residential units and the commercial units will be produced in Mexico using originating and non-originating materials. Therefore, the merchandise will not qualify as originating pursuant to GN 11(b)(i) or (ii). We must therefore consider whether the merchandise qualifies as originating pursuant to GN 11(b)(iii).

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<sup>2</sup> Statistical Note 11 to chapter 85, HTSUS, provides that “For the purposes of statistical reporting numbers 8541.40.6015 and 8541.40.6025, the term “crystalline silicon photovoltaic cells” means crystalline silicon photovoltaic cells of a thickness equal to or greater than 20 micrometers, having a p/n junction (or variant thereof) formed by any means, whether or not the cell imported under statistical reporting number 8541.40.6025 (or subassemblies thereof imported under statistical reporting number 8541.40.6015) has undergone other processing, including, but not limited to, cleaning, etching, coating, and/or addition of materials (including, but not limited to, metallization and conductor patterns) to collect and forward the electricity that is generated by the cell. Such cells include photovoltaic cells that contain crystalline silicon in addition to other photovoltaic materials. This includes, but is not limited to, passivated emitter rear contact cells, heterojunction with intrinsic thin-layer cells, and other so-called hybrid cells.”

## **A. Residential Units**

As noted above, the residential units will be classified in heading 8501, HTSUS (and not for use in a motor vehicle). The applicable rule of origin in GN 11(o)/85.1 requires:

- (A) A change to heading 8501 from any other heading, except from tariff items 8503.00.35, 8503.00.45 or 8503.00.65; or
- (B) A change to heading 8501 from tariff items 8503.00.35, 8503.00.45 and 8503.00.65, whether or not there is also a change from any other heading, provided there is a regional value content of not less than:
  - (1) 60 percent where the transaction value method is used; or
  - (2) 50 percent where the net cost method is used.

Here, the bill of materials for the residential units shows that all non-originating materials are classified outside of heading 8501 and no non-originating materials are classified in subheadings 8503.00.35, 8503.00.45 or 8503.00.65. The residential units therefore qualify as USMCA originating goods pursuant to GN 11(o)/85.1(A) and, provided that all other requirements are met, the merchandise will be eligible for preferential tariff treatment under the USMCA when imported into the United States.

## **B. Commercial Units**

As noted above, the commercial units will be classified in 8541.40.6015, HTSUS. The applicable rule of origin in GN 11(o)/85.109 requires “[n]o change in tariff classification to a good of subheadings 8541.10 through 8542.90.”

Here, as no change in tariff classification is required for goods of 8541.40.6015, HTSUS, and the commercial units are assembled in Mexico, the merchandise will qualify as USMCA originating goods pursuant to GN 11(o)/85.109. Provided that all other requirements are met, the merchandise will be eligible for preferential tariff treatment under the USMCA when imported into the United States.

## **HOLDING:**

Based on the information provided, the residential units will be classified in subheading 8501.61.0010, HTSUS, and will be eligible for preferential tariff treatment under the USMCA. The commercial units will be classified in 8541.40.6015, HTSUS, and will be eligible for preferential tariff treatment under the USMCA.

Please note that 19 C.F.R. § 177.9(b)(1) provides that “[e]ach ruling letter is issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect. The application of a ruling letter by a Customs Service field

office to the transaction to which it is purported to relate is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based.”

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



U.S. Department of Homeland Security  
Washington, DC 20229  
U.S. Customs and Border Protection

**HQ H313371**  
**March 30, 2021**

**OT:RR:CTF:VS H313371 RSD**

**CATEGORY:** Origin

Mr. Jinyeok Ha  
LG Electronics, Inc.  
322 Gyeongmyeong-daero Seo-gu  
Incheon 22744  
South Korea

**RE:** Country of Origin of Rotor-Stator Assemblies for Electric Vehicle Motors for purposes of the Applicability of Trade Remedy Duties under Section 301.

Dear Mr. Ha:

This is in response to your request for a binding ruling dated August 14, 2020, on behalf of LG Electronics concerning the application of Section 301 trade remedy duties for your product: a rotor-stator assembly for an electric vehicle motor.

**FACTS:**

You describe the product as a stator-rotor assembly for an electrical vehicle motor. In your email of March 1, 2021, you have indicated that the ruling request was submitted for the purposes of determining whether the products under consideration would be subject to trade remedy duties under Section 301(b) of the Trade Act of 1974 ("Section 301 measures"). You have presented four different assembly scenarios of the stator and rotor assemblies for use in the production of electric vehicle motors. You submitted a bill of materials with diagrams displaying pictures of the components that are used in making the products. Based on this information, the production of the stator-rotor assemblies consists of multiple steps, where subassemblies are created and combined with each other to form other subassemblies, which in turn are all put together to make the stator-rotor. The components used in making the rotor and stator assemblies will come from various countries, as set forth below, and the assemblies will be manufactured in either China, Mexico, or Korea.

**Scenario #1**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
China	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	China	0.2%
		Resolver, Rotor	China	0.4%
	Stator	Core, Rotor	China	15.3%
		Core, Stator	China	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	China	2.9%
		Powder,Varnish	China	2.1%

**Scenario #2**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
Mexico	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	Mexico	0.2%
		Resolver, Rotor	Japan	0.4%
	Stator	Core, Rotor	Korea	15.3%
		Core, Stator	Korea	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	Mexico	2.9%
		Powder,Varnish	USA	2.1%

**Scenario #3**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
Mexico	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	China	0.2%
		Resolver, Rotor	China	0.4%
	Stator	Core, Rotor	China	15.3%
		Core, Stator	China	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	China	2.9%
		Powder,Varnish	China	2.1%

**Scenario #4**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
Korea	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	China	0.2%
		Resolver, Rotor	Japan	0.4%
	Stator	Core, Rotor	Korea	15.3%
		Core, Stator	Korea	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	China	2.9%
		Powder,Varnish	China	2.1%

**ISSUE:**

What is the country of origin of the rotor-stator assemblies for the purposes of the application of the Section 301 trade remedy duties for goods under subheading 9903.88.01, HTSUS in each of the four presented scenarios?

**LAW AND ANALYSIS:**

The United States Trade Representative (“USTR”) has determined that an additional ad valorem duty will be imposed on certain Chinese imports pursuant to USTR’s authority under Section 301(b) of the Trade Act of 1974 (“Section 301 measures”). See Section XXII, Chapter 99, Subchapter III, U.S. Note 20(r), HTSUS. The Section 301 measures apply to products of China enumerated in Section XXII, Chapter 99, Subchapter III, U.S. Note 20(s)(i), HTSUS.

When determining the country of origin for purposes of applying trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character or use, different from that possessed by the article prior to processing. See *Texas Instruments, Inc. v. United States*, 681 F.2d 778 (CCPA 1982). In deciding whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. See *Belcrest Linens v. United States*, 6 CIT 204, 573 F. Supp. 1149 (1983), aff’d, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. Factors which may be relevant in this evaluation may include the nature of the operation (including the number of components assembled), the number of different operations involved, and whether a significant period of time,

skill, detail, and quality control are necessary for the assembly operation. See C.S.D. 80-111, C.S.D. 85-25, C.S.D. 89-110, C.S.D. 89-118, C.S.D. 90-51, and C.S.D. 90-97. If the manufacturing or combining process is a minor one which leaves the identity of the article intact, a substantial transformation has not occurred. See *Uniroyal, Inc. v. United States*, 3 CIT 220, 542 F. Supp. 1026 (1982), aff'd, 702 F.2d 1022 (Fed. Cir. 1983).

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade ("CIT") interpreted the meaning of "substantial transformation" as used in the Trade Agreements Act of 1979 ("TAA") for purposes of government procurement. *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight, under the TAA. All the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the "name, character and use" test in determining whether a substantial transformation had occurred and reviewed various court decisions involving substantial transformation determinations. The court noted, citing *Uniroyal, Inc. v. United States*, that when "the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change." *Energizer* at 1318. In addition, the court noted that "when the end-use was pre-determined at the time of importation, courts have generally not found a change in use." *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, aff'd 989 F.2d 1201 (Fed. Cir. 1993). Furthermore, courts have considered the nature of the assembly, i.e., whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found "[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly." The court also found that the components had a pre-determined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer's imported components did not undergo a change in name, character, or use because of the post-importation assembly of the components into a finished Generation II flashlight. The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights under the government procurement provisions of the TAA.

In New York Ruling Letter (NYRL) N308827, dated January 21, 2020, the country of origin of three electric motors was under consideration. The stator assembly was comprised of the wound stator core and the stator housing. The rotor assembly was

comprised of the laminated stack, aluminum, and the flanges. The wound stator core and rotor lamination stacks were manufactured in China, while the stator housing and flanges were sourced from France. In Hungary, the rotor lamination stack was injected with molten aluminum. In addition, a Hungarian origin shaft was inserted, and the rotor mass was machined and balanced. Once the rotor was fabricated, the motor was constructed, including inserting the stator core into the housing to form a stator assembly; attaching the flanges to the rotor to form a rotor assembly; inserting the rotor assembly into the stator assembly; making electrical connections; testing, painting, and packaging. Regarding the origin of the motors, it was noted that the assembly operations which consisted of placing the rotor and stator assemblies into a housing to produce a functioning electric motor was not a complex operation. Further, the ruling explained that no single subassembly described was dispositive in determining the essence of a fully assembled electric motor because the rotor assembly and the stator assembly merited equal consideration. Accordingly, the country of origin of the motors was Hungary, as the manufacture and assembly included, in part, some of the rotor production in Hungary.

In NYRL N316151 dated December 18, 2020, CBP considered a product known as the Shaded Pole Synchronous AC Motor. The motor consisted of three subassemblies that were identified as the bobbin coil subassembly, the stator subassembly, and the rotor subassembly. As part of the motor production, the stator subassembly was also produced in Mexico by stamping individual laminations from slotted silicon steel sheet, stacking, and pressing the laminations to form a stator stack and a yoke stack. The two lamination stacks were joined together with the bobbin coil subassembly and machine pressed, then annealed copper wire was wrapped around the laminations to form a shaded coil for the stator. Again, because some of the production of the motor included making the stator in Mexico, CBP found that the manufacturing and assembly operations, in sum, resulted in the motor being a product of Mexico. Significantly, the ruling pointed out that the rotor and stator were the dominant components of a finished electric motor.

NRYL N305251 dated August 1, 2019, concerned a product identified as an electric stepper motor. The stator and the rotor were manufactured in one of three countries by stamping the steel slits from coils that were then pressed into a stator and rotor stack. The ruling explained that the stator and rotor imparted the essence of the finished stepper motor. Based on the described assembly operations, the ruling held that the stator and rotor were not substantially changed by the assembly of the remaining motor components, nor were the assembly operations complex enough to transform the stator and rotor into a new article.

In accordance with these cited rulings, it is generally CBP's position that the country of origin of an electric motor will be determined by where the two most essential components of an electric motor, the rotor and the stator, are made. Furthermore, in turn, the country of origin of the stator and rotor will often be based upon the country where the cores of these components are made.

In this case, various components are imported into either China, Mexico, or Korea, depending on the scenario, where they will be assembled into the stator-rotor

assemblies for use in the production of an electric motor. The individual components have a pre-determined end-use and do not undergo a change in their use due to the assembly process to make them into the stator-rotor assemblies. Although in each of the four scenarios presented, there are notable components produced in several different countries, the most essential components of the stator-rotor assemblies will still be the stator cores and the rotor cores. Similarly, based on the information provided, it appears that the assembly may involve more than merely inserting and attaching parts together. We, nevertheless, still find that the production process involved in making the stator-rotor assemblies for the motors will not result in a substantial transformation of the various components and subassemblies. Consequently, the country of origin of the stators-rotor assemblies for use in the electric motors will be determined by where the stator cores and the rotor cores are produced. In this case, we note that for each of the four scenarios presented, both the stator cores and rotor cores will be produced in the same country.

Accordingly, we find that in Scenario 1, for purposes of determining the applicability of 301 trade remedy duties, since both the rotor core and stator core are of Chinese origin, the country of origin of the stator-rotor assembly will be China. In the second scenario, since both the stator core and the rotor core are produced in Korea, the country origin of the stator-rotor assembly will be Korea. In the third scenario, since the rotor core and stator core are produced in China, the country of origin of the stator-rotor assembly will be China. Finally, in the fourth scenario, because the rotor core and the stator core are made in Korea, the country of origin of the stator-rotor assembly will also be Korea.

#### **HOLDING:**

The country of origin of the stator-rotor assemblies that will be used for electric vehicle motors in the four scenarios for purposes of Section 301 trade remedy duties is as follows: 1) for Scenario 1, the country of origin is China; 2) for Scenario 2, the country of origin is Korea; 3) for Scenario 3, the country of origin is China; and 4) for Scenario 4, the country of origin is Korea. Therefore, the section 301 trade remedy duties will be applicable to the stator-rotor assembly in scenarios 1 and scenario 3 and will not be applied to the stator-rotor assemblies in scenarios 2 and 4.

Please note that 19 C.F.R. § 177.9(b)(1) provides that “[e]ach ruling letter is issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect. The application of a ruling letter by a [CBP] field office to the transaction to which it is purported to relate is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based.”

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



U.S. Department of Homeland Security  
Washington, DC 20229  
U.S. Customs and Border Protection

**HQ H313371**  
**March 30, 2021**

**OT:RR:CTF:VS H313371 RSD**

**CATEGORY:** Origin

Mr. Jinyeok Ha  
LG Electronics, Inc.  
322 Gyeongmyeong-daero Seo-gu  
Incheon 22744  
South Korea

**RE:** Country of Origin of Rotor-Stator Assemblies for Electric Vehicle Motors for purposes of the Applicability of Trade Remedy Duties under Section 301.

Dear Mr. Ha:

This is in response to your request for a binding ruling dated August 14, 2020, on behalf of LG Electronics concerning the application of Section 301 trade remedy duties for your product: a rotor-stator assembly for an electric vehicle motor.

**FACTS:**

You describe the product as a stator-rotor assembly for an electrical vehicle motor. In your email of March 1, 2021, you have indicated that the ruling request was submitted for the purposes of determining whether the products under consideration would be subject to trade remedy duties under Section 301(b) of the Trade Act of 1974 ("Section 301 measures"). You have presented four different assembly scenarios of the stator and rotor assemblies for use in the production of electric vehicle motors. You submitted a bill of materials with diagrams displaying pictures of the components that are used in making the products. Based on this information, the production of the stator-rotor assemblies consists of multiple steps, where subassemblies are created and combined with each other to form other subassemblies, which in turn are all put together to make the stator-rotor. The components used in making the rotor and stator assemblies will come from various countries, as set forth below, and the assemblies will be manufactured in either China, Mexico, or Korea.

**Scenario #1**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
China	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	China	0.2%
		Resolver, Rotor	China	0.4%
	Stator	Core, Rotor	China	15.3%
		Core, Stator	China	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	China	2.9%
		Powder,Varnish	China	2.1%

**Scenario #2**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
Mexico	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	Mexico	0.2%
		Resolver, Rotor	Japan	0.4%
	Stator	Core, Rotor	Korea	15.3%
		Core, Stator	Korea	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	Mexico	2.9%
		Powder,Varnish	USA	2.1%

**Scenario #3**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
Mexico	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	China	0.2%
		Resolver, Rotor	China	0.4%
	Stator	Core, Rotor	China	15.3%
		Core, Stator	China	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	China	2.9%
		Powder,Varnish	China	2.1%

**Scenario #4**

Products Manufactured in		Parts		
Manufactured in	Description	Description	Origin	Material Cost(%)
Korea	Rotor	Shaft	Mexico	22.3%
		Magnet,NdFeB	China	22.6%
		Ring_End	China	1.3%
		Guide,Ring	China	0.2%
		Resolver, Rotor	Japan	0.4%
	Stator	Core, Rotor	Korea	15.3%
		Core, Stator	Korea	15.3%
		Magnet Wire	China	15.0%
		Film,Insulation	China	2.6%
		Connector_Ring	China	2.9%
		Powder,Varnish	China	2.1%

**ISSUE:**

What is the country of origin of the rotor-stator assemblies for the purposes of the application of the Section 301 trade remedy duties for goods under subheading 9903.88.01, HTSUS in each of the four presented scenarios?

**LAW AND ANALYSIS:**

The United States Trade Representative (“USTR”) has determined that an additional ad valorem duty will be imposed on certain Chinese imports pursuant to USTR’s authority under Section 301(b) of the Trade Act of 1974 (“Section 301 measures”). See Section XXII, Chapter 99, Subchapter III, U.S. Note 20(r), HTSUS. The Section 301 measures apply to products of China enumerated in Section XXII, Chapter 99, Subchapter III, U.S. Note 20(s)(i), HTSUS.

When determining the country of origin for purposes of applying trade remedies under Section 301, the substantial transformation analysis is applicable. The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character or use, different from that possessed by the article prior to processing. See *Texas Instruments, Inc. v. United States*, 681 F.2d 778 (CCPA 1982). In deciding whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. See *Belcrest Linens v. United States*, 6 CIT 204, 573 F. Supp. 1149 (1983), aff’d, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. Factors which may be relevant in this evaluation may include the nature of the operation (including the number of components assembled), the number of different operations involved, and whether a significant period of time,

skill, detail, and quality control are necessary for the assembly operation. See C.S.D. 80-111, C.S.D. 85-25, C.S.D. 89-110, C.S.D. 89-118, C.S.D. 90-51, and C.S.D. 90-97. If the manufacturing or combining process is a minor one which leaves the identity of the article intact, a substantial transformation has not occurred. See *Uniroyal, Inc. v. United States*, 3 CIT 220, 542 F. Supp. 1026 (1982), aff'd, 702 F.2d 1022 (Fed. Cir. 1983).

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade ("CIT") interpreted the meaning of "substantial transformation" as used in the Trade Agreements Act of 1979 ("TAA") for purposes of government procurement. *Energizer* involved the determination of the country of origin of a flashlight, referred to as the Generation II flashlight, under the TAA. All the components of the Generation II flashlight were of Chinese origin, except for a white LED and a hydrogen getter. The components were imported into the United States where they were assembled into the finished Generation II flashlight.

The court reviewed the "name, character and use" test in determining whether a substantial transformation had occurred and reviewed various court decisions involving substantial transformation determinations. The court noted, citing *Uniroyal, Inc. v. United States*, that when "the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change." *Energizer* at 1318. In addition, the court noted that "when the end-use was pre-determined at the time of importation, courts have generally not found a change in use." *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, aff'd 989 F.2d 1201 (Fed. Cir. 1993). Furthermore, courts have considered the nature of the assembly, i.e., whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

In reaching its decision in *Energizer*, the court expressed the question as one of whether the imported components retained their names after they were assembled into the finished Generation II flashlights. The court found "[t]he constitutive components of the Generation II flashlight do not lose their individual names as a result [of] the post-importation assembly." The court also found that the components had a pre-determined end-use as parts and components of a Generation II flashlight at the time of importation and did not undergo a change in use due to the post-importation assembly process. Finally, the court did not find the assembly process to be sufficiently complex as to constitute a substantial transformation. Thus, the court found that Energizer's imported components did not undergo a change in name, character, or use because of the post-importation assembly of the components into a finished Generation II flashlight. The court determined that China, the source of all but two components, was the correct country of origin of the finished Generation II flashlights under the government procurement provisions of the TAA.

In New York Ruling Letter (NYRL) N308827, dated January 21, 2020, the country of origin of three electric motors was under consideration. The stator assembly was comprised of the wound stator core and the stator housing. The rotor assembly was

comprised of the laminated stack, aluminum, and the flanges. The wound stator core and rotor lamination stacks were manufactured in China, while the stator housing and flanges were sourced from France. In Hungary, the rotor lamination stack was injected with molten aluminum. In addition, a Hungarian origin shaft was inserted, and the rotor mass was machined and balanced. Once the rotor was fabricated, the motor was constructed, including inserting the stator core into the housing to form a stator assembly; attaching the flanges to the rotor to form a rotor assembly; inserting the rotor assembly into the stator assembly; making electrical connections; testing, painting, and packaging. Regarding the origin of the motors, it was noted that the assembly operations which consisted of placing the rotor and stator assemblies into a housing to produce a functioning electric motor was not a complex operation. Further, the ruling explained that no single subassembly described was dispositive in determining the essence of a fully assembled electric motor because the rotor assembly and the stator assembly merited equal consideration. Accordingly, the country of origin of the motors was Hungary, as the manufacture and assembly included, in part, some of the rotor production in Hungary.

In NYRL N316151 dated December 18, 2020, CBP considered a product known as the Shaded Pole Synchronous AC Motor. The motor consisted of three subassemblies that were identified as the bobbin coil subassembly, the stator subassembly, and the rotor subassembly. As part of the motor production, the stator subassembly was also produced in Mexico by stamping individual laminations from slotted silicon steel sheet, stacking, and pressing the laminations to form a stator stack and a yoke stack. The two lamination stacks were joined together with the bobbin coil subassembly and machine pressed, then annealed copper wire was wrapped around the laminations to form a shaded coil for the stator. Again, because some of the production of the motor included making the stator in Mexico, CBP found that the manufacturing and assembly operations, in sum, resulted in the motor being a product of Mexico. Significantly, the ruling pointed out that the rotor and stator were the dominant components of a finished electric motor.

NRYL N305251 dated August 1, 2019, concerned a product identified as an electric stepper motor. The stator and the rotor were manufactured in one of three countries by stamping the steel slits from coils that were then pressed into a stator and rotor stack. The ruling explained that the stator and rotor imparted the essence of the finished stepper motor. Based on the described assembly operations, the ruling held that the stator and rotor were not substantially changed by the assembly of the remaining motor components, nor were the assembly operations complex enough to transform the stator and rotor into a new article.

In accordance with these cited rulings, it is generally CBP's position that the country of origin of an electric motor will be determined by where the two most essential components of an electric motor, the rotor and the stator, are made. Furthermore, in turn, the country of origin of the stator and rotor will often be based upon the country where the cores of these components are made.

In this case, various components are imported into either China, Mexico, or Korea, depending on the scenario, where they will be assembled into the stator-rotor

assemblies for use in the production of an electric motor. The individual components have a pre-determined end-use and do not undergo a change in their use due to the assembly process to make them into the stator-rotor assemblies. Although in each of the four scenarios presented, there are notable components produced in several different countries, the most essential components of the stator-rotor assemblies will still be the stator cores and the rotor cores. Similarly, based on the information provided, it appears that the assembly may involve more than merely inserting and attaching parts together. We, nevertheless, still find that the production process involved in making the stator-rotor assemblies for the motors will not result in a substantial transformation of the various components and subassemblies. Consequently, the country of origin of the stators-rotor assemblies for use in the electric motors will be determined by where the stator cores and the rotor cores are produced. In this case, we note that for each of the four scenarios presented, both the stator cores and rotor cores will be produced in the same country.

Accordingly, we find that in Scenario 1, for purposes of determining the applicability of 301 trade remedy duties, since both the rotor core and stator core are of Chinese origin, the country of origin of the stator-rotor assembly will be China. In the second scenario, since both the stator core and the rotor core are produced in Korea, the country origin of the stator-rotor assembly will be Korea. In the third scenario, since the rotor core and stator core are produced in China, the country of origin of the stator-rotor assembly will be China. Finally, in the fourth scenario, because the rotor core and the stator core are made in Korea, the country of origin of the stator-rotor assembly will also be Korea.

#### **HOLDING:**

The country of origin of the stator-rotor assemblies that will be used for electric vehicle motors in the four scenarios for purposes of Section 301 trade remedy duties is as follows: 1) for Scenario 1, the country of origin is China; 2) for Scenario 2, the country of origin is Korea; 3) for Scenario 3, the country of origin is China; and 4) for Scenario 4, the country of origin is Korea. Therefore, the section 301 trade remedy duties will be applicable to the stator-rotor assembly in scenarios 1 and scenario 3 and will not be applied to the stator-rotor assemblies in scenarios 2 and 4.

Please note that 19 C.F.R. § 177.9(b)(1) provides that “[e]ach ruling letter is issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect. The application of a ruling letter by a [CBP] field office to the transaction to which it is purported to relate is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based.”

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



**U.S. Department of Homeland Security**  
Washington, DC 20229  
U.S. Customs and Border Protection

HQ H314110

January 6, 2021

**OT:RR:CTF:VS** H314110 RMC

**CATEGORY:** Classification

Griselda Valenzuela  
R.L. Jones Customhouse Brokers, Inc.  
1778 Zinetta Rd. Suite A  
Calexico, CA 92231

**RE:** Tariff Classification and USMCA Eligibility of Solar Laminates

Dear Ms. Valenzuela:

This is in response to your correspondence dated July 1, 2020, in which you request a ruling on the tariff classification of a SunPower solar laminate and on the eligibility of that product for preferential tariff treatment under the United States-Mexico-Canada Agreement (“USMCA”). Your request, submitted as an electronic ruling request, was forwarded to this office from the National Commodity Specialist Division for response.

**FACTS:**

According to the information provided, the solar laminate (also referred to as a “solar sheet”) is designated as SunPower part number 527935. The unit is essentially an interconnected array of either 96 or 128 solar cells. Unlike SunPower’s finished solar panels, however, the solar laminate is not mounted onto a frame or connected to a junction box. You state that, in most cases, the unit will be transported through the United States in bond for shipment to Europe, where a junction box and aluminum frame will be added to produce a fully functional solar module. However, you also note that the solar laminate may, in some cases, be entered for consumption in the United States.

You note that the unit in its condition as imported will not contain a microinverter to convert the direct current electricity generated by the solar cells into alternating current. Accordingly, the unit cannot be connected directly to external devices or to a grid. Instead, the unit is eventually intended to be further manufactured into a solar module that will be connected to other solar modules to create a larger panel. The technical specifications provided indicate that the nominal power of the unit is 360 watts with a maximum power of 0.435 kilovolt amperes (“kVA”). You assert that the solar laminate will be classified under subheading 8541.40.6015, Harmonized Tariff Schedule of the United States (“HTSUS”).

The assembly of the solar laminate will take place at a SunPower facility in Mexico using both originating and non-originating materials. Your submission includes a schematic of the assembly operations, including descriptions and photographs of all steps, and complete bills of materials including the originating status, tariff classification, and value of all materials used in the production of the solar laminate.

The assembly of the solar laminate in Mexico involves cutting the encapsulant material, washing and inspection of the anti-reflective glass, assembly of the strings of solar cells, alignment of the strings of solar cells, lamination of the various components to create the solar laminate, and trimming of the product. The unit is then inspected, tested against a sun simulator, cleaned, and palletized for shipment. You assert that the solar laminate will be eligible for USMCA preferential tariff treatment in cases where it is entered for consumption in the United States.

## **ISSUES:**

Whether the solar laminate will be properly classified under subheading 8541.40.6015, HTSUS.

Whether the solar laminate will be eligible for USMCA preferential tariff treatment in cases where it is imported from Mexico into the United States and entered for consumption.

## **LAW AND ANALYSIS:**

### **1. Classification**

Classification of goods under the HTSUS is governed by the General Rules of Interpretation (“GRI”). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

CBP has classified merchandise similar to the SunPower commercial units in subheading 8541.40.60, HTSUS. For example, in Headquarters Ruling (“HQ”) H250768, dated December 2, 2016, CBP held that certain solar panels that were designed to be connected to other solar panels were properly classified in subheading 8541.40.60 of the 2013 HTSUS, which provided for “Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels ....: Photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up in panels ....: Other diodes.” We noted that “per the [Explanatory Notes], panels or modules without elements that supply the power directly to an external load, are classified in heading 8541, HTSUS, and cannot be classified in heading 8501, HTSUS.” Although the subject merchandise contained a junction box, connectors, and bypass diodes that protected the solar cells from overheating, these features were not elements that supplied power directly to an external load. Therefore, the merchandise was properly classified in subheading 8541.40.60, HTSUS. *See also* NY N047472, dated January 9, 2009 (holding that modules that could only connect to other solar modules to create a single solar panel and could not connect to external devices or an electrical grid were classified in 8541.40.60, HTSUS) and HQ H312425, dated December 31, 2020 (holding that SunPower commercial solar panels containing an array of 128

solar cells and junction box, but lacking a microinverter that would allow the panels to supply power to an external load, were classified in 8541.40.6015, HTSUS).

Here, as in the cases cited above, the merchandise is not attached to a microinverter or other device capable of converting direct current electricity into alternating current electricity. Moreover, the technical specifications indicate that the solar laminate does not contain any element that allows it to supply power to an external load. As noted above, you state that the merchandise unit is eventually intended to be connected to other solar modules to create a larger panel. The merchandise therefore will not be classifiable in heading 8501, HTSUS. Instead, we agree that the merchandise will be properly classified by operation of GRI 1 in 8541.40.6015, HTSUS, as “Diodes, transistors and similar semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes (LED); mounted piezoelectric crystals; parts thereof: Other diodes . . . Other: Solar Cells: Crystalline silicon photovoltaic cells of a kind described in statistical note 11 to this chapter<sup>1</sup>: Assembled into modules or made up into panels.”

## 2. Eligibility for USMCA Preferential Tariff Treatment

The United States-Mexico-Canada Agreement (“USMCA”) was signed by the Governments of the United States, Mexico, and Canada on November 30, 2018. The USMCA was approved by the U.S. Congress with the enactment on January 29, 2020, of the USMCA Implementation Act, Pub. L. 116-113, 134 Stat. 11, 14 (19 U.S.C. § 4511(a)). General Note (GN) 11 of the HTSUS implements the USMCA. GN 11(b) sets forth the criteria for determining whether a good is an originating good for purposes of the USMCA. GN 11(b) states:

For the purposes of this note, a good imported into the customs territory of the United States from the territory of a USMCA country, as defined in subdivision (l) of this note, is eligible for the preferential tariff treatment provided for in the applicable subheading and quantitative limitations set forth in the tariff schedule as a “good originating in the territory of a USMCA country” only if—

- (i) the good is a good wholly obtained or produced entirely in the territory of one or more USMCA countries;
- (ii) the good is a good produced entirely in the territory of one or more USMCA countries, exclusively from originating materials;

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<sup>1</sup> Statistical Note 11 to chapter 85, HTSUS, provides that “For the purposes of statistical reporting numbers 8541.40.6015 and 8541.40.6025, the term “crystalline silicon photovoltaic cells” means crystalline silicon photovoltaic cells of a thickness equal to or greater than 20 micrometers, having a p/n junction (or variant thereof) formed by any means, whether or not the cell imported under statistical reporting number 8541.40.6025 (or subassemblies thereof imported under statistical reporting number 8541.40.6015) has undergone other processing, including, but not limited to, cleaning, etching, coating, and/or addition of materials (including, but not limited to, metallization and conductor patterns) to collect and forward the electricity that is generated by the cell. Such cells include photovoltaic cells that contain crystalline silicon in addition to other photovoltaic materials. This includes, but is not limited to, passivated emitter rear contact cells, heterojunction with intrinsic thin-layer cells, and other so-called hybrid cells.”

- (iii) the good is a good produced entirely in the territory of one or more USMCA countries using nonoriginating materials, if the good satisfies all applicable requirements set forth in this note (including the provisions of subdivision (o));  
or

...

Here, the merchandise will be produced in Mexico using originating and non-originating materials. Therefore, the merchandise will not qualify as originating pursuant to GN 11(b)(i) or (ii). We must therefore consider whether the merchandise qualifies as originating pursuant to GN 11(b)(iii).

As noted above, the solar laminate will be classified in 8541.40.6015, HTSUS. The applicable rule of origin in GN 11(o)/85.109 requires “[n]o change in tariff classification to a good of subheadings 8541.10 through 8542.90.”

Here, as no change in tariff classification is required for goods of 8541.40.6015, HTSUS, and the solar laminate will be assembled in Mexico, the merchandise will qualify as USMCA originating goods pursuant to GN 11(o)/85.109. Provided that all other requirements are met, the merchandise will be eligible for preferential tariff treatment under the USMCA when imported into the United States and entered for consumption.

#### **HOLDING:**

Based on the information provided, the solar laminate will be classified in subheading 8541.40.6015, HTSUS, and will be eligible for preferential tariff treatment under the USMCA when imported from Mexico into the United States and entered for consumption

Please note that 19 C.F.R. § 177.9(b)(1) provides that “[e]ach ruling letter is issued on the assumption that all of the information furnished in connection with the ruling request and incorporated in the ruling letter, either directly, by reference, or by implication, is accurate and complete in every material respect. The application of a ruling letter by a Customs Service field office to the transaction to which it is purported to relate is subject to the verification of the facts incorporated in the ruling letter, a comparison of the transaction described therein to the actual transaction, and the satisfaction of any conditions on which the ruling was based.”

A copy of this ruling letter should be attached to the entry documents filed at the time this merchandise is entered. If the documents have been filed without a copy, this ruling should be brought to the attention of the CBP officer handling the transaction.

Sincerely,

Monika R. Brenner, Chief  
Valuation and Special Programs Branch



**HQ H322878**

August 23, 2022

**CLA-2 OT:RR:CTF:EMAIN H322878 EKR**

**CATEGORY:** Classification

**TARIFF NO.:** 8516.79.00

Mr. Troy Crago  
Atico International USA  
501 South Andrews Avenue  
Fort Lauderdale, Florida 33301

**RE:** Revocation of NY B88990, NY R00569, and NY N283857; Tariff classification of hot and cold water dispensers.

Dear Mr. Crago:

This ruling is in reference to New York Ruling Letter (NY) R00569, dated August 6, 2004, regarding the classification of a hot and cold water dispenser under the Harmonized Tariff Schedule of the United States (HTSUS). In NY R00569, U.S. Customs and Border Protection (CBP) classified the subject article in heading 8418, HTSUS, which provides for “Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof.” Upon reconsideration, CBP has determined that NY R00569 is in error. We have also reviewed NY B88990, dated September 22, 1997, and NY N283857, dated March 22, 2017, which classify substantially similar hot and cold water dispensers in heading 8418, HTSUS. As with NY R00569, we have determined that the tariff classification of the subject merchandise in these rulings is incorrect.

Notice of the proposed action was published in the *Customs Bulletin*, Vol. 56, No. 23, on June 15, 2022. Five comments were received in response to that notice. Three commenters expressed general support for the revocation. Another commenter noted that classifying the subject water dispensers in heading 8516, HTSUS, rather than in heading 8418, HTSUS, could have consequences for the application of Section 301 duties. While we acknowledge that this action may indeed affect the applicability of Section 301 duties, we are required to apply the tariff as written, without regard to the presence or absence of Section 301 duties. The final comment is addressed below.

## **FACTS:**

In NY R00569, the subject merchandise is described as a thermoelectric desktop water dispenser, featuring a stainless-steel hot water tank, and a separate thermoelectric chamber for cold water. The unit is further described as having hot and cold switches, a removable drip tray, and a light-emitting diode (LED) indicator light. The water dispenser is compatible with a three or five gallon water bottle, which fits into the top of the unit.

In NY B88990, CBP described the “Dual Quick Water Dispenser” as a drinking water dispenser, providing cold water or hot water for coffee, tea or soup. The unit is further described as having a compression type refrigeration system and a band heater for hot water.

In NY N283857, the merchandise is described as water coolers, dispensing hot and cold water. Two models are designed to connect directly to a water supply, while four additional models rely on a water bottle. Cold water is produced by a reciprocating compressor, with coils mounted on the back of the unit to receive refrigerant circulated by the compressor.

## **ISSUE:**

Whether water dispensers that both chill and heat water are properly classified in heading 8418, HTSUS, which provides for “Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof” or in heading 8516, HTSUS, which provides for “Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric flatirons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545; parts thereof.”

## **LAW AND ANALYSIS:**

Classification under the HTSUS is in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods will be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 will then be applied in order. GRI 2(b) states that “the classification of goods consisting of more than one material or substance shall be according to the principles of rule 3.”

GRI 3(a) provides that “the heading which provides the most specific description shall be preferred to headings providing a more general description.” GRI 3(b) states, in pertinent part, that composite goods that cannot be classified by reference to GRI 3(a), are to be classified as if they consisted of the component that gives them their essential character. GRI 3(c) provides that when goods cannot be classified by reference to GRI 3(a) or 3(b), they are to be classified in the heading that occurs last in numerical order among the competing headings that equally merit consideration.

The following provisions of the HTSUS are under consideration:

- 8418** Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof:  
\* \* \*
- 8516** Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric flatirons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545; parts thereof:

Section XVI, Note 3 states that:

Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

All three of the water dispensers under consideration are designed to dispense hot and cold water. In other words, they perform two complementary functions: a refrigeration function designed to chill water, and a heating function designed to heat water. They are composite machines, covered by Note 3 to Section XVI. In assessing whether the devices have a principal function, we note that although the three dispensers are configured differently (e.g., differing uses of tanks and different types of refrigeration or heating technology), the heating and cooling of water is accomplished in parallel. Likewise, there is no indication that either the refrigerating or the heating equipment housed within the subject dispensers is more robust or effective. As such, we conclude that neither the refrigeration function nor the heating function constitutes the “principal” function of the water dispenser.<sup>1</sup>

The Explanatory Notes<sup>2</sup> to Note 3 to Section XVI provide:

(VI) MULTI FUNCTION MACHINES  
AND COMPOSITE MACHINES  
(Section Note 3)

In general, multi-function machines are classified according to the principal function of the machine.

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<sup>1</sup> One commenter, agreeing that the water dispenser is a composite machine pursuant to Note 3 to Section XVI, argues that the principal function of the machine is the tap or valve controlling the flow of water. As a result, the commenter asserts that the water dispenser is properly classified in heading 8481, HTSUS. We disagree. The tap and any valves comprising the inner piping of the water dispensers are merely components incorporated into the goods.

<sup>2</sup> The Explanatory Notes (ENs) to the Harmonized Commodity Description and Coding System represent the official interpretation of the tariff at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS and are generally indicative of the proper interpretation of these headings. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989).

Multi-function machines are, for example, machine-tools for working metal using interchangeable tools, which enable them to carry out different machining operations (e.g., milling, boring, lapping).

Where it is not possible to determine the principal function, and where, as provided in Note 3 to the Section, the context does not otherwise require, it is necessary to apply General Interpretative Rule 3 (c); such is the case, for example, in respect of multi function machines potentially classifiable in several of the headings 84.25 to 84.30, in several of the headings 84.58 to 84.63 or in several of the headings 84.70 to 84.72.

Turning, then, to GRI 3, it is clear that neither heading provides a more specific description of the merchandise: both headings describe only part of the water dispenser. Neither the refrigeration component, nor the heating component gives the water dispenser its essential character. Thus, the goods cannot be classified pursuant to GRI 3(a) or GRI 3(b). The hot and cold water dispensers are therefore classified pursuant to GRI 3(c), in the heading occurring last in numerical order among those which equally merit consideration, heading 8516, HTSUS, in this instance.

One commenter asserted that the water dispenser should be classified in heading 8479, HTSUS, pursuant to Note 8 to Chapter 84. Note 8 to Chapter 84 provides: “Subject to note 2 to this chapter and note 3 to section XVI, a machine the principal purpose of which is not described in any heading or for which no one purpose is the principal purpose is, unless the context otherwise requires, to be classified in heading 8479.” Note 8 to Chapter 84 applies to headings of Chapter 84, and is “[s]ubject... to note 3 to section XVI.” Because we are considering headings both Chapter 84 and Chapter 85, and because the water dispensers are composite machines of Note 3 to Section XVI, Note 8 to Chapter 84 is not applicable in this instance.

## **HOLDING:**

By application of GRIs 1, 3(c) and 6, the water dispensers at issue in NY R00569, NY B88990, and NY N 283857 are classified in heading 8516, HTSUS, and are specifically provided for under subheading 8516.79.00, HTSUS, which provides for “Electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric flatirons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545; parts thereof: Other electrothermic appliances: Other.” The general, column one rate of duty for merchandise of subheading 8516.79.00, HTSUS, is 2.7% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the internet at [www.usitc.gov/tata/hts/](http://www.usitc.gov/tata/hts/).

## **EFFECT ON OTHER RULINGS:**

NY R00569, dated August 6, 2004, NY B88990, dated September 22, 1997, and NY N283857, dated March 22, 2017 are hereby REVOKED in accordance with the above analysis.

In accordance with 19 U.S.C. 1625(c), this ruling will become effective 60 days after its publication in the Customs Bulletin.

Sincerely,

Yuliya A. Gulis, Acting Director  
Commercial and Trade Facilitation Division



**HQ H327997**

**April 10, 2023**

**OT:RR:CTF:VS H327997 AMW**

**CATEGORY:** Origin

Gene W. Rosen, Esq.  
Gene Rosen Law Group  
200 Garden City Plaza, Suite 405  
Garden City, NY 11530

**RE:** U.S. Government Procurement; Title III, Trade Agreements Act of 1979 (19 U.S.C. 2511); Subpart B, Part 177, CBP Regulations; Security Lab Inc.; Country of Origin of Video Surveillance and Data Management System; Substantial Transformation

Dear Mr. Rosen:

This is in response to your request of September 21, 2022, on behalf of your client, Security Lab Inc. (“Security Lab”), for a final determination concerning the country of origin of a video management and surveillance system pursuant to Title III of the Trade Agreements Act of 1979 (“TAA”), as amended (19 U.S.C. 2511 *et seq.*), and subpart B of Part 177, U.S. Customs and Border Protection (“CBP”) Regulations (19 CFR 177.21, *et seq.*). Security Lab is a party-at-interest within the meaning of 19 CFR 177.22(d)(1) and 177.23(a) and is therefore entitled to request this final determination.

**FACTS:**

Security Lab produces a product described as the “video management and surveillance system” (“VMS”). As outlined in your request, the VMS is a hardware system consisting of a camera array and central computer system designed to conduct and manage video surveillance operations that “is capable of handling up to 64 cameras per server simultaneously and can be used to power hundreds of servers within a single, centrally administered system....”

The VMS comprises foreign-origin components that are assembled in the United States to create hardware that is then combined with U.S.-origin software, including the Security Lab Application Software and Microsoft Windows. The hardware components consist of the following items:

- Chassis (product of Taiwan)
- Partially completed motherboard (product of China)

- Central processing unit (“CPU”) (product of Costa Rica, Vietnam, or Malaysia)
- Hard disk drive (“HDD”) (product of Singapore or Thailand)
- Optical drive (product of China)
- Memory modules (product of China)
- Graphics cards (product of China)
- Alarm boards (product of China)
- Serial attached technology attachment (“SATA Controller”) (product of Taiwan)
- Redundant array independent disk controller (“RAID controller”) (product of Singapore)
- Power supply unit (“PSU”) (product of China),
- Computer fans (product of China)
- Network interface card (“NIC”) (product of Taiwan)
- Network camera (product of Taiwan, the Republic of Korea, or China)
- Computer keyboard (product of China), and
- Computer mouse (product of China).

In addition, you state that the remaining “minor” components (*e.g.*, cables, brackets, bezels, screws, and straps) will be sourced from a variety of countries. Your request indicates that, as explained in further detail below, the items will be assembled into a “computer” unit (*i.e.*, the “system assembly”), which is housed in the chassis, and contains the motherboard, CPU, HDD, memory modules, graphics cards, alarm boards, SATA controller, RAID controller, PSU, fans, and NIC. The computer unit will control the operation of the network cameras, and will be operated by a user utilizing the keyboard and mouse. Of the countries of origin provided for each component, Taiwan, Singapore, Costa Rica, and the Republic of Korea are each TAA-designated countries while Vietnam, Malaysia, and China are not.

The VMS manufacturing process consists of the following five phases: (1) order management; (2) hardware manufacturing; (3) application software, operating system and systems installation, configuration and management; (4) quality control and assurance; and (5) order and system closeout and final checks. In greater detail, these steps occur as follows:

- **Order Management:** After receiving a customer order, Security Lab employees issue a work order for the quantity of VMSs to be assembled, identifying the model number and requirements for the items to be manufactured. Security Lab employees then identify the bill of materials necessary.
- **Hardware Manufacturing:** This phase involves the assembly of the VMS hardware, subassemblies, and components. The process involves the use of an electric screwdriver, hot glue, harness connections, and tie strips. The assembly process involves up to 30 steps and occurs over the course of 60-90 minutes.
- **Application Software, Operating System and Systems Installation, Configuration and Management:** During this phase, Security Lab programmers, developers, testers, and hardware engineers design, develop and code the relevant version of the Security Lab Application Software to configure each system on a build-to-order basis. The software is integrated, installed, and configured into the completed hardware via an 18-step process occurring over the course of 60-90 minutes.

- **Quality Control and Assurance:** This phase involves a Security Lab employee conducting a 14-step quality control check and testing process of each VMS, including testing video and audio performance and network functionality. This phase occurs over the course of approximately 60 minutes.
- **Order and System Closeout/Final Checks:** This phase involves a six-step, 15-minute closeout process in which photographs of the complete VMS are taken and a tamper seal is placed along the VMS chassis.

According to your submission, the Security Lab Application Software is designed and coded in the United States by Security Lab programmers on a C, C++ framework. The software includes the following capabilities: real-time audio, video, and data recording, viewing, listening, playback, storage, information management, situational awareness, and security device control. The Security Lab Application Software functions by receiving “communication” and “interoperability” instructions from the hardware’s firmware and application program interfaces (“APIs”). You state that, in this case, the firmware is programming that is written to the hardware device’s memory and that an API is a “software intermediary that allows two applications to ‘talk’ to each other.”

## **ISSUE:**

Whether the imported components are substantially transformed when made into the subject VMS in the United States.

## **LAW AND ANALYSIS:**

CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purpose of granting waivers of certain “Buy American” restrictions in U.S. law or practice for products offered for sale to the U.S. Government, pursuant to subpart B of Part 177, 19 CFR 177.21 *et seq.*, which implements Title III, Trade Agreements Act of 1979, as amended (19 U.S.C. 2511-2518).

CBP’s authority to issue advisory rulings and final determinations is set forth in 19 U.S.C. 2515(b)(1), which states:

For the purposes of this subchapter, the Secretary of the Treasury shall provide for the prompt issuance of advisory rulings and final determinations on whether, under section 2518(4)(B) of this title, **an article is or would be a product of a foreign country or instrumentality designated pursuant to section 2511(b) of this title.**

Emphasis added.

The Secretary of the Treasury’s authority mentioned above, along with other customs revenue functions, are delegated to CBP in the Appendix to 19 CFR Part 0 - Treasury Department Order No. 100-16, 68 Fed. Reg. 28, 322 (May 23, 2003).

The rule of origin set forth in 19 U.S.C. 2518(4)(B) states:

An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

*See also* 19 CFR 177.22(a).

In rendering advisory rulings and final determinations for purposes of U.S. Government procurement, CBP applies the provisions of subpart B of Part 177 consistent with the Federal Acquisition Regulation (“FAR”). *See* 19 CFR 177.21. In this regard, CBP recognizes that the FAR restricts the U.S. Government’s purchase of products to U.S.-made or designated country end products for acquisitions subject to the TAA. *See* 48 CFR 25.403(c)(1).

The FAR, 48 CFR 25.003, defines “U.S.-made end product” as:

. . . an article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.

Section 25.003 defines “designated country end product” as:

a WTO GPA [World Trade Organization Government Procurement Agreement] country end product, an FTA [Free Trade Agreement] country end product, a least developed country end product, or a Caribbean Basin country end product.

Section 25.003 defines “WTO GPA country end product” as an article that:

- (1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
- (2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

Once again, we note that the VMS is assembled in the United States with components sourced from a variety of TAA-designated countries (*i.e.*, Taiwan, Singapore, Costa Rica, and

the Republic of Korea) as well as several non-TAA countries (*i.e.*, China, Vietnam, and Malaysia).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

A new and different article of commerce is an article that has undergone a change in commercial designation or identity, fundamental character, or commercial use. A determinative issue is the extent of the operations performed and whether the materials lose their identity and become an integral part of the new article. *See Nat'l Hand Tool Corp. v. United States*, 16 CIT 308 (1992), *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993). "For courts to find a change in character, there often needs to be a substantial alteration in the characteristics of the article or components." *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308, 1318 (Ct. Int'l Trade 2016) (citations omitted).

In instances in which component production or assembly occurs in multiple countries and no single country's operations dominate the manufacturing operations, CBP has looked to the location at which final assembly occurs. In CBP Headquarters Ruling ("HQ") H170315, dated July 28, 2011, CBP was asked to determine the country of origin for an imported satellite telephone that contained Malaysian-origin circuit boards and U.K.-origin software and that underwent final assembly and programming in Singapore. In that matter, CBP noted, there existed "three countries under consideration where programming and/or assembly operations take place, the last of which is Singapore." Although the Malaysian-origin boards and U.K.-origin software were important to the function of the device, CBP determined Singapore to be the proper country of origin because it had been the site of the last substantial transformation. Similarly, in HQ H203555, dated April 23, 2012, CBP considered the country of origin of oscilloscopes containing Malaysian-origin circuit boards assembled in Singapore and programmed with U.S.-origin software. Once again, CBP observed that no one country's operations dominated the manufacturing process, but that the final assembly in Singapore completed the oscilloscopes and, therefore, the last substantial transformation occurred in that country.

In the present matter, you argue that the country of origin of the VMS is the United States because you believe that the last substantial transformation occurs in the United States. You state that hardware assembly and the installation of the U.S.-origin software into the U.S.-assembled system assembly results in a new article with a name, character, and use different from the original hardware components.

Here, a plurality of components is sourced from China, although a combined majority is sourced from Taiwan, Singapore, Costa Rica, Vietnam, Malaysia, and Thailand, and elsewhere. Importantly, the major components do not originate from one country, but are instead sourced from a variety of countries: the CPU will originate from either Costa Rica, Vietnam or Malaysia, the partial motherboard from China, and the cameras from either Taiwan, Korea, or China. The assembly in the United States, meanwhile, fully integrates the subassemblies and various component parts into the complete VMS, at which point the U.S.-origin software is installed. No single country's operations dominate the manufacturing operations of the VMS. The CPU manufactured in Costa Rica, Vietnam or Malaysia is important to the function of the VMS, as is the Chinese-origin motherboard and U.S.-origin firmware and software. The assembly in the United States completes the VMS. This matter is therefore analogous to our determination in HQ H203555, dated April 23, 2012, in which we determined Singapore to be the country of origin for oscilloscope where "there are three countries under consideration where programming and/or assembly operations take place, the last of which is Singapore" but "[n]o one country's operations dominate[d] the manufacturing operations." *See also*, HQ H170315, dated July 28, 2011, scenario III.

Based on the foregoing, we find that the last substantial transformation occurs in the United States, and therefore, the VMS is not a product of a foreign country or instrumentality which is not designated pursuant to section 2511(b) of this title (i.e., China, Vietnam, and Malaysia). As to whether the VMS assembled in the United States qualifies as a "U.S.-made end product," you may wish to consult with the relevant government procuring agency and review *Acetris Health, LLC v. United States*, 949 F.3d 719 (Fed. Cir. 2020).

## **HOLDING:**

Based on the information outlined above, we determine that the components imported into the United States undergo a substantial transformation when made into the subject video management system by Security Lab.

Notice of this final determination will be given in the *Federal Register*, as required by 19 CFR 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 CFR 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 CFR 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the U.S. Court of International Trade.

Sincerely,

Alice A. Kipel, Executive Director  
Regulations and Rulings  
Office of Trade



**HQ H327997**

**April 10, 2023**

**OT:RR:CTF:VS H327997 AMW**

**CATEGORY:** Origin

Gene W. Rosen, Esq.  
Gene Rosen Law Group  
200 Garden City Plaza, Suite 405  
Garden City, NY 11530

**RE:** U.S. Government Procurement; Title III, Trade Agreements Act of 1979 (19 U.S.C. 2511); Subpart B, Part 177, CBP Regulations; Security Lab Inc.; Country of Origin of Video Surveillance and Data Management System; Substantial Transformation

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**FACTS:**

Security Lab produces a product described as the “video management and surveillance system” (“VMS”). As outlined in your request, the VMS is a hardware system consisting of a camera array and central computer system designed to conduct and manage video surveillance operations that “is capable of handling up to 64 cameras per server simultaneously and can be used to power hundreds of servers within a single, centrally administered system....”

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- Computer fans (product of China)
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- Network camera (product of Taiwan, the Republic of Korea, or China)
- Computer keyboard (product of China), and
- Computer mouse (product of China).

In addition, you state that the remaining “minor” components (*e.g.*, cables, brackets, bezels, screws, and straps) will be sourced from a variety of countries. Your request indicates that, as explained in further detail below, the items will be assembled into a “computer” unit (*i.e.*, the “system assembly”), which is housed in the chassis, and contains the motherboard, CPU, HDD, memory modules, graphics cards, alarm boards, SATA controller, RAID controller, PSU, fans, and NIC. The computer unit will control the operation of the network cameras, and will be operated by a user utilizing the keyboard and mouse. Of the countries of origin provided for each component, Taiwan, Singapore, Costa Rica, and the Republic of Korea are each TAA-designated countries while Vietnam, Malaysia, and China are not.

The VMS manufacturing process consists of the following five phases: (1) order management; (2) hardware manufacturing; (3) application software, operating system and systems installation, configuration and management; (4) quality control and assurance; and (5) order and system closeout and final checks. In greater detail, these steps occur as follows:

- **Order Management:** After receiving a customer order, Security Lab employees issue a work order for the quantity of VMSs to be assembled, identifying the model number and requirements for the items to be manufactured. Security Lab employees then identify the bill of materials necessary.
- **Hardware Manufacturing:** This phase involves the assembly of the VMS hardware, subassemblies, and components. The process involves the use of an electric screwdriver, hot glue, harness connections, and tie strips. The assembly process involves up to 30 steps and occurs over the course of 60-90 minutes.
- **Application Software, Operating System and Systems Installation, Configuration and Management:** During this phase, Security Lab programmers, developers, testers, and hardware engineers design, develop and code the relevant version of the Security Lab Application Software to configure each system on a build-to-order basis. The software is integrated, installed, and configured into the completed hardware via an 18-step process occurring over the course of 60-90 minutes.

- **Quality Control and Assurance:** This phase involves a Security Lab employee conducting a 14-step quality control check and testing process of each VMS, including testing video and audio performance and network functionality. This phase occurs over the course of approximately 60 minutes.
- **Order and System Closeout/Final Checks:** This phase involves a six-step, 15-minute closeout process in which photographs of the complete VMS are taken and a tamper seal is placed along the VMS chassis.

According to your submission, the Security Lab Application Software is designed and coded in the United States by Security Lab programmers on a C, C++ framework. The software includes the following capabilities: real-time audio, video, and data recording, viewing, listening, playback, storage, information management, situational awareness, and security device control. The Security Lab Application Software functions by receiving “communication” and “interoperability” instructions from the hardware’s firmware and application program interfaces (“APIs”). You state that, in this case, the firmware is programming that is written to the hardware device’s memory and that an API is a “software intermediary that allows two applications to ‘talk’ to each other.”

## **ISSUE:**

Whether the imported components are substantially transformed when made into the subject VMS in the United States.

## **LAW AND ANALYSIS:**

CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purpose of granting waivers of certain “Buy American” restrictions in U.S. law or practice for products offered for sale to the U.S. Government, pursuant to subpart B of Part 177, 19 CFR 177.21 *et seq.*, which implements Title III, Trade Agreements Act of 1979, as amended (19 U.S.C. 2511-2518).

CBP’s authority to issue advisory rulings and final determinations is set forth in 19 U.S.C. 2515(b)(1), which states:

For the purposes of this subchapter, the Secretary of the Treasury shall provide for the prompt issuance of advisory rulings and final determinations on whether, under section 2518(4)(B) of this title, **an article is or would be a product of a foreign country or instrumentality designated pursuant to section 2511(b) of this title.**

Emphasis added.

The Secretary of the Treasury’s authority mentioned above, along with other customs revenue functions, are delegated to CBP in the Appendix to 19 CFR Part 0 - Treasury Department Order No. 100-16, 68 Fed. Reg. 28, 322 (May 23, 2003).

The rule of origin set forth in 19 U.S.C. 2518(4)(B) states:

An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

*See also* 19 CFR 177.22(a).

In rendering advisory rulings and final determinations for purposes of U.S. Government procurement, CBP applies the provisions of subpart B of Part 177 consistent with the Federal Acquisition Regulation (“FAR”). *See* 19 CFR 177.21. In this regard, CBP recognizes that the FAR restricts the U.S. Government’s purchase of products to U.S.-made or designated country end products for acquisitions subject to the TAA. *See* 48 CFR 25.403(c)(1).

The FAR, 48 CFR 25.003, defines “U.S.-made end product” as:

. . . an article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.

Section 25.003 defines “designated country end product” as:

a WTO GPA [World Trade Organization Government Procurement Agreement] country end product, an FTA [Free Trade Agreement] country end product, a least developed country end product, or a Caribbean Basin country end product.

Section 25.003 defines “WTO GPA country end product” as an article that:

- (1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
- (2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

Once again, we note that the VMS is assembled in the United States with components sourced from a variety of TAA-designated countries (*i.e.*, Taiwan, Singapore, Costa Rica, and

the Republic of Korea) as well as several non-TAA countries (*i.e.*, China, Vietnam, and Malaysia).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

A new and different article of commerce is an article that has undergone a change in commercial designation or identity, fundamental character, or commercial use. A determinative issue is the extent of the operations performed and whether the materials lose their identity and become an integral part of the new article. *See Nat'l Hand Tool Corp. v. United States*, 16 CIT 308 (1992), *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993). "For courts to find a change in character, there often needs to be a substantial alteration in the characteristics of the article or components." *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308, 1318 (Ct. Int'l Trade 2016) (citations omitted).

In instances in which component production or assembly occurs in multiple countries and no single country's operations dominate the manufacturing operations, CBP has looked to the location at which final assembly occurs. In CBP Headquarters Ruling ("HQ") H170315, dated July 28, 2011, CBP was asked to determine the country of origin for an imported satellite telephone that contained Malaysian-origin circuit boards and U.K.-origin software and that underwent final assembly and programming in Singapore. In that matter, CBP noted, there existed "three countries under consideration where programming and/or assembly operations take place, the last of which is Singapore." Although the Malaysian-origin boards and U.K.-origin software were important to the function of the device, CBP determined Singapore to be the proper country of origin because it had been the site of the last substantial transformation. Similarly, in HQ H203555, dated April 23, 2012, CBP considered the country of origin of oscilloscopes containing Malaysian-origin circuit boards assembled in Singapore and programmed with U.S.-origin software. Once again, CBP observed that no one country's operations dominated the manufacturing process, but that the final assembly in Singapore completed the oscilloscopes and, therefore, the last substantial transformation occurred in that country.

In the present matter, you argue that the country of origin of the VMS is the United States because you believe that the last substantial transformation occurs in the United States. You state that hardware assembly and the installation of the U.S.-origin software into the U.S.-assembled system assembly results in a new article with a name, character, and use different from the original hardware components.

Here, a plurality of components is sourced from China, although a combined majority is sourced from Taiwan, Singapore, Costa Rica, Vietnam, Malaysia, and Thailand, and elsewhere. Importantly, the major components do not originate from one country, but are instead sourced from a variety of countries: the CPU will originate from either Costa Rica, Vietnam or Malaysia, the partial motherboard from China, and the cameras from either Taiwan, Korea, or China. The assembly in the United States, meanwhile, fully integrates the subassemblies and various component parts into the complete VMS, at which point the U.S.-origin software is installed. No single country's operations dominate the manufacturing operations of the VMS. The CPU manufactured in Costa Rica, Vietnam or Malaysia is important to the function of the VMS, as is the Chinese-origin motherboard and U.S.-origin firmware and software. The assembly in the United States completes the VMS. This matter is therefore analogous to our determination in HQ H203555, dated April 23, 2012, in which we determined Singapore to be the country of origin for oscilloscope where "there are three countries under consideration where programming and/or assembly operations take place, the last of which is Singapore" but "[n]o one country's operations dominate[d] the manufacturing operations." *See also*, HQ H170315, dated July 28, 2011, scenario III.

Based on the foregoing, we find that the last substantial transformation occurs in the United States, and therefore, the VMS is not a product of a foreign country or instrumentality which is not designated pursuant to section 2511(b) of this title (i.e., China, Vietnam, and Malaysia). As to whether the VMS assembled in the United States qualifies as a "U.S.-made end product," you may wish to consult with the relevant government procuring agency and review *Acetris Health, LLC v. United States*, 949 F.3d 719 (Fed. Cir. 2020).

## **HOLDING:**

Based on the information outlined above, we determine that the components imported into the United States undergo a substantial transformation when made into the subject video management system by Security Lab.

Notice of this final determination will be given in the *Federal Register*, as required by 19 CFR 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 CFR 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 CFR 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the U.S. Court of International Trade.

Sincerely,

Alice A. Kipel, Executive Director  
Regulations and Rulings  
Office of Trade



**HQ H327997**

**April 10, 2023**

**OT:RR:CTF:VS H327997 AMW**

**CATEGORY:** Origin

Gene W. Rosen, Esq.  
Gene Rosen Law Group  
200 Garden City Plaza, Suite 405  
Garden City, NY 11530

**RE:** U.S. Government Procurement; Title III, Trade Agreements Act of 1979 (19 U.S.C. 2511); Subpart B, Part 177, CBP Regulations; Security Lab Inc.; Country of Origin of Video Surveillance and Data Management System; Substantial Transformation

Dear Mr. Rosen:

This is in response to your request of September 21, 2022, on behalf of your client, Security Lab Inc. (“Security Lab”), for a final determination concerning the country of origin of a video management and surveillance system pursuant to Title III of the Trade Agreements Act of 1979 (“TAA”), as amended (19 U.S.C. 2511 *et seq.*), and subpart B of Part 177, U.S. Customs and Border Protection (“CBP”) Regulations (19 CFR 177.21, *et seq.*). Security Lab is a party-at-interest within the meaning of 19 CFR 177.22(d)(1) and 177.23(a) and is therefore entitled to request this final determination.

**FACTS:**

Security Lab produces a product described as the “video management and surveillance system” (“VMS”). As outlined in your request, the VMS is a hardware system consisting of a camera array and central computer system designed to conduct and manage video surveillance operations that “is capable of handling up to 64 cameras per server simultaneously and can be used to power hundreds of servers within a single, centrally administered system....”

The VMS comprises foreign-origin components that are assembled in the United States to create hardware that is then combined with U.S.-origin software, including the Security Lab Application Software and Microsoft Windows. The hardware components consist of the following items:

- Chassis (product of Taiwan)
- Partially completed motherboard (product of China)

- Central processing unit (“CPU”) (product of Costa Rica, Vietnam, or Malaysia)
- Hard disk drive (“HDD”) (product of Singapore or Thailand)
- Optical drive (product of China)
- Memory modules (product of China)
- Graphics cards (product of China)
- Alarm boards (product of China)
- Serial attached technology attachment (“SATA Controller”) (product of Taiwan)
- Redundant array independent disk controller (“RAID controller”) (product of Singapore)
- Power supply unit (“PSU”) (product of China),
- Computer fans (product of China)
- Network interface card (“NIC”) (product of Taiwan)
- Network camera (product of Taiwan, the Republic of Korea, or China)
- Computer keyboard (product of China), and
- Computer mouse (product of China).

In addition, you state that the remaining “minor” components (*e.g.*, cables, brackets, bezels, screws, and straps) will be sourced from a variety of countries. Your request indicates that, as explained in further detail below, the items will be assembled into a “computer” unit (*i.e.*, the “system assembly”), which is housed in the chassis, and contains the motherboard, CPU, HDD, memory modules, graphics cards, alarm boards, SATA controller, RAID controller, PSU, fans, and NIC. The computer unit will control the operation of the network cameras, and will be operated by a user utilizing the keyboard and mouse. Of the countries of origin provided for each component, Taiwan, Singapore, Costa Rica, and the Republic of Korea are each TAA-designated countries while Vietnam, Malaysia, and China are not.

The VMS manufacturing process consists of the following five phases: (1) order management; (2) hardware manufacturing; (3) application software, operating system and systems installation, configuration and management; (4) quality control and assurance; and (5) order and system closeout and final checks. In greater detail, these steps occur as follows:

- **Order Management:** After receiving a customer order, Security Lab employees issue a work order for the quantity of VMSs to be assembled, identifying the model number and requirements for the items to be manufactured. Security Lab employees then identify the bill of materials necessary.
- **Hardware Manufacturing:** This phase involves the assembly of the VMS hardware, subassemblies, and components. The process involves the use of an electric screwdriver, hot glue, harness connections, and tie strips. The assembly process involves up to 30 steps and occurs over the course of 60-90 minutes.
- **Application Software, Operating System and Systems Installation, Configuration and Management:** During this phase, Security Lab programmers, developers, testers, and hardware engineers design, develop and code the relevant version of the Security Lab Application Software to configure each system on a build-to-order basis. The software is integrated, installed, and configured into the completed hardware via an 18-step process occurring over the course of 60-90 minutes.

- **Quality Control and Assurance:** This phase involves a Security Lab employee conducting a 14-step quality control check and testing process of each VMS, including testing video and audio performance and network functionality. This phase occurs over the course of approximately 60 minutes.
- **Order and System Closeout/Final Checks:** This phase involves a six-step, 15-minute closeout process in which photographs of the complete VMS are taken and a tamper seal is placed along the VMS chassis.

According to your submission, the Security Lab Application Software is designed and coded in the United States by Security Lab programmers on a C, C++ framework. The software includes the following capabilities: real-time audio, video, and data recording, viewing, listening, playback, storage, information management, situational awareness, and security device control. The Security Lab Application Software functions by receiving “communication” and “interoperability” instructions from the hardware’s firmware and application program interfaces (“APIs”). You state that, in this case, the firmware is programming that is written to the hardware device’s memory and that an API is a “software intermediary that allows two applications to ‘talk’ to each other.”

## **ISSUE:**

Whether the imported components are substantially transformed when made into the subject VMS in the United States.

## **LAW AND ANALYSIS:**

CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purpose of granting waivers of certain “Buy American” restrictions in U.S. law or practice for products offered for sale to the U.S. Government, pursuant to subpart B of Part 177, 19 CFR 177.21 *et seq.*, which implements Title III, Trade Agreements Act of 1979, as amended (19 U.S.C. 2511-2518).

CBP’s authority to issue advisory rulings and final determinations is set forth in 19 U.S.C. 2515(b)(1), which states:

For the purposes of this subchapter, the Secretary of the Treasury shall provide for the prompt issuance of advisory rulings and final determinations on whether, under section 2518(4)(B) of this title, **an article is or would be a product of a foreign country or instrumentality designated pursuant to section 2511(b) of this title.**

Emphasis added.

The Secretary of the Treasury’s authority mentioned above, along with other customs revenue functions, are delegated to CBP in the Appendix to 19 CFR Part 0 - Treasury Department Order No. 100-16, 68 Fed. Reg. 28, 322 (May 23, 2003).

The rule of origin set forth in 19 U.S.C. 2518(4)(B) states:

An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

*See also* 19 CFR 177.22(a).

In rendering advisory rulings and final determinations for purposes of U.S. Government procurement, CBP applies the provisions of subpart B of Part 177 consistent with the Federal Acquisition Regulation (“FAR”). *See* 19 CFR 177.21. In this regard, CBP recognizes that the FAR restricts the U.S. Government’s purchase of products to U.S.-made or designated country end products for acquisitions subject to the TAA. *See* 48 CFR 25.403(c)(1).

The FAR, 48 CFR 25.003, defines “U.S.-made end product” as:

. . . an article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.

Section 25.003 defines “designated country end product” as:

a WTO GPA [World Trade Organization Government Procurement Agreement] country end product, an FTA [Free Trade Agreement] country end product, a least developed country end product, or a Caribbean Basin country end product.

Section 25.003 defines “WTO GPA country end product” as an article that:

- (1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
- (2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

Once again, we note that the VMS is assembled in the United States with components sourced from a variety of TAA-designated countries (*i.e.*, Taiwan, Singapore, Costa Rica, and

the Republic of Korea) as well as several non-TAA countries (*i.e.*, China, Vietnam, and Malaysia).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

A new and different article of commerce is an article that has undergone a change in commercial designation or identity, fundamental character, or commercial use. A determinative issue is the extent of the operations performed and whether the materials lose their identity and become an integral part of the new article. *See Nat'l Hand Tool Corp. v. United States*, 16 CIT 308 (1992), *aff'd*, 989 F.2d 1201 (Fed. Cir. 1993). "For courts to find a change in character, there often needs to be a substantial alteration in the characteristics of the article or components." *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308, 1318 (Ct. Int'l Trade 2016) (citations omitted).

In instances in which component production or assembly occurs in multiple countries and no single country's operations dominate the manufacturing operations, CBP has looked to the location at which final assembly occurs. In CBP Headquarters Ruling ("HQ") H170315, dated July 28, 2011, CBP was asked to determine the country of origin for an imported satellite telephone that contained Malaysian-origin circuit boards and U.K.-origin software and that underwent final assembly and programming in Singapore. In that matter, CBP noted, there existed "three countries under consideration where programming and/or assembly operations take place, the last of which is Singapore." Although the Malaysian-origin boards and U.K.-origin software were important to the function of the device, CBP determined Singapore to be the proper country of origin because it had been the site of the last substantial transformation. Similarly, in HQ H203555, dated April 23, 2012, CBP considered the country of origin of oscilloscopes containing Malaysian-origin circuit boards assembled in Singapore and programmed with U.S.-origin software. Once again, CBP observed that no one country's operations dominated the manufacturing process, but that the final assembly in Singapore completed the oscilloscopes and, therefore, the last substantial transformation occurred in that country.

In the present matter, you argue that the country of origin of the VMS is the United States because you believe that the last substantial transformation occurs in the United States. You state that hardware assembly and the installation of the U.S.-origin software into the U.S.-assembled system assembly results in a new article with a name, character, and use different from the original hardware components.

Here, a plurality of components is sourced from China, although a combined majority is sourced from Taiwan, Singapore, Costa Rica, Vietnam, Malaysia, and Thailand, and elsewhere. Importantly, the major components do not originate from one country, but are instead sourced from a variety of countries: the CPU will originate from either Costa Rica, Vietnam or Malaysia, the partial motherboard from China, and the cameras from either Taiwan, Korea, or China. The assembly in the United States, meanwhile, fully integrates the subassemblies and various component parts into the complete VMS, at which point the U.S.-origin software is installed. No single country's operations dominate the manufacturing operations of the VMS. The CPU manufactured in Costa Rica, Vietnam or Malaysia is important to the function of the VMS, as is the Chinese-origin motherboard and U.S.-origin firmware and software. The assembly in the United States completes the VMS. This matter is therefore analogous to our determination in HQ H203555, dated April 23, 2012, in which we determined Singapore to be the country of origin for oscilloscope where "there are three countries under consideration where programming and/or assembly operations take place, the last of which is Singapore" but "[n]o one country's operations dominate[d] the manufacturing operations." *See also*, HQ H170315, dated July 28, 2011, scenario III.

Based on the foregoing, we find that the last substantial transformation occurs in the United States, and therefore, the VMS is not a product of a foreign country or instrumentality which is not designated pursuant to section 2511(b) of this title (i.e., China, Vietnam, and Malaysia). As to whether the VMS assembled in the United States qualifies as a "U.S.-made end product," you may wish to consult with the relevant government procuring agency and review *Acetris Health, LLC v. United States*, 949 F.3d 719 (Fed. Cir. 2020).

## **HOLDING:**

Based on the information outlined above, we determine that the components imported into the United States undergo a substantial transformation when made into the subject video management system by Security Lab.

Notice of this final determination will be given in the *Federal Register*, as required by 19 CFR 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 CFR 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 CFR 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the U.S. Court of International Trade.

Sincerely,

Alice A. Kipel, Executive Director  
Regulations and Rulings  
Office of Trade

N272147

January 29, 2016

CLA-2-85:OT:RR:NC:N4:108

CATEGORY: Classification

TARIFF NO.: 8528.59.2500

Mr. Scott Chamberlain  
Gentex Corporation  
600 N. Centennial  
Zeeland, MI 49464

RE: The tariff classification of a LCD Rear Vision Mirror Monitor

Dear Mr. Chamberlain:

In your letter dated January 13, 2016, you requested a tariff classification ruling.

The merchandise under consideration is referred to as the “Advent LCDM40 LCD Rear Vision Mirror Monitor.” The LCDM40 is a combination of a TFT LCD color video monitor and motor vehicle rear view glass mirror. This merchandise contains a 4-inch high resolution monitor that can display a clear picture from a reversing camera or any other video source. The video monitor is activated when the vehicle is in reverse.

In your submission, you suggested classification under subheading 7009.10.0000, Harmonized Tariff Schedule of the United States (HTSUS), as “rear-view mirrors for vehicles;” however, the essential character of this merchandise is not imparted by the mirror. Therefore, classification of the LCD Rear Vision Mirror Monitor in subheading 7009.10.0000, HTSUS, is not applicable.

The applicable subheading for the LCD Rear Vision Mirror Monitor will be 8528.59.2500, HTSUS, which provides for Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus: Other monitors: Other: Color: With a flat panel screen: Other: With a video display diagonal not exceeding 34.29 cm. The rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <http://www.usitc.gov/tata/hts/>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Lisa Cariello at lisa.a.cariello@cbp.dhs.gov.

Sincerely,

Deborah C. Marinucci  
Acting Director  
National Commodity Specialist Division

N273912

April 13, 2016

CLA-2-85:OT:RR:NC:N4:120

CATEGORY: Classification

TARIFF NO.: 8537.10.9070

Derik Fausett  
Key Tronic Corporation  
4424 N. Sullivan Rd.  
Spokane Valley, WA 99216

RE: The tariff classification of the SmartPower Outlet from Mexico

Dear Mr. Fausett:

In your letter dated March 14, 2016 you requested a tariff classification ruling.

The merchandise under consideration is referred to as the SmartPower Outlet, which consists of a single three prong Type G electrical plug and a corresponding Type G adapter. Internally, the SmartPower Outlet contains two printed circuit board assemblies which allow it to wirelessly connect to a control hub utilizing the Zigbee communication protocol. On the exterior of the SmartPower Outlet is a pushbutton switch that, when depressed, allows for the device to initiate the connection to its controller. A corresponding light emitting diode displays the connection status once the outlet has established communication. The SmartPower Outlet measures 2.13" by 2.13" by 2.68" and is rated at 9 amps.

In use, the SmartPower Outlet is connected to a electrical outlet and wirelessly communicates with a Zigbee compatible controller. Once communication is established, a device or appliance is plugged in to the SmartPower Outlet and a user with the appropriate software application installed on a smart phone, tablet computer, or similar device has the ability to control the electrical power applied to the connected appliance. We would note that the SmartPower Outlet consists of two pushbutton switches, a relay, a fuse, and the metal contacts necessary to affix the plug into an electrical outlet and receive a plug into its adapter.

The applicable subheading for the SmartPower Outlet will be 8537.10.9070, Harmonized Tariff Schedule of the United States (HTSUS), which provides for; "Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of 8535 or 8536, for electric control or the distribution of electricity...: For a voltage not exceeding 1,000 V: Other: Other: Other." The general rate of duty will be 2.7 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <http://www.usitc.gov/tata/hts/>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Deborah C. Marinucci  
Acting Director  
National Commodity Specialist Division

N275119

May 3, 2016

CLA-2-85:OT:RR:NC:N4:120

CATEGORY: Classification

TARIFF NO.: 8501.10.6060

Lora Mayo-Brown  
Robert Bosch LLC  
8101 Dorchester Road  
North Charleston, SC 29418

RE: The tariff classification of a Drive Wiper Assembly from Mexico

Dear Ms. Mayo-Brown:

In your letter dated April 7, 2016 you requested a tariff classification ruling.

The merchandise under consideration, which you refer to as the Drive Wiper Assembly, consists of an electric motor, mounting brackets and supports, and the wiper linkage mechanism. The electric motor is described as a DC motor which is rated at 20 W. The linkage mechanism is comprised of the push rods and gearing and is attached to the motor at the time of importation. You state that the Drive Wiper Assembly is not imported with wiper arms or blades and is intended to be used in a typical windshield wiper system for a motor vehicle by transforming the rotational motion of the motor to oscillatory motion for the wipers.

The applicable subheading for the Drive Wiper Assembly will be 8501.10.6060, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Electric motors....: Motors of an output not exceeding 37.5 W: Of 18.65 W or more but not exceeding 37.5 W: DC: Other. The general rate of duty will be 2.8%.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <http://www.usitc.gov/tata/hts/>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Deborah C. Marinucci  
Acting Director  
National Commodity Specialist Division

N275130

May 10, 2016

CLA-2-85:OT:RR:NC:N4:120

CATEGORY: Classification

TARIFF NO.: 8537.10.9060

Ms. Lora Mayo-Brown  
Robert Bosch LLC  
8101 Dorchester Road  
N. Charleston, S.C. 29418

RE: The tariff classification of a control unit assembly from an unspecified country.

Dear Ms. Mayo-Brown:

In your letter dated April 7, 2016, you requested a tariff classification ruling.

The merchandise under consideration is referred to as an Engine Control Unit (ECU). The ECU is described as a programmable electronic device whose primary purpose is to control the operation of an internal combustion engine. Secondary purposes may include control of an automatic transmission or an exhaust gas after-treatment system. You state that the ECU consists of one or more of the following: printed circuit board assemblies; connectors; microcontrollers; integrated circuits; and memory devices. The individual components that comprise the ECU are assembled to form a single control module and are mounted within an enclosure.

The ECU is at the center of the Engine Management System (EMS) and functions in conjunction with numerous sensors and actuators located on or around the engine. It receives and interprets numerous electrical input signals either directly from the sensors or from digital communication with other electronic modules, and calculates the actual and desired values of certain engine output variables such as engine on/off status, engine generated torque, and fuel distribution. Once the actual and desired output values are determined, it generates multiple control signals which energize the actuators accordingly, either directly by way of the fuel injectors, for example, or through digital communication by sending an “on-off” command.

You suggest classification of the ECU in subheading 8537.10.9070, or alternatively in subheading 9032.89, Harmonized Tariff Schedule of the United States (HTSUS), the latter of which provides for other automatic regulating and controlling instruments and apparatus. However, based upon the information provided, this unit clearly has functionality beyond those products intended to be classified in heading 9032, HTSUS. Since the subject ECU is not simply “maintaining a measured factor at a pre-determined value, stabilized against disturbances, by

constantly or periodically measuring its actual value," it is precluded from classification in this subheading.

In understanding the language of the HTSUS, the Explanatory Notes of the Harmonized Commodity Description and Coding System ("ENs"), which constitute the official interpretation of the Harmonized System at the international level, may be utilized. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading, and are generally indicative of the proper interpretation of the HTSUSA (See T.D. 89-80, 54 Fed. Reg. 35127 (August 23, 1989)). EN 85.37 explains, in relevant part: "This heading also covers: (3) "Programmable controllers" which are digital apparatus using a programmable memory for the storage of instructions for implementing specific functions such as logic, sequencing, timing, counting and arithmetic, to control, through digital or analog input/output modules, various types of machines."

We would note that the ECU receives data from multiple sensors and modules and electrically controls various functions of the engine based upon the programmed instructions contained in the ECU memory. After receiving this data, the ECU processes the information and controls the operation of other devices, such as the fuel injectors. In doing so, we find that the subject merchandise meets the terms of a programmable controller as described in the ENs. As such, we agree with your suggested classification of 8537.10.9070 to the eighth digit only.

The applicable subheading for the engine control unit will be 8537.10.9060, HTSUS, which provides for "Boards, panels, consoles, ... and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, ... : For a voltage not exceeding 1,000 V: Other: Other: Programmable controllers." The general rate of duty will be 2.7 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <http://www.usitc.gov/tata/hts/>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Deborah C. Marinucci  
Acting Director  
National Commodity Specialist Division

N281443

December 19, 2016

CLA-2-85:OT:RR:NC:N4:120

CATEGORY: Classification

TARIFF NO.: 8537.10.9160

Johanna Jongkind  
Hach Company  
5600 Lindbergh Avenue  
Fort Collins, CO 80538

RE: The tariff classification of a universal controller from China

Dear Ms. Jongkind:

In your letter dated November 11, 2016 you requested a tariff classification ruling.

The merchandise under consideration is referred to as the SC200 Universal Controller (SC200 Controller). The SC200 Controller is described as a 7" x 7" plastic enclosure containing a processing unit, relays, contacts, terminal blocks, and slots for sensor and communication modules. On the front face of the enclosure is a liquid crystal display (LCD) and user interface switches where certain control and programming functions can be performed. The intended purpose of the SC200 Controller is to be connected to water quality sensors via cable and to monitor and collect sensor data and perform electrical control functions based on the data received. You have requested a classification ruling covering only the SC200 Controller as imported separately from any sensor peripherals.

You suggest classification of the SC200 Controller in subheading 8531.20, Harmonized Tariff Schedule of the United States (HTSUS), which provides for Electric sound or visual signaling apparatus....: Indicator panels incorporating LCD's or light emitting diodes (LED's). We disagree with the suggested classification because this merchandise is used to control apparatus and instruments, causing any signaling or indicating function to be subsidiary to the overall utility of the device.

Alternatively, you suggest classification of the SC200 Controller in subheading 9027.90, HTSUS, which provides for, inter alia, parts and accessories of instruments and apparatus for physical or chemical analysis. Note 2(a) to Chapter 90 states that parts and accessories which are goods included in any of the headings of chapter 84, 85, 91, or elsewhere in 90 are in all cases to be classified in their respective headings (excluding three exceptions that don't apply in this instance). As the SC200 Controller, when imported by itself, is classified in a heading of

Chapter 85, it would be excluded from classification in heading 9027 in accordance with Note 2(a).

The SC200 Controller is said to be the intermediary interface between the sensors and a Supervisory Control and Data Acquisition (SCADA) system. In this configuration, data received from the sensors is processed by the SC200 Controller and a status condition is transmitted to the SCADA monitoring devices where an action is performed based on the analysis. However, in configurations where the SC200 Controller is not connected to SCADA devices, the SC200 Controller may directly control the operation of electrical devices through its output relays, such as electrically operated valves or electric motors. This functionality, along with the specifications detailed above, accurately describes a programmable controller as provided for in heading 8537, HTSUS.

The applicable subheading for the SC200 Controller will be 8537.10.9160, HTSUS, which provides for: "Boards, panels, consoles, ... and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, ... : For a voltage not exceeding 1,000 V: Other: Other: Programmable controllers." The rate of duty will be 2.7 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N283857

March 22, 2017

CLA-2-84:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8418.69.0120, 8418.69.0180

Mr. Michael G. Hodes  
Hodes, Keating & Pilon, Attorneys at Law  
134 North Lasalle Street, Suite 1300  
Chicago, IL 60602

RE: The tariff classification of water coolers.

Dear Mr. Hodes:

In your letter dated February 16, 2017 you requested a tariff classification ruling on behalf of your client, Elkay Manufacturing Company.

The merchandise is described as water coolers. Models DSPOUWCF1 and DSPOUWCF5G are imported with connections that directly connect to a water supply. Water bottles are the water source for models DSBWCT1, DSBWCT5G, DSBWCB1 and DSBWCB5G. Hot and cold water is dispensed from each cooler by depressing the appropriate push button water control. Cold water is produced by a reciprocating compressor that chills water. The condenser coils mounted on the back of the unit receive refrigerant circulated by the compressor.

The applicable subheading for the water coolers, models DSBWCT1, DSBWCT5G, DSBWCB1 and DSBWCB5G will be 8418.69.0120, which provides for drinking water coolers, self-contained. The rate of duty is free.

The applicable subheading for the water coolers, models DSPOUWCF1 and DSPOUWCF5G will be 8418.69.0180, Harmonized Tariff Schedule of the United States (HTSUS), which provides for other refrigerating or freezing equipment. The rate of duty is Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N288408

August 16, 2017

CLA-2-85:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8507.60.0020

Richard S. Brown  
Globe Express Services  
8025 Arrow Ridge Blvd.  
Charlotte, NC 28273

RE: The tariff classification of charging kits from China.

Dear Mr. Brown:

In your letter dated July 20, 2017 on behalf of Ubio Labs you requested a tariff classification ruling. The items in both kits are packaged together and ready for retail sale.

The Iridium Power Bank with High Speed Charging Station, item PBB102, consists of a power bank and a charging dock. The charging dock has a magnetic connector and acts as a cradle for the included power bank. The dock charges the power bank and at the base of the dock are three built in USB ports that allow for various electronic devices to be connected to the dock. The portable power bank is rectangular in shape and consists of a rechargeable lithium-ion battery that stores and provides energy to electronic devices.

The 6,000 mAh Slim Power Bank Mobile Charging Kit, item PBB121, consists of two power banks, two 5V/2.4A wall chargers, and two micro USB cables. The USB cables are braided and each measure 3 feet in length. The wall chargers have foldable wall prongs and have two built in USB ports that charge the power banks and other electronic devices. The portable power banks are rechargeable lithium-ion batteries that store and provide energy to electronic devices.

Classification of merchandise under the Harmonized Tariff Schedule of the United States (HTSUS) is governed by the General Rules of Interpretation (GRIs). GRI 1 provides that classification is determined first in accordance with the terms of the headings of the tariff and any relative section or chapter notes.

Ruling HQ H249299, dated July 13, 2015, explains that HTSUS Heading 8507 provides for battery packs, whether or not they include any ancillary components which contribute to the accumulator's function of storing and supplying energy, such as with the subject charging kits. Therefore, in accordance with GRI 1, the applicable subheading for the charging kits, items PBB102 and PBB121, will be 8507.60.0020, HTSUS, which provides for Electric storage batteries, including separators

therefore, whether or not rectangular (including square); parts thereof: Lithium-ion batteries; Other. The general rate of duty will be 3.4 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N288408

August 16, 2017

CLA-2-85:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8507.60.0020

Richard S. Brown  
Globe Express Services  
8025 Arrow Ridge Blvd.  
Charlotte, NC 28273

RE: The tariff classification of charging kits from China.

Dear Mr. Brown:

In your letter dated July 20, 2017 on behalf of Ubio Labs you requested a tariff classification ruling. The items in both kits are packaged together and ready for retail sale.

The Iridium Power Bank with High Speed Charging Station, item PBB102, consists of a power bank and a charging dock. The charging dock has a magnetic connector and acts as a cradle for the included power bank. The dock charges the power bank and at the base of the dock are three built in USB ports that allow for various electronic devices to be connected to the dock. The portable power bank is rectangular in shape and consists of a rechargeable lithium-ion battery that stores and provides energy to electronic devices.

The 6,000 mAh Slim Power Bank Mobile Charging Kit, item PBB121, consists of two power banks, two 5V/2.4A wall chargers, and two micro USB cables. The USB cables are braided and each measure 3 feet in length. The wall chargers have foldable wall prongs and have two built in USB ports that charge the power banks and other electronic devices. The portable power banks are rechargeable lithium-ion batteries that store and provide energy to electronic devices.

Classification of merchandise under the Harmonized Tariff Schedule of the United States (HTSUS) is governed by the General Rules of Interpretation (GRIs). GRI 1 provides that classification is determined first in accordance with the terms of the headings of the tariff and any relative section or chapter notes.

Ruling HQ H249299, dated July 13, 2015, explains that HTSUS Heading 8507 provides for battery packs, whether or not they include any ancillary components which contribute to the accumulator's function of storing and supplying energy, such as with the subject charging kits. Therefore, in accordance with GRI 1, the applicable subheading for the charging kits, items PBB102 and PBB121, will be 8507.60.0020, HTSUS, which provides for Electric storage batteries, including separators

therefore, whether or not rectangular (including square); parts thereof: Lithium-ion batteries; Other. The general rate of duty will be 3.4 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N289089

August 31, 2017

CLA-2-64:OT:RR:NC:N2:447

CATEGORY: Classification

TARIFF NO.: 6403.99.6090; 6403.99.9071

Mr. Robert Grubba  
Broadway Limited Imports, LLC  
9 East Tower Circle  
Ormond Beach, FL 32210

RE: The tariff classification of footwear from China

Dear Mr. Grubba:

In your electronic letter dated August 10, 2017, you requested a tariff classification ruling. Photographs of children's footwear were submitted as part of a laboratory report. Style "Choo Choo Shoe" are children's, closed toe/closed heel, below-the-ankle shoes. These electronic, battery operated, novelty shoes are designed to resemble a train. Each contains a speaker and a circuit board enabling a sound to be emitted when wearer activated. Each shoe is secured to the foot with sewn-in elastic over a tongue, covered by upper material having hook and loop closures on either side of the vamp. The external surface area of the uppers is predominantly leather. The outer soles consist of rubber or plastics. In email correspondence you state you will be importing the Choo Choo Shoes in both boys and girls sizes, and the value is over \$2.50 per pair.

The applicable subheading for the footwear identified as style "Choo Choo Shoe" for boys will be 6403.99.6090, Harmonized Tariff Schedule of the United States (HTSUS), which provides for footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather: other footwear: other: other: other: other: for men, youths and boys: other: other: other. The rate of duty will be 8.5 percent ad valorem.

The applicable subheading for the "Choo Choo Shoe" for girls will be 6403.99.9071, HTSUS, which provides for footwear with outer soles of rubber/plastics, leather or composition leather and uppers of leather: other footwear: other: other: other: other: for other persons valued over \$2.50/pair: other: other. The rate of duty will be 10 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the above, contact National Import Specialist Stacey Kalkines at [stacey.kalkines@cbp.dhs.gov](mailto:stacey.kalkines@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N289369

September 13, 2017

CLA-2-73:OT:RR:NC:N1:121

CATEGORY: Classification

TARIFF NO.: 7318.15.8066; 7318.15.8069; 7326.90.8688; 8409.99.9190; 8505.11.0030

Ms. Lauren Benway  
Trans-Border Global Freight Systems  
2103 Route 9  
Round Lake, NY 12151

RE: The tariff classification of fasteners, a gasket, a drain plug and a magnet from Taiwan

Dear Ms. Benway:

In your letter dated August 9, 2017, you requested a tariff classification ruling on behalf of Marli Manufacturing. The submitted samples will be retained by this office.

The products under consideration are five articles used in the automobile industry.

Product number 44-06 is a hex head cap screw made of medium carbon steel. It has a fully threaded shank and a washer face. Although specific dimensions have not been provided, measurement with a caliper determines the shank to exceed 6 mm in diameter. You indicate that it has general applications throughout the vehicle.

Product number 85-68, described as an “exhaust manifold bolt,” is an indented hex flange shoulder bolt, M8 x 1.25, made of medium carbon steel that serves to mount the catalytic convertor to the exhaust system. Specifically, it fastens the exhaust pipes to the exhaust headers. You indicate that the bolt is used in conjunction with a spring (not included) and a nut (not included) to allow flex and protect the converter from the shock of the road.

Consideration was given to classifying product numbers 44-06 and 85-68 as bolts in subheading 7318.15.2065, Harmonized Tariff Schedule of the United States (HTSUS), as you proposed. However, after consulting ANSI/ASME Standard B18.2.1 and reviewing the features of these fasteners in relation to the criteria, product numbers 44-06 and 85-68 are determined to be screws, greater than 6 mm in diameter.

The applicable subheading for product number 44-06 (hex head cap screw) will be 7318.15.8066, HTSUS, which provides for screws, bolts, nuts, coach screws, screw hooks, rivets, cotters, cotter pins, washers (including spring washers) and similar articles, of iron or steel: threaded articles: other screws and bolts, whether or not with their nuts or washers: other: having shanks or threads

with a diameter of 6 mm or more: other: other: with hexagonal heads: other: cap screws. The duty rate will be 8.5% ad valorem.

The applicable subheading for product number 85-68 (exhaust manifold bolt) will be 7318.15.8069, HTSUS, which provides for screws, bolts, nuts, coach screws, screw hooks, rivets, cotters, cotter pins, washers (including spring washers) and similar articles, of iron or steel: threaded articles: other screws and bolts, whether or not with their nuts or washers: other: having shanks or threads with a diameter of 6 mm or more: other: other: with hexagonal heads: other: other. The duty rate will be 8.5% ad valorem.

Product number 74-08 is an oil drain plug gasket made of metal and rubber. It works with an oil drain plug (not included) to seal the oil pan.

You propose classification of the metal/rubber oil drain plug gasket in subheading 4016.93.1050, HTSUS, which provides for other articles of vulcanized rubber other than hard rubber: other: gaskets, washers, and other seals: of a kind used in the automotive goods of chapter 87: other. However, based on the sample and the information provided, the rubber content is minimal in relation to the metal and does not impart the essential character to this product.

The applicable subheading for product number 74-08 (oil drain plug gasket) will be 7326.90.8688, HTSUS, which provides for other articles of iron or steel, other, other, other, other, other. The rate of duty will be 2.9 percent ad valorem.

Product number 80-39 is an oil drain plug, which serves as a plug for the oil pan within an automotive engine. It is installed either by hand or with a 3/8 drive into mating grooves that lock the plug into place in the pan. The main function the plug is to seal the oil pan of the engine, and to facilitate the draining and the changing of the engine oil. It consists of 96.43 % polyamide body and 3.57% rubber washer. You state in your request that part 80-39 can be used either with spark ignited or diesel engines.

You suggested classification of the oil drain plug in subheading 8708.99.6890, HTSUS. This office disagrees. It is a long-standing classification principle that “a part of [a] particular part is more specifically provided for as a part of the part than as a part of the whole.” C.F. Liebert v. United States, 287 F. Supp. 1009 (1968). The plug under review is an internal component of the engine within a vehicle. Therefore, the plug is more immediately a part of the engine than a part of an entire vehicle.

The applicable subheading for part number 80-39 (oil drain plug) will be 8409.99.9190, HTSUS, which provides for parts suitable for use solely or principally with the engines of heading 8407 or 8408: other: other: other: for vehicles of subheading 8701.20, or heading 8702, 8703 or 8704: other.” The general rate of duty will be 2.5%.

Part number MA-3010 disk magnet is a ceramic (ferrite) magnet primarily composed of iron oxide.

The applicable subheading for part number MA-3010 (disk magnet) will be 8505.11.0030, HTSUS, which provides for permanent magnets and articles intended to become permanent magnets after

magnetization: of metal: ceramic. The general rate of duty will be 2.1 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Barbara Kaiser at [barbara.kaiser@cbp.dhs.gov](mailto:barbara.kaiser@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N290319

October 18, 2017

CLA-2-85:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8505.11.0030

Ms. Joy Pan  
Officemate International Corporation  
90 Newfield Avenue  
Edison, New Jersey 08837

RE: The tariff classification of magnets in a tub from China.

Dear Ms. Pan:

In your letter dated September 19, 2017 you requested a tariff classification ruling.

Product number 92500 consists of 30 magnets contained in a plastic tub packaged ready for retail sale. The assorted colored magnets are primarily of isotropic ferrite material embedded in a circular shaped cover of plastic material. The magnets are available in three sizes that measure 5/8", 1 1/8" or 1 1/2" in diameter. The magnets can be used on metal surfaces, such as cabinets and presentation boards.

The applicable subheading for product number 92500, which consists of 30 magnets contained in a plastic tub, will be 8505.11.0030, Harmonized Tariff Schedule of the United States (HTSUS), which provides for Electromagnets; permanent magnets and articles intended to become permanent magnets after magnetization...Of metal, Ceramic. The general rate of duty is 2.1 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N294204

March 8, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification

TARIFF NO.: 8501.10.4040

Julio Martinez  
Nidec Automotive Motor Americas LLC  
1325 Pendale Road Suite F  
El Paso, TX 79936

RE: The tariff classification of a Haptic Motor from Vietnam

Dear Mr. Martinez:

In your letter dated February 8, 2018 you requested a tariff classification ruling.

The item under consideration is referred to as a Haptic Motor, part number 20170919, and is described as consisting of a 20mm DC motor, a counterweight, and a plastic enclosure. The subject motor is intended to be mounted to a vehicle seat to provide a vibrating warning signal to the driver during certain safety conditions. The motors are controlled by receiving a signal from the vehicle's Memory Seat Module with the engine control unit.

The applicable subheading for the Haptic Motor, part number 20170919, will be 8501.10.4040, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Electric motors and generators...: Motors of an output not exceeding 37.5 W: Of under 18.65 W: Other: DC: Brushless". The general rate of duty will be 4.4% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N297309

June 20, 2018

CLA-2-91:OT:RR:NC:N1:113

CATEGORY: Classification

TARIFF NO.: 9105.11.40

Ms. Kathy Trotta  
Conair Corporation  
150 Milford Road  
East Windsor, NJ 08520

RE: The tariff classification of an Alarm Clock/Charging Station with Bluetooth from China

Dear Ms. Trotta:

In your letter dated May 16, 2018, you requested a tariff classification ruling. A sample and a user manual were submitted for our review and will be returned to you as requested.

The item under consideration is identified as the Luna and referred to in your letter as an Alarm Clock/Charging Station with Bluetooth, Item Number WCR450. The Luna is comprised of a digital alarm clock with an opto-electronic display, a static converter (charging base), a speaker and a Bluetooth transceiver. The subject article has two 120 volt power AC outlets on one side and two USB charging ports on the other side. The item features a Bluetooth button that syncs to a personal device, such as an iPhone and/or iPod which plays through the speakers located on each side of the item. The alarm clock contains a backup battery function in case the AC supply is interrupted. Two AAA batteries are required but are not included with the product.

The Luna is a composite article that consists of a digital alarm clock classifiable under heading 9105, a static converter (charging base) under heading 8504, a speaker under heading 8517, and a Bluetooth transceiver under heading 8518, Harmonized Tariff Schedule of the United States (HTSUS). Classification of merchandise under the HTSUS is in accordance with the General Rules of Interpretation (GRIs), taken in order. GRI 1 provides that classification shall be determined according to the terms of the headings and any relative section or chapter notes. Since no one heading in the tariff schedules covers the components of the Luna in combination, GRI 1 cannot be used as a basis for classification. GRI 3(b) provides that mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale shall be classified as if they consisted of the material or component which gives them their essential character. The essential character of an item may be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the article. GRI 3(c) states that when goods cannot be classified by reference to GRI 3(a) or 3(b), they shall be classified under the heading which occurs last in numerical order

among those which equally merit consideration. In the opinion of this office, none of the components imparts the essential character, since each component performs a significant role in the function of the Luna. Therefore, in accordance with GRI 3(c), the Luna will be classified in the heading which appears last in numerical order among those which equally merit consideration. Applying GRI 3(c), the article under consideration is classifiable under heading 9105, HTSUS, since it occurs last in numerical order of the competing headings. The Luna will be classified in heading 9105, HTSUS, which provides for other clocks.

The applicable subheading for the Luna Alarm Clock/Charging Station with Bluetooth, Item Number WCR450, will be 9105.11.40, HTSUS, which provides for other clocks; alarm clocks: electrically operated: with opto-electronic display only. The rate of duty will be 3.9 percent on the movement and case plus 5.3 percent on the battery.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Ann Taub@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N297309

June 20, 2018

CLA-2-91:OT:RR:NC:N1:113

CATEGORY: Classification

TARIFF NO.: 9105.11.40

Ms. Kathy Trotta  
Conair Corporation  
150 Milford Road  
East Windsor, NJ 08520

RE: The tariff classification of an Alarm Clock/Charging Station with Bluetooth from China

Dear Ms. Trotta:

In your letter dated May 16, 2018, you requested a tariff classification ruling. A sample and a user manual were submitted for our review and will be returned to you as requested.

The item under consideration is identified as the Luna and referred to in your letter as an Alarm Clock/Charging Station with Bluetooth, Item Number WCR450. The Luna is comprised of a digital alarm clock with an opto-electronic display, a static converter (charging base), a speaker and a Bluetooth transceiver. The subject article has two 120 volt power AC outlets on one side and two USB charging ports on the other side. The item features a Bluetooth button that syncs to a personal device, such as an iPhone and/or iPod which plays through the speakers located on each side of the item. The alarm clock contains a backup battery function in case the AC supply is interrupted. Two AAA batteries are required but are not included with the product.

The Luna is a composite article that consists of a digital alarm clock classifiable under heading 9105, a static converter (charging base) under heading 8504, a speaker under heading 8517, and a Bluetooth transceiver under heading 8518, Harmonized Tariff Schedule of the United States (HTSUS). Classification of merchandise under the HTSUS is in accordance with the General Rules of Interpretation (GRIs), taken in order. GRI 1 provides that classification shall be determined according to the terms of the headings and any relative section or chapter notes. Since no one heading in the tariff schedules covers the components of the Luna in combination, GRI 1 cannot be used as a basis for classification. GRI 3(b) provides that mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale shall be classified as if they consisted of the material or component which gives them their essential character. The essential character of an item may be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the article. GRI 3(c) states that when goods cannot be classified by reference to GRI 3(a) or 3(b), they shall be classified under the heading which occurs last in numerical order

among those which equally merit consideration. In the opinion of this office, none of the components imparts the essential character, since each component performs a significant role in the function of the Luna. Therefore, in accordance with GRI 3(c), the Luna will be classified in the heading which appears last in numerical order among those which equally merit consideration. Applying GRI 3(c), the article under consideration is classifiable under heading 9105, HTSUS, since it occurs last in numerical order of the competing headings. The Luna will be classified in heading 9105, HTSUS, which provides for other clocks.

The applicable subheading for the Luna Alarm Clock/Charging Station with Bluetooth, Item Number WCR450, will be 9105.11.40, HTSUS, which provides for other clocks; alarm clocks: electrically operated: with opto-electronic display only. The rate of duty will be 3.9 percent on the movement and case plus 5.3 percent on the battery.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Ann Taub@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N297309

June 20, 2018

CLA-2-91:OT:RR:NC:N1:113

CATEGORY: Classification

TARIFF NO.: 9105.11.40

Ms. Kathy Trotta  
Conair Corporation  
150 Milford Road  
East Windsor, NJ 08520

RE: The tariff classification of an Alarm Clock/Charging Station with Bluetooth from China

Dear Ms. Trotta:

In your letter dated May 16, 2018, you requested a tariff classification ruling. A sample and a user manual were submitted for our review and will be returned to you as requested.

The item under consideration is identified as the Luna and referred to in your letter as an Alarm Clock/Charging Station with Bluetooth, Item Number WCR450. The Luna is comprised of a digital alarm clock with an opto-electronic display, a static converter (charging base), a speaker and a Bluetooth transceiver. The subject article has two 120 volt power AC outlets on one side and two USB charging ports on the other side. The item features a Bluetooth button that syncs to a personal device, such as an iPhone and/or iPod which plays through the speakers located on each side of the item. The alarm clock contains a backup battery function in case the AC supply is interrupted. Two AAA batteries are required but are not included with the product.

The Luna is a composite article that consists of a digital alarm clock classifiable under heading 9105, a static converter (charging base) under heading 8504, a speaker under heading 8517, and a Bluetooth transceiver under heading 8518, Harmonized Tariff Schedule of the United States (HTSUS). Classification of merchandise under the HTSUS is in accordance with the General Rules of Interpretation (GRIs), taken in order. GRI 1 provides that classification shall be determined according to the terms of the headings and any relative section or chapter notes. Since no one heading in the tariff schedules covers the components of the Luna in combination, GRI 1 cannot be used as a basis for classification. GRI 3(b) provides that mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale shall be classified as if they consisted of the material or component which gives them their essential character. The essential character of an item may be determined by the nature of the material or component, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the article. GRI 3(c) states that when goods cannot be classified by reference to GRI 3(a) or 3(b), they shall be classified under the heading which occurs last in numerical order

among those which equally merit consideration. In the opinion of this office, none of the components imparts the essential character, since each component performs a significant role in the function of the Luna. Therefore, in accordance with GRI 3(c), the Luna will be classified in the heading which appears last in numerical order among those which equally merit consideration. Applying GRI 3(c), the article under consideration is classifiable under heading 9105, HTSUS, since it occurs last in numerical order of the competing headings. The Luna will be classified in heading 9105, HTSUS, which provides for other clocks.

The applicable subheading for the Luna Alarm Clock/Charging Station with Bluetooth, Item Number WCR450, will be 9105.11.40, HTSUS, which provides for other clocks; alarm clocks: electrically operated: with opto-electronic display only. The rate of duty will be 3.9 percent on the movement and case plus 5.3 percent on the battery.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Ann Taub@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N297495

June 8, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification

TARIFF NO.: 8543.70.9960

Christopher Romero  
Signal Power and Light  
17 Executive Park Drive, NE 405  
Atlanta, GA 30329

RE: The tariff classification of cryptocurrency mining machines from China

Dear Mr. Romero:

In your letter dated May 29, 2018 you requested a tariff classification ruling.

You have provided two items for consideration, both of which are used in mining various types of cryptocurrency. The first item is referred to as the Antminer S9 which consists of an aluminum enclosure, two cooling fans, a control board printed circuit board assembly (PCBA), and three separate PCBAs that are commonly referred to as hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous application specific integrated circuits (ASICs) and heat sinks on both sides.

In use, the Antminer S9 has a dedicated function of performing hash calculations for cryptocurrency transactions. Power supplies are attached to each hashboard and the Antminer S9 is connected to a network via the Ethernet port. Users would address the Antminer S9 with a separate automatic data processing (ADP) machine and configure the device to perform the mining calculations for their selected cryptocurrency. We would note that neither the power supplies nor the ADP machine are imported with the Antminer S9.

The second item under consideration is referred to as the DragonMint Miner which consists of an aluminum enclosure, a control board, and three PCBA hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous ASICs and heat sinks on both sides. Like the Antminer S9, the DragonMint Miner is a machine dedicated to performing hash calculations for cryptocurrency transactions. Once users connect a separate power supply to the hashboards and an Ethernet connection to the controller, they would address the mining device with a separate ADP machine and configure the unit to perform the mining calculations. Neither the power supplies nor the ADP machine are imported with the DragonMint Miner.

You suggest the subject cryptocurrency miners are properly classified under 8471.50.1050, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Automatic data processing machines and units thereof... Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units: Other.” This office disagrees with the proposed classification.

Merchandise is classifiable under the HTSUS in accordance with the General Rules of Interpretation (GRIs). The systematic detail of the HTSUS is such that most goods are classified by application of GRI 1, that is, according to the terms of the headings of the tariff schedule and any relative Section or Chapter Notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

Heading 8471, HTSUS, is governed by the terms of Note 5 to Chapter 84, HTSUS, which provides, in relevant part:

(A) For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:

- (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
- (ii) Being freely programmed in accordance with the requirements of the user;
- (iii) Performing arithmetical computations specified by the user; and
- (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.

(C) Subject to paragraphs (D) and (E) below, a unit is to be regarded as being part of an automatic data processing system if it meets all of the following conditions:

- (i) It is of a kind solely or principally used in an automatic data processing system;
- (ii) It is connectable to the central processing unit either directly or through one or more other units; and
- (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.

(E) Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective functions or, failing that, in residual headings.

Section XVI, Note 4, HTSUS, states, in relevant part:

Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.

In understanding the language of the HTSUS, the Harmonized Commodity Description and Coding System Explanatory Notes (ENs), although not dispositive or legally binding, provide a commentary on the scope of each heading of the HTSUS, and are the official interpretation of the Harmonized System at the international level. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989). In EN 84.71(B) (2017), it is explained that an apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

- (a) Performs a data processing function;
- (b) Meets the following criteria set out in Note 5 (C) to this Chapter :
  - (i) It is of a kind solely or principally used in an automatic data processing system;
  - (ii) It is connectable to the central processing unit either directly or through one or more other units; and
  - (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
- (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter.

With regard to classification of the subject mining machines as an ADP machine in subheading 8471.50, HTSUS, we would note that the devices meet the requirements of Note 5 (A)(i) and (iv) in that they store the execution data and can automatically make logical decisions during the processing run. However, as the ENs explain in 84.71 (I), machines which operate only on fixed programs which cannot be modified by the user are excluded from heading 8471, HTSUS, even though the user may be able to choose between a number of fixed programs. Consequently, the merchandise does not meet the requirements of Note 5 (A)(ii), which requires that ADP machines be freely programmable. A freely programmable ADP machine is one for which applications can be written, does not impose artificial limitations upon such applications, and will accept new applications that allow the user to manipulate the data as deemed necessary by the user. See, e.g., Optrex America Inc. v. United States, 472 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 745 F.3d 1367 (Fed. Cir. 2007). As a result of not being able to simultaneously fulfill all of the requirements of Note 5 (A) to Chapter 84, HTSUS, the subject merchandise cannot be classified as an ADP machine.

Turning to classification of the subject mining machines as units of an ADP machine, we have established that both the Antminer S9 as well as the DragonMint Miner are indirectly connected to an ADP system, that the devices receive their instruction from said system, and that they consist of a controller PCBA and individual hashboards. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining.

Based on the dedicated nature of the mining machine, we would point to Note 5 (E) to Chapter 84 which precisely addresses the question of whether or not the mining machines can be classified as a unit of an ADP machine. In Note 5 (E) we are directed to exclude machines that perform a specific function which is not data processing. The Antminer S9 and the DragonMint Miner are completely dedicated to the mining function. The mining function is particularly specialized and machines

dedicated to this function are nearly autonomous once the target currency is programmed onto the control board. The ADP machine is only used to configure the mining device and receive status of its mining calculations. Furthermore, for the purpose of classifying ADP machines and their units, the process of mining cryptocurrency is not recognized as a data processing function. Thus, the Antminer S9 and the DragonMint Miner cannot be classified under heading 8471, HTSUS, as units of an ADP machine because they do not meet all of the requirements of Note 5 (C) to Chapter 84, HTSUS. Specifically, they are not solely or principally used with ADP machines and they perform a specific function other than data processing. See EN 84.71(I)(B).

Based on the information provided, the subject mining machines are limited in their capabilities since they are not freely programmable by the user and do not meet all the requirements of Note 5 (A) to Chapter 84, HTSUS. Moreover, because the mining machines have a dedicated function which is not data processing, Note 5 (E) requires that we classify the devices in residual headings.

By application of GRI 1, and Chapter 84 Note 5 (A) and (E), the applicable subheading for the Antminer S9 and DragonMint Miner will be 8543.70.9960, HTSUS, which provides for “Electrical machines and apparatus...: Other machines and apparatus: Other: Other: Other: Other”. The rate of duty will be 2.6 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N299096

July 25, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification; Origin

TARIFF NO.: 8501.10.4060

Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: The tariff classification and country of origin of electric motors from Mexico

Dear Mr. Turner:

In your letter dated July 17, 2018 you requested a tariff classification and country of origin determination ruling.

The merchandise under consideration is referred to as a Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts. You state that the electric motor is intended to be used with electric door locks and suggest the classification is 8501.10.4060, Harmonized Tariff Schedule of the United States (HTSUS). We agree.

The applicable subheading for the Direct Current Electric Motor 1999-1020656EP will be 8501.10.4060, HTSUS, which provides for "Electric motors...: Motors of an output not exceeding 37.5 W: Of under 18.65 W: DC: Other." The rate of duty will be 4.4%.

With regard to the country of origin of the finished motor, you state that your factory in Mexico imports three components from China which are assembled in your facility into a finished good. The parts that are assembled into the motor are as follows: the stator or rear housing, PN 1300-M020005; the rotor or armature assembly, 1100-M020010; and the end cap assembly, 1200-M020007. Each of these components are classified in subheading 8503.00, HTSUS and you suggest that while the country of origin of all three parts is China, they are substantially transformed into a finished motor in your factory in Mexico where the final country of origin would therefore be Mexico. We disagree.

Initially, we would note that for the purposes of determining country of origin of goods of a North American Free Trade Agreement participating country, we are compelled to follow the Rules of Origin in 19 CFR 102.

The manufacturing operation described in your request involves assembling three foreign subassemblies into a finished electric motor. However, 19 CFR 102.11(d)(2) states: "If the good was produced by simple assembly and the assembled parts that merit equal consideration for determining the essential character of the good are from the same country, the country of origin of the good is the country of origin of those parts".

Simple assembly is defined in 19 CFR 102.14(o), in pertinent part, as "the fitting together of five or fewer parts all of which are foreign (excluding fasteners such as screws, bolts, etc.) by bolting, gluing, soldering, sewing or by other means without more than minor processing". Based upon the information provided, there are three foreign subassemblies that are combined to form an electric motor and this office is of the opinion that the manufacturing process taking place in Mexico is merely simple assembly.

As a result of the foregoing, the country of origin of the Direct Current Electric Motor 1999-1020656EP will be China.

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information see "Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation" (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01 and classified in one of the subheadings enumerated in U.S. note 20(b) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by subheading 9903.88.01.

Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.4060, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N299096

July 25, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification; Origin

TARIFF NO.: 8501.10.4060

Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: The tariff classification and country of origin of electric motors from Mexico

Dear Mr. Turner:

In your letter dated July 17, 2018 you requested a tariff classification and country of origin determination ruling.

The merchandise under consideration is referred to as a Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts. You state that the electric motor is intended to be used with electric door locks and suggest the classification is 8501.10.4060, Harmonized Tariff Schedule of the United States (HTSUS). We agree.

The applicable subheading for the Direct Current Electric Motor 1999-1020656EP will be 8501.10.4060, HTSUS, which provides for "Electric motors...: Motors of an output not exceeding 37.5 W: Of under 18.65 W: DC: Other." The rate of duty will be 4.4%.

With regard to the country of origin of the finished motor, you state that your factory in Mexico imports three components from China which are assembled in your facility into a finished good. The parts that are assembled into the motor are as follows: the stator or rear housing, PN 1300-M020005; the rotor or armature assembly, 1100-M020010; and the end cap assembly, 1200-M020007. Each of these components are classified in subheading 8503.00, HTSUS and you suggest that while the country of origin of all three parts is China, they are substantially transformed into a finished motor in your factory in Mexico where the final country of origin would therefore be Mexico. We disagree.

Initially, we would note that for the purposes of determining country of origin of goods of a North American Free Trade Agreement participating country, we are compelled to follow the Rules of Origin in 19 CFR 102.

The manufacturing operation described in your request involves assembling three foreign subassemblies into a finished electric motor. However, 19 CFR 102.11(d)(2) states: "If the good was produced by simple assembly and the assembled parts that merit equal consideration for determining the essential character of the good are from the same country, the country of origin of the good is the country of origin of those parts".

Simple assembly is defined in 19 CFR 102.14(o), in pertinent part, as "the fitting together of five or fewer parts all of which are foreign (excluding fasteners such as screws, bolts, etc.) by bolting, gluing, soldering, sewing or by other means without more than minor processing". Based upon the information provided, there are three foreign subassemblies that are combined to form an electric motor and this office is of the opinion that the manufacturing process taking place in Mexico is merely simple assembly.

As a result of the foregoing, the country of origin of the Direct Current Electric Motor 1999-1020656EP will be China.

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information see "Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation" (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01 and classified in one of the subheadings enumerated in U.S. note 20(b) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by subheading 9903.88.01.

Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.4060, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

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A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N299096

July 25, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification; Origin

TARIFF NO.: 8501.10.4060

Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: The tariff classification and country of origin of electric motors from Mexico

Dear Mr. Turner:

In your letter dated July 17, 2018 you requested a tariff classification and country of origin determination ruling.

The merchandise under consideration is referred to as a Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts. You state that the electric motor is intended to be used with electric door locks and suggest the classification is 8501.10.4060, Harmonized Tariff Schedule of the United States (HTSUS). We agree.

The applicable subheading for the Direct Current Electric Motor 1999-1020656EP will be 8501.10.4060, HTSUS, which provides for "Electric motors...: Motors of an output not exceeding 37.5 W: Of under 18.65 W: DC: Other." The rate of duty will be 4.4%.

With regard to the country of origin of the finished motor, you state that your factory in Mexico imports three components from China which are assembled in your facility into a finished good. The parts that are assembled into the motor are as follows: the stator or rear housing, PN 1300-M020005; the rotor or armature assembly, 1100-M020010; and the end cap assembly, 1200-M020007. Each of these components are classified in subheading 8503.00, HTSUS and you suggest that while the country of origin of all three parts is China, they are substantially transformed into a finished motor in your factory in Mexico where the final country of origin would therefore be Mexico. We disagree.

Initially, we would note that for the purposes of determining country of origin of goods of a North American Free Trade Agreement participating country, we are compelled to follow the Rules of Origin in 19 CFR 102.

The manufacturing operation described in your request involves assembling three foreign subassemblies into a finished electric motor. However, 19 CFR 102.11(d)(2) states: "If the good was produced by simple assembly and the assembled parts that merit equal consideration for determining the essential character of the good are from the same country, the country of origin of the good is the country of origin of those parts".

Simple assembly is defined in 19 CFR 102.14(o), in pertinent part, as "the fitting together of five or fewer parts all of which are foreign (excluding fasteners such as screws, bolts, etc.) by bolting, gluing, soldering, sewing or by other means without more than minor processing". Based upon the information provided, there are three foreign subassemblies that are combined to form an electric motor and this office is of the opinion that the manufacturing process taking place in Mexico is merely simple assembly.

As a result of the foregoing, the country of origin of the Direct Current Electric Motor 1999-1020656EP will be China.

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information see "Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation" (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01 and classified in one of the subheadings enumerated in U.S. note 20(b) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by subheading 9903.88.01.

Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.4060, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N299096

July 25, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification; Origin

TARIFF NO.: 8501.10.4060

Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: The tariff classification and country of origin of electric motors from Mexico

Dear Mr. Turner:

In your letter dated July 17, 2018 you requested a tariff classification and country of origin determination ruling.

The merchandise under consideration is referred to as a Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts. You state that the electric motor is intended to be used with electric door locks and suggest the classification is 8501.10.4060, Harmonized Tariff Schedule of the United States (HTSUS). We agree.

The applicable subheading for the Direct Current Electric Motor 1999-1020656EP will be 8501.10.4060, HTSUS, which provides for "Electric motors...: Motors of an output not exceeding 37.5 W: Of under 18.65 W: DC: Other." The rate of duty will be 4.4%.

With regard to the country of origin of the finished motor, you state that your factory in Mexico imports three components from China which are assembled in your facility into a finished good. The parts that are assembled into the motor are as follows: the stator or rear housing, PN 1300-M020005; the rotor or armature assembly, 1100-M020010; and the end cap assembly, 1200-M020007. Each of these components are classified in subheading 8503.00, HTSUS and you suggest that while the country of origin of all three parts is China, they are substantially transformed into a finished motor in your factory in Mexico where the final country of origin would therefore be Mexico. We disagree.

Initially, we would note that for the purposes of determining country of origin of goods of a North American Free Trade Agreement participating country, we are compelled to follow the Rules of Origin in 19 CFR 102.

The manufacturing operation described in your request involves assembling three foreign subassemblies into a finished electric motor. However, 19 CFR 102.11(d)(2) states: "If the good was produced by simple assembly and the assembled parts that merit equal consideration for determining the essential character of the good are from the same country, the country of origin of the good is the country of origin of those parts".

Simple assembly is defined in 19 CFR 102.14(o), in pertinent part, as "the fitting together of five or fewer parts all of which are foreign (excluding fasteners such as screws, bolts, etc.) by bolting, gluing, soldering, sewing or by other means without more than minor processing". Based upon the information provided, there are three foreign subassemblies that are combined to form an electric motor and this office is of the opinion that the manufacturing process taking place in Mexico is merely simple assembly.

As a result of the foregoing, the country of origin of the Direct Current Electric Motor 1999-1020656EP will be China.

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information see "Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation" (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01 and classified in one of the subheadings enumerated in U.S. note 20(b) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by subheading 9903.88.01.

Products of China classified under subheading 8501.10.40, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8501.10.4060, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N299096

July 25, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification; Origin

TARIFF NO.: 8501.10.4060

Kevin Turner  
Johnson Electric  
47660 Halyard Dr.  
Plymouth, MI 48170

RE: The tariff classification and country of origin of electric motors from Mexico

Dear Mr. Turner:

In your letter dated July 17, 2018 you requested a tariff classification and country of origin determination ruling.

The merchandise under consideration is referred to as a Direct Current Electric Motor 1999-1020656EP, which is described as a brushed electric motor with a peak output power of 5.793 Watts. You state that the electric motor is intended to be used with electric door locks and suggest the classification is 8501.10.4060, Harmonized Tariff Schedule of the United States (HTSUS). We agree.

The applicable subheading for the Direct Current Electric Motor 1999-1020656EP will be 8501.10.4060, HTSUS, which provides for "Electric motors...: Motors of an output not exceeding 37.5 W: Of under 18.65 W: DC: Other." The rate of duty will be 4.4%.

With regard to the country of origin of the finished motor, you state that your factory in Mexico imports three components from China which are assembled in your facility into a finished good. The parts that are assembled into the motor are as follows: the stator or rear housing, PN 1300-M020005; the rotor or armature assembly, 1100-M020010; and the end cap assembly, 1200-M020007. Each of these components are classified in subheading 8503.00, HTSUS and you suggest that while the country of origin of all three parts is China, they are substantially transformed into a finished motor in your factory in Mexico where the final country of origin would therefore be Mexico. We disagree.

Initially, we would note that for the purposes of determining country of origin of goods of a North American Free Trade Agreement participating country, we are compelled to follow the Rules of Origin in 19 CFR 102.

The manufacturing operation described in your request involves assembling three foreign subassemblies into a finished electric motor. However, 19 CFR 102.11(d)(2) states: "If the good was produced by simple assembly and the assembled parts that merit equal consideration for determining the essential character of the good are from the same country, the country of origin of the good is the country of origin of those parts".

Simple assembly is defined in 19 CFR 102.14(o), in pertinent part, as "the fitting together of five or fewer parts all of which are foreign (excluding fasteners such as screws, bolts, etc.) by bolting, gluing, soldering, sewing or by other means without more than minor processing". Based upon the information provided, there are three foreign subassemblies that are combined to form an electric motor and this office is of the opinion that the manufacturing process taking place in Mexico is merely simple assembly.

As a result of the foregoing, the country of origin of the Direct Current Electric Motor 1999-1020656EP will be China.

Effective July 6, 2018, the Office of the United States Trade Representative imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. For additional information see "Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation" (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01 and classified in one of the subheadings enumerated in U.S. note 20(b) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by subheading 9903.88.01.

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The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

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A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N299670

August 28, 2018

CLA-2-84:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8414.59.6540

Mr. Aaron Marx  
Crowell & Moring, LLP  
1001 Pennsylvania Ave NW  
Washington, D.C. 20004

RE: The tariff classification of motor vehicle fans from China

Dear Mr. Marx:

In your letter dated August 2, 2018, on behalf of your client Valeo North America, Inc. of Troy, Michigan, you requested a tariff classification ruling. Descriptive information was provided.

The articles in question are part numbers T950616, T1016326U and T1025819Q, which are described as fans. The fans are used in motor vehicles and consist of a cylindrical fan blade, copper coil and a brushless DC motor. The function of the fan is to produce and circulate air flow through the systems they are specifically designed to be used with. Part number T950616 is assembled to the air conditioning unit of a motor vehicle and part numbers T1025819Q and T1016326U are assembled to a battery cooling system of a motor vehicle.

The applicable subheading for the fans, part numbers T950616, T1016326U and T1025819Q, will be 8414.59.6540, Harmonized Tariff Schedule of the United States, (HTSUS), which provides for Air or vacuum pumps, air or other gas compressors and fans...Fans; Other: Other, Other; Suitable for use with motor vehicles. The general rate of duty will be 2.3 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N299670

August 28, 2018

CLA-2-84:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8414.59.6540

Mr. Aaron Marx  
Crowell & Moring, LLP  
1001 Pennsylvania Ave NW  
Washington, D.C. 20004

RE: The tariff classification of motor vehicle fans from China

Dear Mr. Marx:

In your letter dated August 2, 2018, on behalf of your client Valeo North America, Inc. of Troy, Michigan, you requested a tariff classification ruling. Descriptive information was provided.

The articles in question are part numbers T950616, T1016326U and T1025819Q, which are described as fans. The fans are used in motor vehicles and consist of a cylindrical fan blade, copper coil and a brushless DC motor. The function of the fan is to produce and circulate air flow through the systems they are specifically designed to be used with. Part number T950616 is assembled to the air conditioning unit of a motor vehicle and part numbers T1025819Q and T1016326U are assembled to a battery cooling system of a motor vehicle.

The applicable subheading for the fans, part numbers T950616, T1016326U and T1025819Q, will be 8414.59.6540, Harmonized Tariff Schedule of the United States, (HTSUS), which provides for Air or vacuum pumps, air or other gas compressors and fans...Fans; Other: Other, Other; Suitable for use with motor vehicles. The general rate of duty will be 2.3 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300201

September 11, 2018

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 8517.62.0050

Brenda A. Jacobs  
Sidley Austin LLP  
1501 K Street, N.W.  
Washington, D.C. 20005

RE: The tariff classification of fleet tracking devices from China and/or Mexico

Dear Ms. Jacobs:

In your letter dated August 14, 2018, you requested a tariff classification ruling on behalf of your client, Flex Ltd.

The items concerned are the Flex OBD-II asset tracker, the TT600 solar powered asset tracker with Cat-M, and the TT603 solar powered asset tracker with Cat-M.

The primary purpose of these devices is to collect, record and transmit/receive data essential to asset management (assets such as vehicles, trailers or containers). The information gathered enables fleet owners to identify key facts essential to analyzing and effectively managing fleets.

The Flex OBD-II asset tracker has access to a power source from the vehicle it is monitoring while the solar powered asset trackers are intended for trailers, containers, construction equipment, pumps, and other large unpowered assets.

Both the Flex OBD-II and the solar powered devices have global cellular connectivity. These devices receive and transmit data between an asset, such as a truck or a container, and a remote/external server connected to the internet, transmitting that data over a global wireless network. These devices collect and generate information related to data points such as fuel consumption, system health, driver behavior, speed, tire pressure, mileage traveled, and total stop time in non-depot locations. Fleet owners can use the collected data to identify what percentage of vehicles or other assets (such as trailers or containers) are in use in a particular month and thereby make capacity decisions.

The applicable subheading for the Flex OBD-II asset tracker, the TT600 solar powered asset tracker with Cat-M, and the TT603 solar powered asset tracker with Cat-M will be 8517.62.0050, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Telephone

sets...; other apparatus for the transmission or reception of voice, images or other data...: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other." The general rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at Steven.Pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300351

September 26, 2018

CLA-2-85:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8505.19.2000

Ms. Cindy Ingels  
REHAU Industries LLC  
1501 Edwards Ferry Road NE  
Leesburg, VA 20176

RE: The tariff classification of a door gasket from Mexico

Dear Ms. Ingels:

In your letter dated August 30, 2018, you requested a tariff classification ruling. Descriptive literature was submitted.

The article at issue is a door gasket. The gasket is a composite good that is described as a door seal. The article can be used in door applications, such as residential and commercial refrigerator door. The door gasket consists of an outer PVC material and has a flexible band insert. The polymer material allows the gasket to function as a seal and the magnetic insert allows the gasket to be affixed to a metal surface.

The classification of merchandise under the Harmonized Tariff Schedule of the United States (HTSUS) is governed by the General Rules of Interpretation ("GRIs"). General Rule of Interpretation 1 states in part that for legal purposes, classification shall be determined according to the terms of the headings and any relevant section or chapter notes and, unless otherwise required, according to the remaining GRIs taken in order.

In your letter, you suggest that the door gasket is classified in subheading 8418.99.8060, HTSUS, which provides for refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof; other; other; other; other.

It is a long-standing CBP practice to define "parts" within the meaning of the HTSUS using the following two tests. It must be an "integral, constituent, or component, without which the article to which it is to be joined could not function as such article" to be a part of an article. United States v.

Willoughby Camera Stores, Inc. An “imported item dedicated solely for use with another article is a “part” of that article within the meaning of the HTSUS.” United States v. Pompeo.

Based on the information provided, there is no indication that the refrigeration process completed by a residential and commercial refrigerator could not occur without the gasket. Also, the features of the gasket do not prevent this article from being used with other types of doors. As such, it is the opinion of this office that the door gasket is not a part of a refrigerator, freezer and other refrigerating or freezing equipment of heading 8418 within the CBP definition of a “part”. Thus, the door gasket is excluded from consideration of heading 8418.

Instead, the door gasket is considered to be a composite good within the meaning of GRI 3. Goods classifiable under GRI 3(b) shall be classified as if they consisted of material or a component which gives them their essential character.

The Explanatory Note to the HTSUS, GRI 3 (b) (VIII), states that the factors which determine essential character will vary between different kinds of goods. It may for example, be determined by the nature of the materials or components, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods. Inasmuch as no essential character can be determined for the instant item, GRI 3(b) does not apply.

GRI 3(c) states that when the essential character of a composite good cannot be determined, classification is based on the heading that occurs last in numerical order among those which equally merit consideration. In this case, the door gasket falls last within heading 8505, HTSUS, in accordance with GRI 3(c).

The applicable subheading for the door gasket will be 8505.19.2000, HTSUS, which provides for electromagnets; permanent magnets and articles intended to become permanent magnets after magnetization; electromagnetic or permanent magnet chucks, clamps and similar holding devices; electromagnetic couplings, clutches and brakes;electromagnetic lifting heads; composite good containing flexible magnet. The rate of duty will be 4.9 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <http://www.usitc.gov/tata/hts/>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.Martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300351

September 26, 2018

CLA-2-85:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8505.19.2000

Ms. Cindy Ingels  
REHAU Industries LLC  
1501 Edwards Ferry Road NE  
Leesburg, VA 20176

RE: The tariff classification of a door gasket from Mexico

Dear Ms. Ingels:

In your letter dated August 30, 2018, you requested a tariff classification ruling. Descriptive literature was submitted.

The article at issue is a door gasket. The gasket is a composite good that is described as a door seal. The article can be used in door applications, such as residential and commercial refrigerator door. The door gasket consists of an outer PVC material and has a flexible band insert. The polymer material allows the gasket to function as a seal and the magnetic insert allows the gasket to be affixed to a metal surface.

The classification of merchandise under the Harmonized Tariff Schedule of the United States (HTSUS) is governed by the General Rules of Interpretation ("GRIs"). General Rule of Interpretation 1 states in part that for legal purposes, classification shall be determined according to the terms of the headings and any relevant section or chapter notes and, unless otherwise required, according to the remaining GRIs taken in order.

In your letter, you suggest that the door gasket is classified in subheading 8418.99.8060, HTSUS, which provides for refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps, other than the air conditioning machines of heading 8415; parts thereof; other; other; other; other.

It is a long-standing CBP practice to define "parts" within the meaning of the HTSUS using the following two tests. It must be an "integral, constituent, or component, without which the article to which it is to be joined could not function as such article" to be a part of an article. United States v.

Willoughby Camera Stores, Inc. An “imported item dedicated solely for use with another article is a “part” of that article within the meaning of the HTSUS.” United States v. Pompeo.

Based on the information provided, there is no indication that the refrigeration process completed by a residential and commercial refrigerator could not occur without the gasket. Also, the features of the gasket do not prevent this article from being used with other types of doors. As such, it is the opinion of this office that the door gasket is not a part of a refrigerator, freezer and other refrigerating or freezing equipment of heading 8418 within the CBP definition of a “part”. Thus, the door gasket is excluded from consideration of heading 8418.

Instead, the door gasket is considered to be a composite good within the meaning of GRI 3. Goods classifiable under GRI 3(b) shall be classified as if they consisted of material or a component which gives them their essential character.

The Explanatory Note to the HTSUS, GRI 3 (b) (VIII), states that the factors which determine essential character will vary between different kinds of goods. It may for example, be determined by the nature of the materials or components, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods. Inasmuch as no essential character can be determined for the instant item, GRI 3(b) does not apply.

GRI 3(c) states that when the essential character of a composite good cannot be determined, classification is based on the heading that occurs last in numerical order among those which equally merit consideration. In this case, the door gasket falls last within heading 8505, HTSUS, in accordance with GRI 3(c).

The applicable subheading for the door gasket will be 8505.19.2000, HTSUS, which provides for electromagnets; permanent magnets and articles intended to become permanent magnets after magnetization; electromagnetic or permanent magnet chucks, clamps and similar holding devices; electromagnetic couplings, clutches and brakes;electromagnetic lifting heads; composite good containing flexible magnet. The rate of duty will be 4.9 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <http://www.usitc.gov/tata/hts/>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.Martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300421

September 26, 2018

CLA-2-85:OT:RR:NC:N4:410

CATEGORY: Classification

TARIFF NO.: 8509.80.5095

Mr. Michael T. Cone  
FisherBroyles, LLP  
445 Park Avenue Ninth Floor  
New York, NY 10022

RE: The tariff classification of the Drinkmaker from China

Dear Mr. Cone:

In your letter dated September 4, 2018, on behalf of your client Bedford Systems LLC d/b/a Drinkworks ("Drinkworks"), you requested a tariff classification ruling.

The product under consideration is the "Drinkmaker", an in-home alcoholic beverage maker. The Drinkmaker is a domestic appliance with a self-contained electric motor. Consumer will insert a pod of liquid syrup containing alcohol into the Drinkmaker; the Drinkmaker will mix the syrup with cold water (and if appropriate carbon dioxide), and the Drinkmaker will dispense the cold alcoholic beverage of the consumer's choice into a drinking vessel seated on the appliance. The Drinkmaker weighs approximately 20 (twenty) pounds, and will be able to dispense a wide variety of alcoholic beverages including carbonated beer and cider, and uncarbonated mixed drinks.

It is stated that the Drinkmaker is broadly similar in operation to the currently available Keurig single-serving drink makers, except that the Drinkmaker will produce cold alcoholic beverages from syrup pods instead of hot beverages such as coffee or tea. Thus, the consumer will fill the Drinkmaker's ambient water reservoir with water, select the desired pod, place it in the machine, and close the pod bay door, which contains a puncturing mechanism. After performing these mechanical exercises, the consumer will then push the start button to activate the Drinkmaker's electrical operations. Upon activation, internal pumps powered by self-contained motors will move the water from the ambient reservoir into the appliance's internal water tank. A solid-state cooling module, i.e., a thermoelectric Peltier device cools the liquid in the internal water tank. Heat produced by the Peltier device will be captured in a heat sink and expelled by an exhaust fan through the exhaust vent at the back of the appliance.

In your request, you proposed that this in-home alcoholic beverage maker should be classified under subheading 8516.79.0000, which provides for other electrothermic appliances of a kind

used for domestic purposes. We disagree. While this product uses a Peltier device that does create heat, the “[h]eat produced by the Peltier device will be captured in a heat sink and expelled by an exhaust fan through the exhaust vent at the back of the appliance.” The Peltier device within this appliance serves the chief function of cooling the internal water tank and the heat produced is simply a byproduct.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized Tariff Schedule of the United States (HTSUS) and are generally indicative of the proper interpretation of the headings.

Heading 8516 includes: electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric smoothing irons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 85.45. All of the products covered under this heading use heat to perform their primary task.

Further, the exemplars listed within the ENs for other electrothermic appliances of a kind used for domestic purposes include, in part: coffee or tea makers; kettles, saucepans, steamers; plate warmers and food warmers; bottle heaters; yogurt and cheese makers; sterilising apparatus for preparing preserves; and non-mechanical wash boilers. Again, the heat produced is principal to these devices overall utility. The referenced Keurig appliances were all classified under subheading 8516.71, which provides for domestic electric coffee and tea makers. It is agreed that domestic electric coffee makers are specifically provided for under heading 8516, but this product is not a coffee or tea maker nor is it of a like or kind of any of the listed exemplars. In the cited Headquarters ruling H257787, dated August 31, 2015, “the CoolCooker™ is not a cooler principally used to refrigerate food. The CoolCooker™ cooks and prepares food for slow cooking.” This further affirms that the use of heat, in this instance to cook food, allows classification within heading 8516. Counter to what you state, the simple production of heat by a product is not sufficient enough for classification under this heading as countless electric articles produce heat as a byproduct and have been classified elsewhere by numerous other rulings. Even the Peltier device, if present in a device principally designed to cool, were classified outside of heading 8516 as per the examples mentioned in this Headquarters ruling. As this drink maker does not use heat for its principal function, it would not be classified within this heading and subheading 8516.79.0000, HTSUS, would not be applicable.

The applicable subheading for the Drinkmaker will be 8509.80.5095, HTSUS, which provides for electromechanical domestic appliances, with self-contained electric motor, other appliances, other. The rate of duty will be 4.2 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Hope Abada at [hope.abada@cbp.dhs.gov](mailto:hope.abada@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300421

September 26, 2018

CLA-2-85:OT:RR:NC:N4:410

CATEGORY: Classification

TARIFF NO.: 8509.80.5095

Mr. Michael T. Cone  
FisherBroyles, LLP  
445 Park Avenue Ninth Floor  
New York, NY 10022

RE: The tariff classification of the Drinkmaker from China

Dear Mr. Cone:

In your letter dated September 4, 2018, on behalf of your client Bedford Systems LLC d/b/a Drinkworks ("Drinkworks"), you requested a tariff classification ruling.

The product under consideration is the "Drinkmaker", an in-home alcoholic beverage maker. The Drinkmaker is a domestic appliance with a self-contained electric motor. Consumer will insert a pod of liquid syrup containing alcohol into the Drinkmaker; the Drinkmaker will mix the syrup with cold water (and if appropriate carbon dioxide), and the Drinkmaker will dispense the cold alcoholic beverage of the consumer's choice into a drinking vessel seated on the appliance. The Drinkmaker weighs approximately 20 (twenty) pounds, and will be able to dispense a wide variety of alcoholic beverages including carbonated beer and cider, and uncarbonated mixed drinks.

It is stated that the Drinkmaker is broadly similar in operation to the currently available Keurig single-serving drink makers, except that the Drinkmaker will produce cold alcoholic beverages from syrup pods instead of hot beverages such as coffee or tea. Thus, the consumer will fill the Drinkmaker's ambient water reservoir with water, select the desired pod, place it in the machine, and close the pod bay door, which contains a puncturing mechanism. After performing these mechanical exercises, the consumer will then push the start button to activate the Drinkmaker's electrical operations. Upon activation, internal pumps powered by self-contained motors will move the water from the ambient reservoir into the appliance's internal water tank. A solid-state cooling module, i.e., a thermoelectric Peltier device cools the liquid in the internal water tank. Heat produced by the Peltier device will be captured in a heat sink and expelled by an exhaust fan through the exhaust vent at the back of the appliance.

In your request, you proposed that this in-home alcoholic beverage maker should be classified under subheading 8516.79.0000, which provides for other electrothermic appliances of a kind

used for domestic purposes. We disagree. While this product uses a Peltier device that does create heat, the “[h]eat produced by the Peltier device will be captured in a heat sink and expelled by an exhaust fan through the exhaust vent at the back of the appliance.” The Peltier device within this appliance serves the chief function of cooling the internal water tank and the heat produced is simply a byproduct.

The Harmonized Commodity Description and Coding System Explanatory Notes (ENs) constitute the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the Harmonized Tariff Schedule of the United States (HTSUS) and are generally indicative of the proper interpretation of the headings.

Heading 8516 includes: electric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric smoothing irons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 85.45. All of the products covered under this heading use heat to perform their primary task.

Further, the exemplars listed within the ENs for other electrothermic appliances of a kind used for domestic purposes include, in part: coffee or tea makers; kettles, saucepans, steamers; plate warmers and food warmers; bottle heaters; yogurt and cheese makers; sterilising apparatus for preparing preserves; and non-mechanical wash boilers. Again, the heat produced is principal to these devices overall utility. The referenced Keurig appliances were all classified under subheading 8516.71, which provides for domestic electric coffee and tea makers. It is agreed that domestic electric coffee makers are specifically provided for under heading 8516, but this product is not a coffee or tea maker nor is it of a like or kind of any of the listed exemplars. In the cited Headquarters ruling H257787, dated August 31, 2015, “the CoolCooker™ is not a cooler principally used to refrigerate food. The CoolCooker™ cooks and prepares food for slow cooking.” This further affirms that the use of heat, in this instance to cook food, allows classification within heading 8516. Counter to what you state, the simple production of heat by a product is not sufficient enough for classification under this heading as countless electric articles produce heat as a byproduct and have been classified elsewhere by numerous other rulings. Even the Peltier device, if present in a device principally designed to cool, were classified outside of heading 8516 as per the examples mentioned in this Headquarters ruling. As this drink maker does not use heat for its principal function, it would not be classified within this heading and subheading 8516.79.0000, HTSUS, would not be applicable.

The applicable subheading for the Drinkmaker will be 8509.80.5095, HTSUS, which provides for electromechanical domestic appliances, with self-contained electric motor, other appliances, other. The rate of duty will be 4.2 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Hope Abada at [hope.abada@cbp.dhs.gov](mailto:hope.abada@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300601

October 9, 2018

CLA-2-84:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8483.50.9080, 8511.90.6040, 9903.88.01

Ms. Stephanie Sherrod  
Echo Inc.  
400 Oakwood Road Echo  
Lake Zurich, IL 60047

RE: The tariff classification of a pulley assembly and a recoil assembly from China

Dear Ms. Sherrod:

In your letter dated September 14, 2018, you requested a tariff classification ruling for two items.

The first item under consideration is referred to as a “pulley assembly”. The assembly is used in conjunction with a recoil starter and is designed to turn a coiled rope in a forward or reverse direction. The unit is installed onto the engine of an agricultural machine

The second item under consideration has been identified as a “recoil starter assembly”, which is an integral part of the recoil starter system. A recoil start, also known as a manual, or pull start, is a method of starting an internal combustion engine, usually on small machines, such as lawn mowers, chainsaws, ultralight aircraft, small outboard motors and portable engine-generators.

In your letter, you suggest that the pulley assembly and starter assembly be classified under subheading 8412.80.9000, Harmonized Tariff Schedule of the United States (HTSUS), which provides for other engines and motors, and parts thereof, not elsewhere specified, excluding motors for 8501.

Classification of merchandise under the HTSUS is governed by the General Rules of Interpretation (GRIs). GRI 1 provides that classification is determined first in accordance with the terms of the headings of the tariff and any relative section or chapter notes.

Legal Note 2(a) to Section XVI states, “Parts which are goods included in any of the headings of Chapter 84 or 85 (other than headings 84.09, 84.31, 84.48, 84.66, 84.73, 84.87, 85.03, 85.22, 85.29, 85.38 and 85.48) are in all cases to be classified in their respective headings...”

As per a telephone conversation held with your office, the pulley and recoil starter assemblies are imported separately. As a result, classification of the pulley and recoil assemblies in heading 8412,

HTSUS, is precluded, as each assembly is provided for elsewhere.

Therefore, in accordance with Note 2(a) to Section XVI, the applicable subheading for the pulley assembly will be 8483.50.9080, HTSUS, which provides for “Transmission shafts (including camshafts and crankshafts) and cranks; bearing housings, housed bearings and plain shaft bearings; gears and gearing; ball or roller screws; gearboxes and other speed changers including torque converters; flywheels and pulleys, including pulley blocks; clutches and shaft couplings (including universal joints); parts thereof: Flywheels and pulleys, including pulley blocks: Other: Other: Other”. The general rate of duty will be 2.8 percent ad valorem.

The applicable subheading for the recoil starter assembly will be 8511.90.6040, HTSUS, which provides for “Electrical ignition or starting equipment of a kind used for spark-ignition or compression-ignition internal combustion engines (for example, ignition magnetos, magneto-dYNAMOS, ignition coils, spark plugs and glow plugs, starter motors); generators (for example, dynamos, alternators) and cut-outs of a kind used in conjunction with such engines; parts thereof: Parts: Other: Other”. The rate of duty will be 2.5 percent ad valorem.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8483.50.9080, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8483.50.9080, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading. Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at [sandra.martinez@cbp.dhs.gov](mailto:sandra.martinez@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300891

October 30, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification

TARIFF NO.: 8525.80.3010; 8536.50.7000; 8537.10.9170; 8539.50.0010

Carl Mertz  
TP-Link USA Corp  
145 South State College Blvd  
Suite 400  
Brea, CA 92821

RE: The tariff classification of Smart Switches, Plugs, Bulbs, and Cameras from China

Dear Mr. Mertz:

In your letter dated October 1, 2018 you requested a tariff classification ruling.

The first group of items under consideration are identified as Smart Wi-Fi Controlled Switches, PNs HS200 and HS220, which are described as wall mounted electrical switches for controlling a single circuit. The HS200 is a standard single wiring configuration smart switch that features front facing dimming buttons and a main circuit button. The HS220 is a 3-way wiring configuration smart switch that features a single front facing main circuit button only. Based on the information provided, the HS220 is not a dimmable switch, however both smart switches are said to wirelessly connect to a local network in order to provide users with control of the circuit from their smart device application and programming with voice assistants such as Google Assistant and Amazon Alexa.

The second group of items under consideration are identified as Smart Wi-Fi Controlled Electrical Plugs and Power Strips, PNs HS100, HS107, and HS300 which are respectively described as single outlets, dual outlets, and power strips. On the front of the HS100 is a power on/off switch which allows users to manually control the connected appliance and a single electrical female socket output. The HS107 has two female sockets and a power switch for each which allows for two circuits to be connected and controlled. The HS300 provides for 6 outlets, each with a manual on/off button, 3 USB charging sockets, and a 3-prong grounded electrical cord. Each of the smart plugs are said to wirelessly connect to a local network in order to provide users with control of the plug, and by extension the electrical articles plugged into it, either manually or from their smart device application and/or programming with voice assistants such as Google Assistant and Amazon Alexa.

The third group of items under consideration are identified Smart Wi-Fi Controlled Light Bulbs, PNs KL110 and KL130, which are described as dimmable, color changing LED A19 style lamps with an E26 base. The subject lamps wirelessly connect a local network in order to provide users with control of the lamp from their smart device application and/or programming with voice assistants such as Google Assistant and Amazon Alexa.

The fourth group of items under consideration are identified as Security Cameras. There are two camera models submitted, the KC120 indoor camera and the KC200 outdoor camera. Both cameras transmit “real time” video to a location outside the camera, such as a smartphone application. The subject cameras do not contain any inbuilt recording capability; however, they are configurable to store video to a cloud based storage system.

The applicable subheading for the Smart Wi-Fi Controlled Switches, PNs HS200 and HS220, and the Smart Wi-Fi Controlled Electrical Plug, PN HS100 will be 8536.50.7000, Harmonized Tariff Schedule of the United States, (HTSUS,) which provides for “Electrical apparatus for switching or protecting electrical circuits..., other switches:..., other:, electronic AC switches consisting of optically coupled input and output circuits..., electronic switches, including temperature protected switches, consisting of a transistor and a logic chip (chip-on-chip technology); electromechanical snap-action switches for a current not exceeding 11 amps”. The rate of duty will be Free.

The applicable subheading for the Smart Wi-Fi Controlled Electrical Plugs and Power Strips, PNs HS107 and HS300, will be 8537.10.9170, HTSUS, which provides for “Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of 8535 or 8536, for electric control or the distribution of electricity...: For a voltage not exceeding 1,000 V: Other: Other: Other”. The general rate of duty will be 2.7 percent ad valorem.

The applicable subheading for the Smart Wi-Fi Controlled Light Bulbs, PNs KL110 and KL130, will be 8539.50.0010, HTSUS, which provides for “Electrical filament or discharge lamps...; Light-emitting diode (LED) lamps; Of a type specified in statistical note 8(a) to this chapter.” The rate of duty will be 2 percent ad valorem.

The applicable subheading for the Security Cameras, PNs KC120 and KC200, will be 8525.80.3010, HTSUS, which provides for “Transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; ...: Television cameras, digital cameras and video camera recorders: Television cameras: Other: Color”. The rate of duty will be 0.5 percent ad valorem.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974).

Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8536.50.7000, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.02, in addition to subheading 8536.50.7000, HTSUS, listed above.

Products of China classified under subheading 8525.80.3010 and 8537.10.9170, HTSUS, unless specifically excluded, are subject to the additional 10 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8525.80.3010 and 8537.10.9170, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N300891

October 30, 2018

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification

TARIFF NO.: 8525.80.3010; 8536.50.7000; 8537.10.9170; 8539.50.0010

Carl Mertz  
TP-Link USA Corp  
145 South State College Blvd  
Suite 400  
Brea, CA 92821

RE: The tariff classification of Smart Switches, Plugs, Bulbs, and Cameras from China

Dear Mr. Mertz:

In your letter dated October 1, 2018 you requested a tariff classification ruling.

The first group of items under consideration are identified as Smart Wi-Fi Controlled Switches, PNs HS200 and HS220, which are described as wall mounted electrical switches for controlling a single circuit. The HS200 is a standard single wiring configuration smart switch that features front facing dimming buttons and a main circuit button. The HS220 is a 3-way wiring configuration smart switch that features a single front facing main circuit button only. Based on the information provided, the HS220 is not a dimmable switch, however both smart switches are said to wirelessly connect to a local network in order to provide users with control of the circuit from their smart device application and programming with voice assistants such as Google Assistant and Amazon Alexa.

The second group of items under consideration are identified as Smart Wi-Fi Controlled Electrical Plugs and Power Strips, PNs HS100, HS107, and HS300 which are respectively described as single outlets, dual outlets, and power strips. On the front of the HS100 is a power on/off switch which allows users to manually control the connected appliance and a single electrical female socket output. The HS107 has two female sockets and a power switch for each which allows for two circuits to be connected and controlled. The HS300 provides for 6 outlets, each with a manual on/off button, 3 USB charging sockets, and a 3-prong grounded electrical cord. Each of the smart plugs are said to wirelessly connect to a local network in order to provide users with control of the plug, and by extension the electrical articles plugged into it, either manually or from their smart device application and/or programming with voice assistants such as Google Assistant and Amazon Alexa.

The third group of items under consideration are identified Smart Wi-Fi Controlled Light Bulbs, PNs KL110 and KL130, which are described as dimmable, color changing LED A19 style lamps with an E26 base. The subject lamps wirelessly connect a local network in order to provide users with control of the lamp from their smart device application and/or programming with voice assistants such as Google Assistant and Amazon Alexa.

The fourth group of items under consideration are identified as Security Cameras. There are two camera models submitted, the KC120 indoor camera and the KC200 outdoor camera. Both cameras transmit “real time” video to a location outside the camera, such as a smartphone application. The subject cameras do not contain any inbuilt recording capability; however, they are configurable to store video to a cloud based storage system.

The applicable subheading for the Smart Wi-Fi Controlled Switches, PNs HS200 and HS220, and the Smart Wi-Fi Controlled Electrical Plug, PN HS100 will be 8536.50.7000, Harmonized Tariff Schedule of the United States, (HTSUS,) which provides for “Electrical apparatus for switching or protecting electrical circuits..., other switches:..., other:, electronic AC switches consisting of optically coupled input and output circuits..., electronic switches, including temperature protected switches, consisting of a transistor and a logic chip (chip-on-chip technology); electromechanical snap-action switches for a current not exceeding 11 amps”. The rate of duty will be Free.

The applicable subheading for the Smart Wi-Fi Controlled Electrical Plugs and Power Strips, PNs HS107 and HS300, will be 8537.10.9170, HTSUS, which provides for “Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of 8535 or 8536, for electric control or the distribution of electricity...: For a voltage not exceeding 1,000 V: Other: Other: Other”. The general rate of duty will be 2.7 percent ad valorem.

The applicable subheading for the Smart Wi-Fi Controlled Light Bulbs, PNs KL110 and KL130, will be 8539.50.0010, HTSUS, which provides for “Electrical filament or discharge lamps...; Light-emitting diode (LED) lamps; Of a type specified in statistical note 8(a) to this chapter.” The rate of duty will be 2 percent ad valorem.

The applicable subheading for the Security Cameras, PNs KC120 and KC200, will be 8525.80.3010, HTSUS, which provides for “Transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; ...: Television cameras, digital cameras and video camera recorders: Television cameras: Other: Color”. The rate of duty will be 0.5 percent ad valorem.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974).

Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8536.50.7000, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.02, in addition to subheading 8536.50.7000, HTSUS, listed above.

Products of China classified under subheading 8525.80.3010 and 8537.10.9170, HTSUS, unless specifically excluded, are subject to the additional 10 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8525.80.3010 and 8537.10.9170, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N301269

November 16, 2018

CLA-2-84:OT:RR:NC:N1:104

CATEGORY: Classification

TARIFF NO.: 8479.89.9499; 9903.88.03

Mr. Harry Clark  
Orrick, Herrington & Sutcliffe LLP  
1152 15<sup>th</sup> Street N.W.  
Washington, DC 20005

RE: The tariff classification of Components of a Solar Tracker from China

Dear Mr. Clark::

In your letter dated October 19, 2018, on behalf of your client, NEXTracker Inc., you requested a tariff classification ruling.

The imported product called NX Tracker is a single axis solar tracker which tracks the sun's movements through the day and generates electricity using crystalline solar photovoltaic (CSPV) modules attached to the tracker. The CSPV modules are not being imported and are provided by the customer. There are two alternative power sources for the NX Tracker which is used for rotational power and communication. They are 1) a small solar panel supplied by NEXTracker or 2) a hard-wired solution provided by the customer. These power sources do not deliver any of its power on to the electricity grid.

The components for the NX Tracker consists of 1) Mechanical torque tubes 2) Bearing housing assemblies 3) Module mounting rail assemblies 4) Slew gear mount 5) Slew gear assembly 6) SPC 7) SPC mount and 8) DC motor. You state in the ruling letter that these components are being imported in a single bill of lading but packaged separately from one another and in bulk form. The NX Tracker will be imported disassembled and in an incomplete manner. The number of each imported component corresponds to the number necessary to assemble a NX Tracker for the customer. The only components of a completed NX Tracker not being imported consists of the piers, fasteners and dampers. The network controller unit and weather station will be imported later since they are not necessary for the operation of the NX Tracker to rotate. The CSPV panels installed on top of the NX Tracker will be installed by the customers and are not part of the importation or a product offered by NEXTracker.

Merchandise is classifiable under the Harmonized Tariff Schedule of the United States (HTSUS) in accordance with the General Rules of Interpretation (GRIs). GRI 1 states in part that for legal purposes, classification shall be determined according to the terms of the headings and any

relative section or chapter notes. GRI 2(a) extends the scope of the HTSUS headings to include unfinished parts, provided the unfinished parts have the essential character of the finished parts. GRI 2(a) further states that, "Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as entered, the incomplete or unfinished article has the essential character of the complete or finished article. It shall also include a reference to that article complete or finished (or failing to be classified as complete or finished by virtue of this rule), entered unassembled or disassembled". Under GRI 2(a), the factor or factors which determine essential character will vary with the merchandise. It may, for example, be determined by the nature of a component or components, their bulk, quantity, weight or value, or the role of a component or components in relation to the use of the good. It is the opinion of this office that the solar tracker components in their imported condition possess the essential character of a complete NX Tracker.

In your letter, you propose classifying the NX Tracker under subheading 8479.89.6500, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter, parts thereof: Other machines and mechanical appliances: Other: Electromechanical appliances with self-contained electric motor: Other". As justification for your position, you state that the NX Tracker, which incorporates a self-contained motor, is electromechanically operated. This office acknowledges the validity of your statement. However, subheading 8479.89.6500, HTSUS, does not encompass every assembly which includes an electric motor. The NX Tracker is not similar to the products listed in the tariff as being classifiable as "Electromechanical appliances with self-contained electric motor". Thus, in this office's opinion, classification in subheading 8479.89.6500, HTSUS, would not be appropriate.

The applicable subheading for the Components of a Solar Tracker will be 8479.89.9499, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Other: Other". The rate of duty will be 2.5 percent ad valorem.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8479.89.9499, HTSUS, unless specifically excluded, are subject to the additional 10 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8479.89.9499, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Patricia O'Donnell at [patricia.k.odonnell@cbp.dhs.gov](mailto:patricia.k.odonnell@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N301269

November 16, 2018

CLA-2-84:OT:RR:NC:N1:104

CATEGORY: Classification

TARIFF NO.: 8479.89.9499; 9903.88.03

Mr. Harry Clark  
Orrick, Herrington & Sutcliffe LLP  
1152 15<sup>th</sup> Street N.W.  
Washington, DC 20005

RE: The tariff classification of Components of a Solar Tracker from China

Dear Mr. Clark::

In your letter dated October 19, 2018, on behalf of your client, NEXTracker Inc., you requested a tariff classification ruling.

The imported product called NX Tracker is a single axis solar tracker which tracks the sun's movements through the day and generates electricity using crystalline solar photovoltaic (CSPV) modules attached to the tracker. The CSPV modules are not being imported and are provided by the customer. There are two alternative power sources for the NX Tracker which is used for rotational power and communication. They are 1) a small solar panel supplied by NEXTracker or 2) a hard-wired solution provided by the customer. These power sources do not deliver any of its power on to the electricity grid.

The components for the NX Tracker consists of 1) Mechanical torque tubes 2) Bearing housing assemblies 3) Module mounting rail assemblies 4) Slew gear mount 5) Slew gear assembly 6) SPC 7) SPC mount and 8) DC motor. You state in the ruling letter that these components are being imported in a single bill of lading but packaged separately from one another and in bulk form. The NX Tracker will be imported disassembled and in an incomplete manner. The number of each imported component corresponds to the number necessary to assemble a NX Tracker for the customer. The only components of a completed NX Tracker not being imported consists of the piers, fasteners and dampers. The network controller unit and weather station will be imported later since they are not necessary for the operation of the NX Tracker to rotate. The CSPV panels installed on top of the NX Tracker will be installed by the customers and are not part of the importation or a product offered by NEXTracker.

Merchandise is classifiable under the Harmonized Tariff Schedule of the United States (HTSUS) in accordance with the General Rules of Interpretation (GRIs). GRI 1 states in part that for legal purposes, classification shall be determined according to the terms of the headings and any

relative section or chapter notes. GRI 2(a) extends the scope of the HTSUS headings to include unfinished parts, provided the unfinished parts have the essential character of the finished parts. GRI 2(a) further states that, "Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as entered, the incomplete or unfinished article has the essential character of the complete or finished article. It shall also include a reference to that article complete or finished (or failing to be classified as complete or finished by virtue of this rule), entered unassembled or disassembled". Under GRI 2(a), the factor or factors which determine essential character will vary with the merchandise. It may, for example, be determined by the nature of a component or components, their bulk, quantity, weight or value, or the role of a component or components in relation to the use of the good. It is the opinion of this office that the solar tracker components in their imported condition possess the essential character of a complete NX Tracker.

In your letter, you propose classifying the NX Tracker under subheading 8479.89.6500, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter, parts thereof: Other machines and mechanical appliances: Other: Electromechanical appliances with self-contained electric motor: Other". As justification for your position, you state that the NX Tracker, which incorporates a self-contained motor, is electromechanically operated. This office acknowledges the validity of your statement. However, subheading 8479.89.6500, HTSUS, does not encompass every assembly which includes an electric motor. The NX Tracker is not similar to the products listed in the tariff as being classifiable as "Electromechanical appliances with self-contained electric motor". Thus, in this office's opinion, classification in subheading 8479.89.6500, HTSUS, would not be appropriate.

The applicable subheading for the Components of a Solar Tracker will be 8479.89.9499, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Other: Other". The rate of duty will be 2.5 percent ad valorem.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8479.89.9499, HTSUS, unless specifically excluded, are subject to the additional 10 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8479.89.9499, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Patricia O'Donnell at [patricia.k.odonnell@cbp.dhs.gov](mailto:patricia.k.odonnell@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N301597

November 20, 2018

CLA-2-85:OT:RR:NC:N4:415

CATEGORY: Classification

TARIFF NO.: 8516.60.4070; 9903.88.03

Ms. Marta Portillo  
HSNi  
1 HSN Drive  
St. Petersburg, FL 33729

RE: The tariff classification of an air fryer from China.

Dear Ms. Portillo:

In your letter dated October 26, 2018, you requested a tariff classification ruling on behalf of your subsidiary Synergy Housewares, LLC.

A sample was provided and will be returned separately.

The product under consideration is described as a “7.2 Quart 1700 watt XL air fryer.” This air fryer is an electric domestic appliance that utilizes high-speed air circulation technology to cook food. It features an adjustable 30-minute timer and temperature control up to 400 degrees Fahrenheit. It is intended to sit on a kitchen countertop.

Please refer to HQ 963678, dated September 11, 2000, which discusses the definition of an oven.

The applicable subheading for the “7.2 Quart 1700 watt XL air fryer” will be 8516.60.4070, Harmonized Tariff Schedule of the United States (HTSUS), which provides for: “[e]lectric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric flatirons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545; parts thereof: [o]ther ovens; cooking stoves, ranges, cooking plates, boiling rings, grillers and roasters: [c]ooking stoves, ranges and ovens: [o]ther: [p]ortable.” The column one, general rate of duty is Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided at <https://hts.usitc.gov/current>.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an

additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8516.60.40, HTSUS, unless specifically excluded, are subject to the additional 10 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8516.60.4070, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Kristopher Burton at [kristopher.burton@cbp.dhs.gov](mailto:kristopher.burton@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N301759

November 30, 2018

CLA-2-85:OT:RR:NC:N4:415

CATEGORY: Classification

TARIFF NO.: 8516.60.6000

Mr. Leonard L. Rosenberg  
Sandler, Travis & Rosenberg, P.A.  
1000 Northwest 57<sup>th</sup> Court, Suite 600  
Miami, FL 33126

RE: The tariff classification of the Rotimatic flatbread maker from Malaysia.

Dear Mr. Rosenberg:

In your letter dated November 13, 2018, you requested a tariff classification ruling on behalf of your client Zimplistic Inventions, LLC.

The product under consideration is described as the Rotimatic, which is a fully automated kitchen appliance that makes rotis, a type of round flatbread. It can be utilized to make other flatbreads as well. The device automatically measures, dispenses, mixes the ingredients, and kneads one dough ball at a time. Using built in technology it can mimic human judgment to adjust the proportion of flour and water in real time to create a perfect dough ball. Once a dough ball is made, it presses the dough into a flat roti and then roasts it. The thickness and softness can be adjusted as desired. The Rotimatic measures 16 inches by 16 inches by 18 inches and is intended to sit on a kitchen counter.

In your request you proposed that the correct classification for this product is 8516.60.40, Harmonized Tariff Schedule of the United States (HTSUS), which provides for: "[e]lectric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric flatirons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545; parts thereof: [o]ther ovens; cooking stoves, ranges, cooking plates, boiling rings, grillers and roasters; [c]ooking stoves, ranges and ovens." It is noted that in your request you incorrectly cited Headquarters ruling 086553, dated May 11, 1990, which ruled on an integrated telephone/facsimile machine/personal computer. The intended Headquarters ruling HQ 086533, dated May 15, 1990, does provide guidance on appropriately classifying this multifunction device by the principal function of the cooking component, though we disagree that this product would qualify as an oven. Please refer to HQ 963678, dated September 11, 2000, which discusses the definition of an oven. This ruling indicates the common definition of an oven is "[a]n enclosed compartment supplied with heat and used for cooking food and for heating or drying objects placed within." In reviewing the

company's website, [www.rotimatic.com](http://www.rotimatic.com), a video shows this product in operation. The cooking compartment is left open during operation and the flatbread is cooked by heated plates that also press it into shape. As the plates are what do the cooking, not an enclosed compartment, we believe subheading 8516.60.40 would not be appropriate for this appliance.

The applicable subheading for the Rotimatic flatbread maker will be 8516.60.6000, HTSUS, which provides for: [e]lectric instantaneous or storage water heaters and immersion heaters; electric space heating apparatus and soil heating apparatus; electrothermic hairdressing apparatus (for example, hair dryers, hair curlers, curling tong heaters) and hand dryers; electric flatirons; other electrothermic appliances of a kind used for domestic purposes; electric heating resistors, other than those of heading 8545; parts thereof: [o]ther ovens; cooking stoves, ranges, cooking plates, boiling rings, grillers and roasters: [o]ther." The column one, general rate of duty is 2.7 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Kristopher Burton at [kristopher.burton@cbp.dhs.gov](mailto:kristopher.burton@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N301862

December 11, 2018

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.:8517.62.0090

Michael J. Femal  
Much Shelist P.C.  
191 N. Wacker Dr. Suite 1800  
Chicago, IL 60004

RE: The tariff classification of asset tracking devices from China

Dear Mr. Femal:

In your letter dated November 19, 2018, you requested a tariff classification ruling on behalf of your client, Telular Corporation.

The first item concerned is referred to as the Falcon GXT5002C. This electronic device is an externally mounted asset management/tracking device. It is used to track/report various data elements from (generally) a tractor trailer. It operates on a long-lasting battery pack which is recharged from an integrated solar panel. It operates on an LTE cellular network. The Falcon GXT5002C provides relevant reporting, including on-road vs. on-rail profiling, and is configurable to each user's needs. Data can be requested from the GXT5002C on-demand. This device can be programmed over-the-air, allowing customers to update reporting frequency and behavior. The Falcon GXT5002C does not incorporate a GPS transceiver.

The second item concerned is referred to as the Falcon GXT5002. This electronic device is an externally mounted asset management/tracking device. It is used to track/report various data elements from (generally) a tractor trailer. It operates on a long-lasting battery pack which is recharged from an integrated solar panel. It is a custom built cellular, remote data collection device that provides accurate pin-point location information of assets and cargo status. The Falcon GXT5002 provides relevant reporting and is configurable to each user's needs. Data can be requested from the GXT5002 on-demand. This device can also be programmed over-the-air, allowing customers to update reporting frequency and behavior. The Falcon GXT5002 does not incorporate a GPS transceiver.

You proposed classification of both products under subheading 8517.12.0050, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Telephone sets, including telephones for cellular networks or for other wireless networks;...: Telephone sets, including telephones for cellular networks or for other wireless networks: Telephones for cellular networks

or for other wireless networks: Other radio telephones designed for the Public Cellular Radiotelecommunication Service.” Based on the information supplied the products concerned are not telephones. As such classification within subheading 8517.12.0050, HTSUS is inapplicable.

The applicable subheading for the Falcon GXT5002C and the Falcon GXT5002 will be 8517.62.0090, HTSUS, which provides for “Telephone sets...; other apparatus for the transmission or reception of voice, images or other data...: Other apparatus for transmission or reception of voice, images or other data...: Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” The general rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at [steven.pollichino@cbp.dhs.gov](mailto:steven.pollichino@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N302189

February 8, 2019

CLA-2-84:OT:RR:NC:N2:206

CATEGORY: Classification

TARIFF NO.: 8407.90.9010; 9903.88.02; 8409.91.9990; 9903.88.03

Terry Hall  
Arrow Engine Company  
2301 E. Independence Street  
Tulsa, OK 74110

RE: The tariff classification of engine assemblies from China

Dear Mr. Hall:

In your letter dated December 10, 2018, you requested a tariff classification ruling.

The items under consideration are Engine Assemblies for spark-ignition reciprocating internal combustion piston engines, model numbers A-32, A-42, A-62, and A-160, used in oil and gas field pumping, and auxiliary power applications. You state that at the time of importation these assemblies consist of an engine block, cylinder head, manifold, oil pan, crankshaft, camshaft, rods, pistons, valve train, valve cover, and a fan. They may also contain an alternator and starter. The following will be added in the United States, once imported: ignition systems (including spark plugs), fuel systems (including carburetor), air filtration system, exhaust system, instrumentation, catalytic controls, clutch or generator, mounting base and or housing.

You suggested classifying the engine assemblies with an alternator and starter and without an alternator and starter in heading 8409, Harmonized Tariff Schedule of the United States (HTSUS), as parts of spark ignition engines.

Classification of merchandise under the HTSUS is governed by the General Rules of Interpretation (GRIs) taken in order. GRI 1 provides that the classification is determined first in accordance with the terms of the headings and any relative section and chapter notes. GRI 2(a) states, "Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as entered, the incomplete or unfinished article has the essential character of the complete or finished article. It shall

also include a reference to that article complete or finished (or falling to be classified as complete or finished by virtue of this rule), entered unassembled or disassembled.”

The Explanatory Notes (ENs) to the Harmonized Commodity Description and Coding System, which represent the official interpretation of the tariff at the international level, facilitate classification under the HTSUS by offering guidance in understanding the scope of the headings and the GRIs. The ENs to heading 8407 state, “The characteristic feature of these engines is that they are equipped with sparking plugs fitted into the cylinder head and with electrical devices (such as magnetos, coils and contact breakers) synchronised with the motor, for supplying high tension current.”

This office agrees that the engine assemblies without an alternator and starter do not possess the essential character of the full engine. Thus, they cannot be classified as engines of heading 8407, HTSUS, pursuant to GRI 2(a). However, the engine assemblies with an alternator and starter have the essential character of a full engine and, as such, satisfy the requirements of GRI 2(a) and the ENs to heading 8407.

The applicable subheading for the Engine Assemblies without an alternator and starter will be 8409.91.9990, HTSUS, which provides for “Parts suitable for use solely or principally with the engines of heading 8407 or 8408: Other: Suitable for use solely or principally with spark-ignition internal combustion piston engines (including rotary engines): Other: Other: Other.” The general rate of duty will be 2.5% ad valorem.

The applicable subheading for the Engine Assemblies with an alternator and starter will be 8407.90.9010, HTSUS, which provides for “Spark-ignition reciprocating or rotary internal combustion piston engines: Other engines: Other: Gas (natural or LP) engines.” The general duty rate will be Free.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheadings 8407.90.9010 and 8409.91.9990, HTSUS, unless specifically excluded, are subject to the additional 25 and 10 percent ad valorem rate

of duty, respectively. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.02, in addition to subheading 8407.90.9010, HTSUS and 9903.88.03, in addition to subheading 8409.91.9990, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, please contact National Import Specialist Liana Alvarez at [liana.alvarez@cbp.dhs.gov](mailto:liana.alvarez@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N302707

March 18, 2019

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification; Origin

TARIFF NO.: 8501.31.2000

Thomas Keating  
Hodes Keating & Pilon  
134 North LaSalle Street  
Suite 1300  
Chicago, Illinois 60602

RE: The application of Section 301 remedies for electric motors from Mexico

Dear Mr. Keating:

In your letter dated January 9, 2019 you requested a determination on the applicability of certain trade remedies under Section 301 for an electric motor on behalf of your client, Johnson Electric North America. The subject motor was previously ruled upon in NY N301975. However, this office did not provide you with a decision on the application of the Section 301 duties, which you are requesting herewith.

The electric motor under consideration is identified as PN 1999-1031206 which you previously described as a brushed permanent magnet direct current motor with a peak output power of 42.4 watts. You stated the motor is manufactured in Mexico from components that originate in Mexico, the United States, China, and Japan. In NY N301975 we determined that the motor was classified under 8501.31.2000, Harmonized Tariff Schedule of the United States (HTSUS), and considered a product of Mexico by qualifying for preferential treatment under the North American Free Trade Agreement (NAFTA) because all components made the requisite tariff shift per General Note 12. The question remains, pursuant to this request, as to whether or not the Chinese components used in the production of the electric motor are substantially transformed for the purposes of determining the application of the trade remedies under 9903.88.01, HTSUS.

When considering a product that may be subject to antidumping, countervailing, or other safeguard measures, the substantial transformation analysis is applied to determine the country of origin. See 19 C.F.R. § 102.0; HQ 563205, dated June 28, 2006; see also Belcrest Linens v. United States, 741 F.2d 1368, 1370-71 (Fed. Cir. 1984) (finding that “the term ‘product of’ at the least includes manufactured articles of such country or area” and that substantial transformation “is essentially the test used...in determining whether an article is a manufacture of a given country”). In accordance with 19 C.F.R. § 102.0, the 102 marking rules are applicable for the

limited purposes of: “country of origin marking; determining the rate of duty and staging category applicable to originating textile and apparel products as set out in Section 2 (Tariff Elimination) of Annex 300–B (Textile and Apparel Goods); and determining the rate of duty and staging category applicable to an originating good as set out in Annex 302.2 (Tariff Elimination).” The 102 marking rules do however continue to be applicable for purposes of country of origin marking of NAFTA goods, as defined in 19 C.F.R. § 134.1.

In *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade (“CIT”) interpreted the meaning of “substantial transformation” as used in the Trade Agreements Act of 1979 (“TAA”) for purposes of government procurement. In *Energizer* the court reviewed the “name, character and use” test in determining whether a substantial transformation had occurred in determining the origin of a flashlight, and reviewed various court decisions involving substantial transformation determinations. The court noted, citing *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 226, 542 F. Supp. 1026, 1031, aff’d, 702 F.2d 1022 (Fed. Cir. 1983), that when “the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change.” *Energizer* at 1318. In addition, the court noted that “when the end-use was pre-determined at the time of importation, courts have generally not found a change in use.” *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, aff’d 989 F.2d 1201 (Fed. Cir. 1993). Furthermore, courts have considered the nature of the assembly, i.e., whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

Referencing HQ H300226, dated September 13, 2018, we would note that the electric motor under consideration therein was built in Mexico from three Chinese subassemblies where the production process was simple and lacking any significant complexity. Because the three Chinese components assembled in Mexico had a predetermined use and the production was simple, the motor in HQ H300226 did satisfy the NAFTA Marking Rules and was considered a product of Mexico but remained subject to the Section 301 trade remedies under 9903.88.01, HTSUS.

Contrary to the assembly circumstances in HQ H300226, the manufacturing processes conducted with the instant electric motor consists of component-level production of the subassemblies, the assembly of the motor, and the final testing, all of which are performed in Mexico. After a thorough review of the bill of materials and the production process described in NY N301975, we are of the opinion that the manufacturing operations that produce the motor substantially transforms the raw materials and various components into the electric motor. As such, the electric motor, PN 1999-1031206, is not subject to additional duties enumerated in U.S. Note 20(b), HTSUS, referenced in subheading 9903.88.01, HTSUS.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N302738

March 4, 2019

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 8517.62.0090

William Maloney  
Sandler, Travis & Rosenberg, P.A.  
551 5th Avenue, Suite 1100  
New York, NY 10176

RE: The tariff classification of an electronic wearable fitness tracker from China

Dear Mr. Maloney:

In your letter dated January 31, 2019, you requested a tariff classification ruling on behalf of your client, Garmin, Ltd.

The item concerned is referred to as the Garmin Forerunner® 645 Wearable Electronic Fitness Tracker. The Forerunner® 645 is a multifunctional electronic wearable device, which pairs its bi-directional open wireless Bluetooth technology with a smartphone, tablet or computer. The primary purpose of the web and mobile applications are storing and displaying longer term activity data and statistics, connecting users to a social community, and providing added value wellness functionality to Forerunner® 645 users. The Forerunner® 645 automatically syncs to Garmin's proprietary tool to save, plan, share, and connect with the user's community.

The Forerunner® 645 is worn on a person's wrist and designed to both manage data and to support personal fitness. The Bluetooth capability is essential to the use and operation of the device because the Forerunner® 645 has limited functionality until it has been paired and properly configured. The radio transceiver enables the Forerunner® 645 to communicate wirelessly with a paired, internet connected mobile device to display, manipulate, and store data via the use of executable wearable apps. Continued syncing allows for the full utilization of all product features and, importantly, the social networking connectivity.

Features of the device using wireless connectivity include:

- Garmin Pay™ contactless payment solution that lets the user make convenient payments through the NFC feature.
- Downloadable watch faces, data fields, widgets, workouts, courses and apps.
- Weather Updates.
- Garmin Connect™ Mobile-Automatically sends activity to the mobile app on a connected device.

- Smart Bluetooth Notifications (calls, messages, etc.).
- Music controls.
- Social media updates.

The applicable subheading for the Garmin Forerunner® 645 Wearable Electronic Fitness Tracker will be 8517.62.0090, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” The general rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at steven.pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N302738

March 4, 2019

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 8517.62.0090

William Maloney  
Sandler, Travis & Rosenberg, P.A.  
551 5th Avenue, Suite 1100  
New York, NY 10176

RE: The tariff classification of an electronic wearable fitness tracker from China

Dear Mr. Maloney:

In your letter dated January 31, 2019, you requested a tariff classification ruling on behalf of your client, Garmin, Ltd.

The item concerned is referred to as the Garmin Forerunner® 645 Wearable Electronic Fitness Tracker. The Forerunner® 645 is a multifunctional electronic wearable device, which pairs its bi-directional open wireless Bluetooth technology with a smartphone, tablet or computer. The primary purpose of the web and mobile applications are storing and displaying longer term activity data and statistics, connecting users to a social community, and providing added value wellness functionality to Forerunner® 645 users. The Forerunner® 645 automatically syncs to Garmin's proprietary tool to save, plan, share, and connect with the user's community.

The Forerunner® 645 is worn on a person's wrist and designed to both manage data and to support personal fitness. The Bluetooth capability is essential to the use and operation of the device because the Forerunner® 645 has limited functionality until it has been paired and properly configured. The radio transceiver enables the Forerunner® 645 to communicate wirelessly with a paired, internet connected mobile device to display, manipulate, and store data via the use of executable wearable apps. Continued syncing allows for the full utilization of all product features and, importantly, the social networking connectivity.

Features of the device using wireless connectivity include:

- Garmin Pay™ contactless payment solution that lets the user make convenient payments through the NFC feature.
- Downloadable watch faces, data fields, widgets, workouts, courses and apps.
- Weather Updates.
- Garmin Connect™ Mobile-Automatically sends activity to the mobile app on a connected device.

- Smart Bluetooth Notifications (calls, messages, etc.).
- Music controls.
- Social media updates.

The applicable subheading for the Garmin Forerunner® 645 Wearable Electronic Fitness Tracker will be 8517.62.0090, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” The general rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at steven.pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N303278

May 3, 2019

CLA-2-84:OT:RR:NC:1:104

CATEGORY: Classification

TARIFF NO.: 8479.89.6500; 8517.62.0090; 9032.89.6070; 9903.88.01

Ms. Sheri G. Lawson  
Wilson International Inc.  
160 Wales Avenue  
Suite 100  
Tonawanda, NY 14150

RE: The tariff classification of Lifebreath Heat and Energy Recovery Ventilators from Canada and Control Accessories from China

Dear Ms. Lawson:

In your letter dated March 4, 2019, on behalf of your client, Airia Brands Inc., you requested a tariff classification ruling.

Lifebreath Heat Recovery Ventilators (HRVs), model numbers RNC200 and RNC205, and Lifebreath Energy Recovery Ventilator (ERVs), model number 170ERVD, are mechanical ventilation systems used to provide balanced ventilation by providing two separate air paths. They are the combination of an exhaust system and a supply system in a single packaged solution. The exhaust system removes air from the building and the supply system adds outdoor air into the building. All HRVs transfer heat, reclaim energy that would be wasted in an exhaust air stream, and control excess humidity in the building by using dry outdoor air in the heating season to replace moist indoor air. During the heating season, the HRVs replace stale air with fresh air throughout the building helping to prevent moisture build-up, toxic mold and rot. The ERVs transfer heat and humidity, reclaim energy wasted in an exhaust air stream and minimizes costs associated with ventilation. The ERVs control excess humidity in the building by using the dry outdoor air in the heating season and transferring outdoor humidity in cooling seasons. The moisture in the air will move through the ERV from the high humidity airstream to the low humidity airstream providing fresh air into a building while exhausting an equal amount of stale air to the outside. Energy including moisture is transferred between the airstreams, thereby reducing the loads on the heating and cooling equipment.

The HRV and the ERV are self-contained products consisting of a steel cabinet. Inside the cabinet are two fans. One fan exhausts air from a building to outdoors and the other fan brings air from outdoors and supplies it to the building. The two airflows pass through a plate type air-to-air heat exchanger which is built into the product. The heat exchanger has no moving parts

and transfers heat or moisture through the surface of the heat exchanger plates. Air filters are internal and keep the heat exchanger plates clean and reduce the number of airborne particles from entering the building from the outdoors. The HRV and ERV contain no compressors, heating or cooling elements. They are controlled by small electrical circuit boards found in the HRV or the ERV and a wall control installed in the building. The control will turn the HRV or the ERV on and off and changes the speed of the fans. Power is provided through a standard electrical cord for 120 volts. The HRVs and the ERVs cannot be used without the controls since they do not contain any buttons or switches that allow them to be used separately.

There are a variety of control models which contain a variety of settings for the fan, standby settings, electronic dehumidistat and modes of operation. The control model numbers consist of BC02, BC03, BC04, and the generic models GBC02, GBC03, GBC04, DXLP02 and DXPL02 (generic model of DXLP02) that comes without the Lifebreath logo. The Lifebreath Digital Control 99-DXPL02 (generic model of DXLP02), Lifebreath Ventilation Control 99-BC02, and Lifebreath Ventilation Control 99-BC03 are described as controllers that function as dehumidistats used to regulate indoor humidity levels. Each controller senses indoor humidity levels and once the controller determines that humidity levels have risen above the adjustable set point, the controller will initiate high-speed ventilation. Ventilation will stop once the dehumidistat controller senses the humidity levels have been reduced.

The Lifebreath Wireless Repeater, model number 99-RX02, is used to extend the range of the 99-DET02 Wireless Timers. The repeater plugs directly into a 120V power outlet.

You have requested classifications for the following two scenarios: (1) the HRV or the ERV units alone and (2) the HRV or ERV packaged together with the controls, the timers and the repeaters.

General Rule of Interpretation (GRI) 1, HTSUSA, states in part that for legal purposes, classification shall be determined according to the terms of the headings and any relative section or chapter notes. Goods that are, *prima facie*, classifiable under two or more headings, are classifiable in accordance with GRI 3, HTSUSA. GRI 3(a) states in part that when two or more headings each refer to part only of the items in a set put up for retail sale, those headings are to be regarded as equally specific, even if one heading gives a more precise description of the good.

In scenario 2, the good consists of at least two different articles that are, *prima facie*, classifiable in different subheadings. It consists of articles put up together to carry out a specific activity (providing balanced ventilation). Finally, the articles are put up in a manner suitable for sale directly to users without repacking. Therefore, the good in question is within the term "goods put up in sets for retail sale." GRI 3(b) states in part that goods put up in sets for retail sale, which cannot be classified by reference to 3(a), are to be classified as if they consisted of the component which gives them their essential character. The factor or factors which determine essential character varies with the goods under consideration. Explanatory Note Rule 3(b)(VIII) lists factors such as the nature of the material or component, their bulk, quantity, weight or value and the role of a constituent material in relation to the use of the good. It is the opinion of this office that the essential character of this set is imparted by the HRV and ERV mechanical ventilation systems.

The applicable subheading for the Lifebreath Heat Recovery Ventilators and the Lifebreath Energy Recovery Ventilators when sold alone or together with the controls, timers and repeaters will be 8479.89.6500, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Electromechanical appliances with self-contained electric motor: Other”. The rate of duty will be 2.8 percent ad valorem.

You also request classifications for the separately imported controls, timers and repeaters.

The applicable subheading for the Lifebreath Digital Control 99-DXPL02 (generic model of DXLP02), the Lifebreath Ventilation Control 99-BCO2, and the Lifebreath Ventilation Control 99-BC03 will be 9032.89.6070, HTSUS, which provides for “Automatic regulating or controlling instruments and apparatus; parts and accessories thereof: Other instruments and apparatus: Other: Other: Process control instruments and apparatus: Other: Humidity control instruments”. The rate of duty will 1.7 percent ad valorem.

The applicable subheading for the repeaters will be 8517.62.0090, HTSUS, which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” The general rate of duty will be Free.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 9032.89.6070, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation of the controls, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 9032.89.6070, HTSUS, listed above.

Guidance in a situation where sets packaged for retail sale are involved is provided on the CBP website in “CBP Section 301 Trade Remedies Frequently Asked Questions”.<sup>1</sup> The answer to “How are the Section 301 duties assessed in respect to sets packaged for retail sale, which contain components covered by the Section 301 remedy,” reads, in pertinent part, as follows:

When importing goods put up in sets for retail sale (in accordance with General Rule of Interpretation 3) that contain articles subject to the Section 301 remedy, if the product that imparts the essential character to the set (i.e. the HTSUS provision under which the entire set is classified) is covered by the Section 301 remedy, then the entire set will be subject to the additional 25% duties.

If the HTSUS provision under which the entire set is classified is not covered by the Section 301 remedies, but the set contains components that are classified in a subheading covered by the 301 list, the 301 duties will not be assessed on the individual components.

Following this guidance, the sets of a HRV or ERV packaged together with the controls, repeater and timers, will not be subject to the Section 301 remedy as the HTSUS provision under which the entire set is classified is not covered by the Section 301 remedies.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

Your inquiry does not provide enough information for us to give a classification ruling on the Lifebreath Ventilation Control 99-BCO4 and control models GBC02, GBC03, and the GBC04. Please describe how each device functions. Do these devices control or modify humidity levels within a specific area? Do these devices initiate the operation of a ventilation apparatus based upon humidity levels? Do these devices have a component that measures or senses humidity levels? If so, identify the device’s internal mechanism that measures or senses humidity levels by name and explain how the mechanism operates.

In addition, your inquiry does not provide enough information for us to give a classification ruling on the timers, model numbers 99-DET01 and 99-DET02. Does the time switch have a clock or watch movement, or a synchronous motor? Is it valued over \$5 each? Indicate the timers’ country of origin.

When this information is available, you may wish to consider resubmission of your request. We are returning any related samples, exhibits, etc. If you decide to resubmit your request, please include all of the material that we have returned to you.

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<sup>1</sup>See <https://www.cbp.gov/trade/programs-administration/entry-summary/section-301-trade-remedies/faqs>

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Patricia O'Donnell at [patricia.k.odonnell@cbp.dhs.gov](mailto:patricia.k.odonnell@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N303338

March 20, 2019

CLA-2-94:OT:RR:NC:N4:433

CATEGORY: Classification; Country of Origin; Marking; Trade Agreement

TARIFF NO.: 9403.10.0040

Lisa Murrin  
Expeditors Tradewin LLC.  
3 Technology Drive  
Peabody, MA 01960

RE: The tariff classification, country of origin, marking, North American Free Trade Agreement (NAFTA), and applicability of Section 301 trade remedies of a computer server cabinet from Mexico. Correction to Ruling Number N302029.

Dear Ms. Murrin:

This replaces Ruling Number N302029, dated December 18, 2018, which contained an omission regarding the applicability of Section 301 trade remedies. A complete corrected ruling follows.

In your letter dated November 30, 2018, you requested a binding ruling for country of origin on behalf of your client, Foxconn. Illustrative literature and a product description were received.

Foxconn item, the “Computer Server Cabinet,” is a floor-standing moveable steel storage cabinet on four swivel castors designed to secure a computer server and hardware. The cabinet measures approximately 44” in length, 24” in width, and 80” in height.

The applicable subheading for the cabinet is 9403.10.0040, Harmonized Tariff Schedule of the United States, (HTSUS), which provides for “Other furniture and parts thereof: Metal furniture of a kind used in offices: Other.”

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

Foxconn outlines two scenarios wherein the cabinet is manufactured. In scenario 1, six vertical posts, a base subassembly, and a top subassembly of Chinese origin are welded together in Mexico to form the main computer server frame. In Mexico, the frame and welds are further polished, cleaned, painted, inspected and additional assembly of Chinese component parts (side

panels, castors, patch panels, clips, a busbar, and brackets) are performed by skilled technicians. The cabinet will then be imported into the United States.

In scenario 2, the base subassembly and top subassembly are of Chinese origin whereas the six vertical posts are of Mexican origin. In Mexico, additional assembly of the Chinese component parts (side panels, castors, patch panels, clips, a busbar, and brackets) are performed by skilled technicians. Welding, assembly, polishing, painting, cleaning and inspection occurs in Mexico. The cabinet will then be imported into the United States.

#### Country of Origin and Marking (Scenario 1 and 2)

Pursuant to 19 Code of Federal Regulations (CFR) 134.1(b), “country of origin” means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin.” Further, pursuant to 19 CFR 10.14(b) a substantial transformation occurs when, as a result of manufacturing processes, a new and different article emerges, having a distinctive name, character, or use.

However, for a good of a NAFTA country (Mexico, Canada), the NAFTA Marking Rules (set forth in 19 CFR 102) will determine the country of origin. Because the cabinet is manufactured in part in Mexico, a NAFTA country, the NAFTA origin marking rules will determine the country of origin.

Part 102.11(a)(3) of 19 CFR provides that for the purposes of determining the country of origin of imported goods other than textile and apparel products each foreign material incorporated in that good undergoes an applicable change in tariff classification set out in section 102.20 and satisfies any other applicable requirements of that section, and all other applicable requirements of these rules are satisfied.

Part 102.20 states that, for goods of heading 9403.10 - 9403.89 to be of Mexican origin, they must undergo

A change to subheading 9403.10 thru 9403.89 from any other subheading outside that group, except from subheading 9401.10 through 9403.89 and except from subheading 9401.90 or 9403.90, when that change is pursuant to General Rule of Interpretation (GRI) 2(a).

Based on the information provided, a change in tariff occurs for scenarios 1 and 2 as the material components undergo a substantial transformation to become a cabinet, taking on a new name, character, and identity. The country of origin is conferred in Mexico.

Part 134, of 19 CFR implements the country of origin marking requirements of 19 U.S.C. 1304. Unless excepted by law, every article of foreign origin imported into the United States shall be marked in a conspicuous place as legibly, indelibly, and permanently as the nature of the article (or container) will permit, in such a manner as to indicate to the ultimate purchaser in the United States the English name of the country of origin of the article. As a product of Mexico, the cabinet is to be marked accordingly.

## Trade Agreement – NAFTA (Scenario 1 and 2)

General Note 12(b), HTSUS, sets forth the criteria for determining whether a good is originating under the NAFTA. To be an “originating good” the material components must be transformed in the territory of Mexico pursuant to GN12(b)(ii)(A)(t), HTSUS, which states:

Chapter 94, Rule 4,

(A) A change to subheadings 9403.10 through 9403.89 from any other chapter;

or

(B) A change to subheadings 9403.10 through 9403.89 from subheading 9403.90, whether or not there is also a change from any other chapter, provided there is a regional value content of not less than:

- (1) 60 percent where the transaction value method is used, or
- (2) 50 percent where the net cost method is used.

In both scenarios the material components from China and Mexico are classifiable outside of Section XX (miscellaneous manufactured articles), and a change in tariff occurs in Mexico as a result of manufacturing, therefore, the cabinet is eligible for NAFTA preferential duty treatment. Furthermore, the cabinet is not subject to the Section 301 trade remedies as provided for under 9903.88.03, HTSUS.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, please contact National Import Specialist Dharmendra Lilia at [dharmendra.lilia@cbp.dhs.gov](mailto:dharmendra.lilia@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N305154

July 31, 2019

CLA-2 OT: RR: NC: N4:410

CATEGORY: Country of Origin

Paula Connelly  
Sandler, Travis & Rosenberg  
100 Trade Center Suite G-100  
Woburn, MA 01801

RE: The country of origin and section 301 trade remedy of the Robotic Vacuum Cleaner

Dear Ms. Connelly:

In your letter dated July 5, 2019, on behalf of your client iRobot, Corp., you requested a country of origin determination for purposes of Section 301 duties for the Roomba® “670 Series Robotic Vacuum Cleaner.”

The subject merchandise is a Roomba® “670 Series Robotic Vacuum Cleaner.” The Roomba® is a Wi-Fi connected vacuum robot used to clean floors. It features a 3-stage cleaning system allowing it to loosen, lift and suction dirt, dust and hair from hard floors and carpet. The set includes the Roomba® vacuum robot, a rechargeable battery, a docking station for recharging and a power cord. The Roomba® may also include an optional accessory known as a “virtua Wall®” which contains the robotic within a certain space. The Roomba® will be imported from Malaysia, packaged for retail sale.

The applicable subheading for the Roomba® “670 Series Robotic Vacuum Cleaner” will be 8508.11.0000, which provides for Vacuum cleaners; parts thereof: With self-contained electric motor: Of a power not exceeding 1,500 W and having a dust bag or other receptacle capacity not exceeding 20 l. The rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <http://www.usitc.gov/tata/hts/>.

You requested a determination of whether the merchandise is covered by additional ad valorem duties on certain Chinese imports that the United States Trade Representative (“USTR”) has imposed pursuant to its authority under Section 301(b) of the Trade Act of 1974 (“Section 301 measures”). As of the date of this ruling, USTR has published three lists of Chinese origin products covered by the Section 301 measures.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). See also “Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation” (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8508.11.00, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8508.11.00, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

In your letter, you state that the Roomba® vacuum robot consists of approximately one thousand components, many of which are first fabricated into module subassemblies manufactured in Malaysia. These modules will then be further fabricated into the Roomba® chassis and connected to and programmed with the Main Printed Circuit Board which contains all the required operational software, resulting in the finished Roomba®. The manufacturing process will include the production of four separate key module subassemblies in Malaysia. Each of these modules is a significant component of the finished Roomba®. The modules will consist of components of several origins, with the majority being Malaysia content. Three of the modules will be manufactured in China and shipped to Malaysia.

You describe the manufacturing process with pictures and slides as the follows.

### **Main Printed Circuit Board**

The main components include the Microcontroller, Power Supply, Motor Driver, Wi-Fi Antenna Module, Binocular Sensor, and supporting peripheral components. The bare board and all electrical components will be imported into Malaysia where the electrical components will be soldered onto the bare board. Six hundred electronic components are soldered onto the bare board. This process also includes extensive software programming and extensive testing done by experienced engineers.

### **Wheel Modules**

These Modules are located on opposite sides of the chassis and consist of Chinese origin Gear Motor Assembly and Malaysian origin Plastic Housing, Wiring harness and Wheels. This Module will be fabricated, which includes eight different steps and undergo extensive testing in Malaysia to ensure that the Module functions properly and communicates with the sensors and Main Printed Circuit Board.

### **Cliff Harness Module**

The Module consists of the Wire Harness, Cliff Sensors, and Bumper Switches. The fabrication process is as follows: the wire is assembled and soldered onto the printed circuit board hole. The bumper switches are connected to this assembly. The cliff sensors are connected to the optics and assembled onto the plastic housings. The completed module then undergoes testing to ensure that it functions properly, which includes a cliff sensor and bumper switch test, debugging and pre-calibration test.

### **Bin Module**

Bin Assembly consists of the Housing and Impeller/Fan of Malaysian origin and Filter and Motor of Chinese origin. The assembly process is described as the follows: The Bin Contact chip is attached to the motor bottom cover. The motor and screw are assembled onto the bin. The bin fan is assembled onto the motor bottom cover. The cable is then soldered to the motor. The fan balance test is conducted, and the fan top cover is assembled onto the unit. The motor module is assembled with screw and gear. The top and bottoms are attached to the unit. The blue filter screen is attached to the unit and the bin door is then assembled. Testing of the unit will be performed which includes the impeller rotation direction and airflow testing and the debugging. If the test results are acceptable, then the unit will move onto further production.

In addition to the above-mentioned four modules manufactured in Malaysia, all plastics used in the chassis and modules will be manufactured in Malaysia. It is stated that the plastic chassis is a significant component of the Roomba® as it provides support, structure and protection for all the intricate components within the unit.

There are three additional modules included which are of Chinese origin assembled in the Roomba®. They include the following:

### **Cleaning Head Assembly**

The Cleaning Head Assembly serves as the vehicle to pick up and transfer debris from the floor to the Bin. It also provides a secure place for the brushes to spin and collect the debris consistently and effectively. Consumers can access the brushes after a completed run by pulling two attached yellow tabs.

### **Light Touch Sensor-Assembly**

The Light Touch Sensor Assembly guides the Roomba® as it gently bumps into objects and communicates to the Roomba® whether there is any obstruction in the surrounding area. It also communicates the next direction for the Roomba®.

### **The Side Brush Assembly**

The Side Brush Assembly serves as an additional method of capturing large debris and sweeps it towards the Cleaning Head to be deposited. It allows for cleaning in corners that the Cleaning Head may not be able to reach. The assembly includes a motor which allows the brush to rotate and help capture additional debris.

The Roomba® set includes the following accessories of Chinese origin:

Battery - The 1800 lithium-ion battery acts as the power source for the Roomba®. It is charged within the Roomba® via two contact charging points that connect to the Dock. It connects to the PCBA board and sits in the Chassis. The battery is replaceable as needed.

Dock - The Dock uses a wall adapter to charge the battery via two charging contacts that connect with the Roomba®. The Dock includes a line cord that plugs into the side with the adapter.

Virtual Wall – This is an optional feature and not included in all models. Virtual Walls create an invisible boundary to enclose the robot in a certain space.

In your letter, you suggest that the country of origin of the Roomba's four key modules and the unit's final assembly is Malaysia. The key modules either assembled or substantially transformed in the Malaysian factory include Main Printed Circuit Board, Wheel Modules, Cliff Harness Module and Bin Module. We agree. These modules are fabricated into the chassis housing to create the complete Roomba® vacuum cleaner. The chassis houses and protects all components of the Roomba® vacuum cleaner. All the plastic outer housing for the chassis are produced in Malaysia. It is stated that the manufacturing process requires highly skilled technicians and workers and in addition to the engineering team. The engineer roles include Quality Engineer, Test Engineer, Mechanical Engineer and Industrial Engineer. The process also undergoes extensive inspection and testing at the Module level and upon completion of the robot.

Section 134.1(b), Customs Regulations (19 C.F.R. § 134.1(b)), defines "country of origin" as the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the "country of origin".

Based on the information submitted, the materials/components and subassemblies imported into Malaysia from China where they are manufactured into different subassemblies, which are ultimately assembled into the subject Roomba®.

It is of the opinion of this office that the processing performed in Malaysia with respect to Roomba® constitutes a substantial transformation of the imported materials/components into "products of" Malaysia. The manufacturing process in Malaysia transforms the Chinese originating components/materials to produce the finished product. It creates a new and different article of commerce with a distinct character and use that is not inherent in the components imported into Malaysia. Therefore, the "product of" requirement has been satisfied. For tariff purposes, we conclude that the country of origin for the Roomba® and accessories when imported together will be Malaysia.

You also state that the Roomba® vacuum robot packaged with the Chinese origin accessories of the rechargeable battery, dock station, power card and option virtual wall is a set put up for retail sale. We also agree.

The Roomba® “670 Series Robotic Vacuum Cleaner” meets the definition of “goods put up in sets for retail sale.” As per General Rule of Interpretation (GRI) 3(b), classification is determined by the component, or components taken together, which confer on the set as a whole its essential character. The Roomba® vacuum robot clearly provides the essential character of this kit.

Guidance in a situation where sets packaged for retail sale are involved is provided on the CBP website in “CBP Section 301 Trade Remedies Frequently Asked Questions”. The answer to “How are the Section 301 duties assessed in respect to sets packaged for retail sale, which contain components covered by the Section 301 remedy,” reads, in pertinent part, as follows:

When importing goods put up in sets for retail sale (in accordance with General Rule of Interpretation 3) that contain articles subject to the Section 301 remedy, if the product that imparts the essential character to the set (i.e., the HTSUS provision under which the entire set is classified) is covered by the Section 301 remedy, then the entire set will be subject to the additional 25% duties.

If the HTSUS provision under which the entire set is classified is not covered by the Section 301 remedies, but the set contains components that are classified in a subheading covered by the 301 list, the 301 duties will not be assessed on the individual components.

Following this guidance, the sets of a Roomba® vacuum robot packaged together with the a rechargeable battery, a docking station for recharging and a power cord, will not be subject to the Section 301 remedy as the HTSUS provision under which the entire set is classified is not covered by the Section 301 remedies.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 CFR Part 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Michael Chen at michael.w.chen@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N305154

July 31, 2019

CLA-2 OT: RR: NC: N4:410

CATEGORY: Country of Origin

Paula Connelly  
Sandler, Travis & Rosenberg  
100 Trade Center Suite G-100  
Woburn, MA 01801

RE: The country of origin and section 301 trade remedy of the Robotic Vacuum Cleaner

Dear Ms. Connelly:

In your letter dated July 5, 2019, on behalf of your client iRobot, Corp., you requested a country of origin determination for purposes of Section 301 duties for the Roomba® “670 Series Robotic Vacuum Cleaner.”

The subject merchandise is a Roomba® “670 Series Robotic Vacuum Cleaner.” The Roomba® is a Wi-Fi connected vacuum robot used to clean floors. It features a 3-stage cleaning system allowing it to loosen, lift and suction dirt, dust and hair from hard floors and carpet. The set includes the Roomba® vacuum robot, a rechargeable battery, a docking station for recharging and a power cord. The Roomba® may also include an optional accessory known as a “virtua Wall®” which contains the robotic within a certain space. The Roomba® will be imported from Malaysia, packaged for retail sale.

The applicable subheading for the Roomba® “670 Series Robotic Vacuum Cleaner” will be 8508.11.0000, which provides for Vacuum cleaners; parts thereof: With self-contained electric motor: Of a power not exceeding 1,500 W and having a dust bag or other receptacle capacity not exceeding 20 l. The rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <http://www.usitc.gov/tata/hts/>.

You requested a determination of whether the merchandise is covered by additional ad valorem duties on certain Chinese imports that the United States Trade Representative (“USTR”) has imposed pursuant to its authority under Section 301(b) of the Trade Act of 1974 (“Section 301 measures”). As of the date of this ruling, USTR has published three lists of Chinese origin products covered by the Section 301 measures.

Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). See also “Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation” (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b), U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8508.11.00, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8508.11.00, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

In your letter, you state that the Roomba® vacuum robot consists of approximately one thousand components, many of which are first fabricated into module subassemblies manufactured in Malaysia. These modules will then be further fabricated into the Roomba® chassis and connected to and programmed with the Main Printed Circuit Board which contains all the required operational software, resulting in the finished Roomba®. The manufacturing process will include the production of four separate key module subassemblies in Malaysia. Each of these modules is a significant component of the finished Roomba®. The modules will consist of components of several origins, with the majority being Malaysia content. Three of the modules will be manufactured in China and shipped to Malaysia.

You describe the manufacturing process with pictures and slides as the follows.

### **Main Printed Circuit Board**

The main components include the Microcontroller, Power Supply, Motor Driver, Wi-Fi Antenna Module, Binocular Sensor, and supporting peripheral components. The bare board and all electrical components will be imported into Malaysia where the electrical components will be soldered onto the bare board. Six hundred electronic components are soldered onto the bare board. This process also includes extensive software programming and extensive testing done by experienced engineers.

### **Wheel Modules**

These Modules are located on opposite sides of the chassis and consist of Chinese origin Gear Motor Assembly and Malaysian origin Plastic Housing, Wiring harness and Wheels. This Module will be fabricated, which includes eight different steps and undergo extensive testing in Malaysia to ensure that the Module functions properly and communicates with the sensors and Main Printed Circuit Board.

### **Cliff Harness Module**

The Module consists of the Wire Harness, Cliff Sensors, and Bumper Switches. The fabrication process is as follows: the wire is assembled and soldered onto the printed circuit board hole. The bumper switches are connected to this assembly. The cliff sensors are connected to the optics and assembled onto the plastic housings. The completed module then undergoes testing to ensure that it functions properly, which includes a cliff sensor and bumper switch test, debugging and pre-calibration test.

### **Bin Module**

Bin Assembly consists of the Housing and Impeller/Fan of Malaysian origin and Filter and Motor of Chinese origin. The assembly process is described as the follows: The Bin Contact chip is attached to the motor bottom cover. The motor and screw are assembled onto the bin. The bin fan is assembled onto the motor bottom cover. The cable is then soldered to the motor. The fan balance test is conducted, and the fan top cover is assembled onto the unit. The motor module is assembled with screw and gear. The top and bottoms are attached to the unit. The blue filter screen is attached to the unit and the bin door is then assembled. Testing of the unit will be performed which includes the impeller rotation direction and airflow testing and the debugging. If the test results are acceptable, then the unit will move onto further production.

In addition to the above-mentioned four modules manufactured in Malaysia, all plastics used in the chassis and modules will be manufactured in Malaysia. It is stated that the plastic chassis is a significant component of the Roomba® as it provides support, structure and protection for all the intricate components within the unit.

There are three additional modules included which are of Chinese origin assembled in the Roomba®. They include the following:

### **Cleaning Head Assembly**

The Cleaning Head Assembly serves as the vehicle to pick up and transfer debris from the floor to the Bin. It also provides a secure place for the brushes to spin and collect the debris consistently and effectively. Consumers can access the brushes after a completed run by pulling two attached yellow tabs.

### **Light Touch Sensor-Assembly**

The Light Touch Sensor Assembly guides the Roomba® as it gently bumps into objects and communicates to the Roomba® whether there is any obstruction in the surrounding area. It also communicates the next direction for the Roomba®.

### **The Side Brush Assembly**

The Side Brush Assembly serves as an additional method of capturing large debris and sweeps it towards the Cleaning Head to be deposited. It allows for cleaning in corners that the Cleaning Head may not be able to reach. The assembly includes a motor which allows the brush to rotate and help capture additional debris.

The Roomba® set includes the following accessories of Chinese origin:

Battery - The 1800 lithium-ion battery acts as the power source for the Roomba®. It is charged within the Roomba® via two contact charging points that connect to the Dock. It connects to the PCBA board and sits in the Chassis. The battery is replaceable as needed.

Dock - The Dock uses a wall adapter to charge the battery via two charging contacts that connect with the Roomba®. The Dock includes a line cord that plugs into the side with the adapter.

Virtual Wall – This is an optional feature and not included in all models. Virtual Walls create an invisible boundary to enclose the robot in a certain space.

In your letter, you suggest that the country of origin of the Roomba's four key modules and the unit's final assembly is Malaysia. The key modules either assembled or substantially transformed in the Malaysian factory include Main Printed Circuit Board, Wheel Modules, Cliff Harness Module and Bin Module. We agree. These modules are fabricated into the chassis housing to create the complete Roomba® vacuum cleaner. The chassis houses and protects all components of the Roomba® vacuum cleaner. All the plastic outer housing for the chassis are produced in Malaysia. It is stated that the manufacturing process requires highly skilled technicians and workers and in addition to the engineering team. The engineer roles include Quality Engineer, Test Engineer, Mechanical Engineer and Industrial Engineer. The process also undergoes extensive inspection and testing at the Module level and upon completion of the robot.

Section 134.1(b), Customs Regulations (19 C.F.R. § 134.1(b)), defines "country of origin" as the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the "country of origin".

Based on the information submitted, the materials/components and subassemblies imported into Malaysia from China where they are manufactured into different subassemblies, which are ultimately assembled into the subject Roomba®.

It is of the opinion of this office that the processing performed in Malaysia with respect to Roomba® constitutes a substantial transformation of the imported materials/components into "products of" Malaysia. The manufacturing process in Malaysia transforms the Chinese originating components/materials to produce the finished product. It creates a new and different article of commerce with a distinct character and use that is not inherent in the components imported into Malaysia. Therefore, the "product of" requirement has been satisfied. For tariff purposes, we conclude that the country of origin for the Roomba® and accessories when imported together will be Malaysia.

You also state that the Roomba® vacuum robot packaged with the Chinese origin accessories of the rechargeable battery, dock station, power card and option virtual wall is a set put up for retail sale. We also agree.

The Roomba® “670 Series Robotic Vacuum Cleaner” meets the definition of “goods put up in sets for retail sale.” As per General Rule of Interpretation (GRI) 3(b), classification is determined by the component, or components taken together, which confer on the set as a whole its essential character. The Roomba® vacuum robot clearly provides the essential character of this kit.

Guidance in a situation where sets packaged for retail sale are involved is provided on the CBP website in “CBP Section 301 Trade Remedies Frequently Asked Questions”. The answer to “How are the Section 301 duties assessed in respect to sets packaged for retail sale, which contain components covered by the Section 301 remedy,” reads, in pertinent part, as follows:

When importing goods put up in sets for retail sale (in accordance with General Rule of Interpretation 3) that contain articles subject to the Section 301 remedy, if the product that imparts the essential character to the set (i.e., the HTSUS provision under which the entire set is classified) is covered by the Section 301 remedy, then the entire set will be subject to the additional 25% duties.

If the HTSUS provision under which the entire set is classified is not covered by the Section 301 remedies, but the set contains components that are classified in a subheading covered by the 301 list, the 301 duties will not be assessed on the individual components.

Following this guidance, the sets of a Roomba® vacuum robot packaged together with the a rechargeable battery, a docking station for recharging and a power cord, will not be subject to the Section 301 remedy as the HTSUS provision under which the entire set is classified is not covered by the Section 301 remedies.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 CFR Part 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Michael Chen at michael.w.chen@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N305251

August 1, 2019

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Origin

Joseph Spraragen  
Grunfeld, Desiderio, Lebowitz, Silverman, Klestadt LLP  
599 Lexington Avenue, Floor 36  
New York, NY 10022-7648

RE: The country of origin of a stepper motor

Dear Mr. Sprargen:

In your letter dated July 9, 2019, on behalf of Lin Engineering, Inc., you requested a ruling on the country of origin and application of Section 301 additional duties for a stepper motor.

The merchandise under consideration is identified as an electric stepper motor, which you describe as a brushless, synchronous electric motor that converts digital pulses into mechanical shaft rotation. The stepper motor components consist of a stator, a rotor, a pulley, end caps, a shaft, a bearing, various hardware, wire, connectors and insulators.

In your request you provide three assembly scenarios for the various components, discussed hereafter, and assert that in each scenario the stepper motor produced is not subject to Section 301 measures for products of China because in each scenario the Chinese components undergo a substantial transformation as a result of the assembly process, which is detailed hereafter. We disagree in part.

In the first scenario, you state the stator and the rotor are manufactured in Japan by stamping the steel slits from coils that are then pressed into a stator and rotor stack. The balance of the stepper motor components (the pulley, the bearing, the shaft, the end caps, etc.) are said to be sourced from China. The assembly of the stepper motor components into a functional motor is performed in China through operations such as the machining the stator and rotor, painting, winding of the wire, affixing the shaft and bearing onto the rotor, soldering the wire onto the connector board, screwing the housing and endcaps together, etc.

In the second scenario, you state the stator and the rotor are manufactured in China by stamping the steel slits from coils that are then pressed into a stator and rotor stack. The wire is sourced from Taiwan and the bearing from Thailand. The balance of the stepper motor components (the pulley, the shaft, the end caps, hardware, etc.) are said to be sourced from Vietnam. The assembly of the stepper motor components into a functional motor is performed in Vietnam through operations such as the machining the stator and rotor, painting, winding of the wire,

affixing the shaft and bearing onto the rotor, soldering the wire onto the connector board, screwing the housing and endcaps together, etc.

In the third scenario provided, you state the stator and the rotor are manufactured in Vietnam by stamping the steel slits from coils that are then pressed into a stator and rotor stack. The wire, the pulley, the shaft, the bearing, and the hardware is sourced from China. The balance of the stepper motor components (the end caps, insulators, etc.) are said to be sourced from Vietnam. The assembly of the stepper motor components into a functional motor is performed in Vietnam through operations such as the machining the stator and rotor, painting, winding of the wire, affixing the shaft and bearing onto the rotor, soldering the wire onto the connector board, screwing the housing and endcaps together, etc.

With regard to your request for the appropriate country of origin of the stepper motor, 19 C.F.R. § 134.1(b) provides in pertinent part as follows:

Country of origin means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of this part;

The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character or use, different from that possessed by the article prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff'd, 989 F.2d 1201 (Fed. Cir. 1993).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, all factors such as the components used to create the product and manufacturing processes that these components undergo are considered in order to determine whether a product with a new name, character and use has been produced. No one factor is decisive, and assembly operations that are minimal will generally not result in a substantial transformation.

In our view, the stator and rotor impart the essence of the finished stepper motor. Based on the provided description of the assembly operations, the stator and rotor are not substantially changed by the addition of the remaining motor components nor are the assembly operations complex enough so as to transform the stator and rotor into a new article. Therefore, it is the opinion of this office that the stepper motor described in the first scenario is country of origin Japan and the third scenario is country of origin Vietnam, neither of which are subject to Section 301 trade remedies. However, in the second scenario the country of origin of the stepper motor is China and is subject to the Section 301 trade remedies.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at [karl.moosbrugger@cbp.dhs.gov](mailto:karl.moosbrugger@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N305338

August 14, 2019

CLA-2-84:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8414.59.6540, 9903.88.03

Mr. Aaron Marx  
Crowell & Moring, LLP  
1001 Pennsylvania Ave NW  
Washington DC 20004

RE: The tariff classification of an Evaporator Brushless Motor Assembly from China,  
Vietnam, Germany or Brazil

Dear Mr. Marx:

In your letter dated June 17, 2019, you requested a tariff classification ruling on behalf of your client, Valeo North America Inc. of Troy, Michigan.

The merchandise at issue is described as an evaporator brushless motor assembly, part number T88168A. The assembly is used in both HVAC units and battery cooling units of passenger motor vehicles. The assembly consists of a centrifugal blower wheel or fan, which circulates air flow, a fan motor with a defrost harness pigtails, a plastic housing that secures and insulates the motor and a clip cover that closes and seals the defrost harness pigtails. When the assembly is connected to the HVAC unit, the motor powered blower wheel or fan circulates airflow through the HVAC system and when connected to a battery cooling unit, the motor powered blower wheel or fan circulates conditioned air drawn from the inside of a vehicle's cabin into a battery pack.

In your letter you suggest that the evaporator brushless motor assembly be classified under subheading 8415.90.8045, Harmonized Tariff Schedule of the United States, HTSUS, which provides for Air conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated; parts thereof: Other: Other: Of automotive air conditioners. This office disagrees, as the evaporator brushless motor assembly can be used within a HVAC unit or a battery cooling unit of a motor vehicle.

Furthermore, classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according

to the terms of the headings of the tariff schedule and any relative Section or Chapter Notes.

“Parts” are classified in accordance with Note 2 to Section XVI which states that, subject to certain exclusions found in Note 1 to Section XVI, Note 1 to Chapter 84 and Note 1 to Chapter 85, parts of machines (not being parts of the articles of heading 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

- (a) Parts which are goods included in any of the headings of chapters 84 and 85 (other than headings 8409, 8431, 8448, 8466, 8473, 8487, 8503, 8522, 8529, 8538 and 8548) are in all cases to be classified in their respective headings...
- (b) Other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) are to be classified with the machines of that kind or in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate. However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517;
- (c) All other parts are to be classified in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate or, failing that, in heading 8487 or 8548.

In this instance, the principal function of the assembly is to circulate air, which is functionality completed by the centrifugal fan. Fans that circulate air are specifically provided for in HTSUS heading 8414.

Therefore, in accordance with Note 2(a) to Section XVI, the applicable subheading for the evaporator brushless motor assembly, part number T88168A, will be 8414.59.6540, HTSUS, which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; parts thereof: Fans: Other: Other: Other: Suitable for use with motor vehicles. The rate of duty is 2.3 percent ad valorem.

It is noted that the evaporator brushless motor assembly, part number T88168A, is from various countries to include China. Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note

20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). See also “Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation” (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b),

U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8414.59.6540, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8414.59.6540, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

Heading 9902, HTSUS, deals with a wide variety of goods which have a temporary reduction in their rate of duty by virtue of legislative action. Subheading 9902.15.56, HTSUS, provides for blower subassemblies, each consisting of an electric A/C or D/C motor with an output wattage over 18.5 W but not exceeding 38.5W, a metal or plastic blower wheel and a base plate, designed to be incorporated in ceiling fans for permanent installation of subheading 8414.51.30 or in heating units combining a heater, fan and lights for permanent installation, of subheading 8516.29.00 (provided for in subheading 8414.59.65). For classification to be proper within this provision of the Nomenclature, the specific prerequisites outlined in subheading 9902.15.56 must be met.

The subject evaporator brushless motor assembly does not meet the requirements of subheading 9902.15.56, HTSUS, as it is not designed to be incorporated in ceiling fans or heating units combining a heater, fan and lights for permanent installation, of subheading 8516.29.00. As such, the evaporator brushless motor assembly is not entitled to beneficial duty treatment under HTSUS subheading 9902.15.56.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N305338

August 14, 2019

CLA-2-84:OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8414.59.6540, 9903.88.03

Mr. Aaron Marx  
Crowell & Moring, LLP  
1001 Pennsylvania Ave NW  
Washington DC 20004

RE: The tariff classification of an Evaporator Brushless Motor Assembly from China,  
Vietnam, Germany or Brazil

Dear Mr. Marx:

In your letter dated June 17, 2019, you requested a tariff classification ruling on behalf of your client, Valeo North America Inc. of Troy, Michigan.

The merchandise at issue is described as an evaporator brushless motor assembly, part number T88168A. The assembly is used in both HVAC units and battery cooling units of passenger motor vehicles. The assembly consists of a centrifugal blower wheel or fan, which circulates air flow, a fan motor with a defrost harness pigtails, a plastic housing that secures and insulates the motor and a clip cover that closes and seals the defrost harness pigtails. When the assembly is connected to the HVAC unit, the motor powered blower wheel or fan circulates airflow through the HVAC system and when connected to a battery cooling unit, the motor powered blower wheel or fan circulates conditioned air drawn from the inside of a vehicle's cabin into a battery pack.

In your letter you suggest that the evaporator brushless motor assembly be classified under subheading 8415.90.8045, Harmonized Tariff Schedule of the United States, HTSUS, which provides for Air conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated; parts thereof: Other: Other: Of automotive air conditioners. This office disagrees, as the evaporator brushless motor assembly can be used within a HVAC unit or a battery cooling unit of a motor vehicle.

Furthermore, classification under the HTSUS is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according

to the terms of the headings of the tariff schedule and any relative Section or Chapter Notes.

“Parts” are classified in accordance with Note 2 to Section XVI which states that, subject to certain exclusions found in Note 1 to Section XVI, Note 1 to Chapter 84 and Note 1 to Chapter 85, parts of machines (not being parts of the articles of heading 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

- (a) Parts which are goods included in any of the headings of chapters 84 and 85 (other than headings 8409, 8431, 8448, 8466, 8473, 8487, 8503, 8522, 8529, 8538 and 8548) are in all cases to be classified in their respective headings...
- (b) Other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) are to be classified with the machines of that kind or in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate. However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517;
- (c) All other parts are to be classified in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate or, failing that, in heading 8487 or 8548.

In this instance, the principal function of the assembly is to circulate air, which is functionality completed by the centrifugal fan. Fans that circulate air are specifically provided for in HTSUS heading 8414.

Therefore, in accordance with Note 2(a) to Section XVI, the applicable subheading for the evaporator brushless motor assembly, part number T88168A, will be 8414.59.6540, HTSUS, which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; parts thereof: Fans: Other: Other: Other: Suitable for use with motor vehicles. The rate of duty is 2.3 percent ad valorem.

It is noted that the evaporator brushless motor assembly, part number T88168A, is from various countries to include China. Effective July 6, 2018, the Office of the United States Trade Representative (USTR) imposed an additional tariff on certain products of China classified in the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(b), HTSUS. The USTR imposed additional tariffs, effective August 23, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note 20(d), HTSUS. Subsequently, the USTR imposed further tariffs, effective September 24, 2018, on products classified under the subheadings enumerated in Section XXII, Chapter 99, Subchapter III U.S. Note

20(f) and U.S. Note 20(g), HTSUS. For additional information, please see the relevant Federal Register notices dated June 20, 2018 (83 F.R. 28710), August 16, 2018 (83 F.R. 40823), and September 21, 2018 (83 F.R. 47974). See also “Notice of Action and Request for Public Comment Concerning Proposed Determination of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation” (June 20, 2018, 83 F.R. 28710). Products of China that are provided for in subheading 9903.88.01, 9903.88.02, 9903.88.03, or 9903.88.04 and classified in one of the subheadings enumerated in U.S. Note 20(b),

U.S. Note 20(d), U.S. Note 20(f) or U.S. Note 20(g) to subchapter III shall continue to be subject to antidumping, countervailing, or other duties, fees and charges that apply to such products, as well as to those imposed by the aforementioned Chapter 99 subheadings.

Products of China classified under subheading 8414.59.6540, HTSUS, unless specifically excluded, are subject to the additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8414.59.6540, HTSUS, listed above.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

Heading 9902, HTSUS, deals with a wide variety of goods which have a temporary reduction in their rate of duty by virtue of legislative action. Subheading 9902.15.56, HTSUS, provides for blower subassemblies, each consisting of an electric A/C or D/C motor with an output wattage over 18.5 W but not exceeding 38.5W, a metal or plastic blower wheel and a base plate, designed to be incorporated in ceiling fans for permanent installation of subheading 8414.51.30 or in heating units combining a heater, fan and lights for permanent installation, of subheading 8516.29.00 (provided for in subheading 8414.59.65). For classification to be proper within this provision of the Nomenclature, the specific prerequisites outlined in subheading 9902.15.56 must be met.

The subject evaporator brushless motor assembly does not meet the requirements of subheading 9902.15.56, HTSUS, as it is not designed to be incorporated in ceiling fans or heating units combining a heater, fan and lights for permanent installation, of subheading 8516.29.00. As such, the evaporator brushless motor assembly is not entitled to beneficial duty treatment under HTSUS subheading 9902.15.56.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N306132

September 24, 2019

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 9405.20.8010, 9903.88.03, 8518.22.0000, 9903.88.15

Douglas Lipski  
IKEA Purchasing Inc.  
3200 Horizon Drive, Suite 120  
King of Prussia, PA 19406

RE: The tariff classification of a Wi-Fi enabled speaker/lamp combo and a Wi-Fi enabled bookshelf speaker from China

Dear Mr. Lipski:

In your letter dated September 6, 2019, you requested a tariff classification ruling.

The items concerned are referred to as the SYMFONISK lamp (model # 00464617), and the SYMFONISK bookshelf speaker (model # 00357561).

The SYMFONISK lamp is a combination speaker and lamp. It consists of the SYMFONISK speaker within the base of a table lamp. The SYMFONISK lamp measures 9" x 9" x 16". It incorporates a glass shade, a polycarbonate/ABS plastic body along with aluminum knobs with a 100% polyester textile wrapped around the body of the speaker. The lamp serves as a lighting function for the room in addition to providing streaming music sounds from the speaker.

The SYMFONISK bookshelf speaker consists of the SYMFONISK speaker within a rectangular shaped housing that can sit on a flat surface, or be mounted to a wall vertically or horizontally. When mounted horizontally the speaker housing creates a shelf like structure upon which small items can be placed. The bookshelf speaker measures 4 inches x 6 inches x 12 inches. It has an ABS plastic base, a control panel with a synthetic rubber cover, and a 100% polyester textile front.

The SYMFONISK speakers are Wi-Fi enabled speakers that are controlled in conjunction with the SONOS app. The SYMFONISK supports playback of stored digital media files over the local-LAN network when set up using the Sonos Controller Desktop or mobile application, and connects to a home Wi-Fi network or existing Sonos Mesh network.

You propose that both the SYMFONISK lamp (model # 00464617) and SYMFONISK bookshelf speaker (model # 00357561) should be classified as a sound reproducing apparatus under

subheading 8519.89.3000, Harmonized Tariff Schedule of the United States (HTSUS). Based on the information submitted, the SYMFONISK speakers do not have the ability to reproduce sound from internal memory or from media of heading 8523, HTSUS. Therefore, classification in heading 8519, HTSUS, is not applicable.

From the information and the pictures provided within your ruling request and from the product website, the SYMFONISK lamp (model # 00464617) serves equally as loudspeaker and lamp. Both features would equally attract the interest of a consumer. CBP would consider this product to be a composite good that has no one component imparting the essential character. As such, the SYMFONISK lamp will be classified in the heading which occurs last in numerical order among those which equally merit consideration, GRI 3(c) noted.

The applicable subheading for the SYMFONISK lamp (model # 00464617) will be 9405.20.8010, HTSUS, which provides for “Lamps and lighting fittings...not elsewhere specified or included...Electric table, desk, bedside or floor-standing lamps: Other: Household.” The general rate of duty will be 3.9 percent ad valorem.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 9405.20.8010, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 9405.20.8010, HTSUS, listed above.

The applicable subheading for the SYMFONISK bookshelf speaker (model # 00357561) will be 8518.22.0000, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Microphones and stands therefor; loudspeakers, whether or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets; parts thereof: Loudspeakers, whether or not mounted in their enclosures: Multiple loudspeakers, mounted in the same enclosure.” The general rate of duty will be Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8518.22.0000, HTSUS, unless specifically excluded, are subject to an additional 15 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.15, in addition to subheading 8518.22.0000, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at Steven.Pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N306161

October 4, 2019

CLA-2-85:OT:RR:NC:N1:102

CATEGORY: Origin

Ms. Maureen Thorson  
Wiley Rein LLP  
1776 K Street NW  
Washington, D.C. 20006

RE: The country of origin and application of Section 301 remedies of battery packs

Dear Mr. Thorson:

In your letter dated September 9, 2019 you requested a country of origin ruling on behalf of your client, Inventus Power.

The items under consideration are rectangular shaped battery packs used with mobile medical carts. Each battery pack includes a communications board assembly, wiring, a wiring harness, fasteners, a plastic housing, lithium-ion cells and a main board assembly that runs software and coordinates and monitors the electric flow between lithium-ion cells and the medical cart. The lithium-ion cells store and provide power to the medical cart.

In your request, you describe the manufacturing process for the subject battery packs and suggest the country of origin is Mexico for the battery packs. Furthermore, you suggest that the battery packs are not subject to the application of the Section 301 measures for products of China because the Chinese components undergo a substantial transformation as a result of the assembly process performed in Mexico that is discussed hereafter.

The manufacturing process of each battery pack consists of 48, 56 or 64 lithium-ion battery cells depending on the configuration of the battery pack, a main board assembly and a communication board assembly from China being combined with various other components in Mexico.

The production of each battery pack begins in China by affixing more than 700 individual electronic components to a raw printed circuit board, creating the main board assembly. Afterwards, two data connector components and approximately 10 electronic components are mounted onto a printed circuit board to produce the communication board assembly. The communication board assembly and the main board assembly are then sent to Mexico. You mention that at this time the main board and communication board assemblies are sourced from China, but in the future these items could be sourced from an alternate country.

In Mexico, brass terminals, which are of Mexican or U.S. origin, are screwed into the plastic

housing of the battery pack. The communications board assembly is then screwed onto the underside of the top housing. Subsequently, the main board assembly is screwed into the top housing and then a communications cable that links the communications board assembly with the main board assembly is attached.

The battery cells, which are of Chinese origin, are then connected to each other. The process continues with paper insulating washers and Chinese origin nickel contact strips being attached to the cells. The insulating paper washers are also used to separate groups of cells. The Mexican produced wires and wiring harnesses are then soldered to the full group of cells. The wire connection points are sealed with insulation tape and Chinese originating thermistors are then installed with the wires and wiring harnesses. Afterwards, the connected battery cells are inserted into the Mexican originating bottom housing and a Mexican originating separator is then laid on top of the battery cells. The wiring harness is then connected to the main board assembly and the top housing is screwed to the bottom housing. Each battery pack undergoes testing.

With regard to your request for the appropriate country of origin of the battery pack, 19 C.F.R. § 134.1(b) provides in pertinent part as follows:

Country of origin means the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the “country of origin” within the meaning of this part;

Since Mexico is a NAFTA country, the NAFTA Marking Rules must be applied in determining the country of origin of the subject battery pack for marking purposes.

Part 102, Customs and Border Protection Regulations (19 C.F.R. Part 102), sets forth the NAFTA Marking Rules. Section 102.11 provides a required hierarchy for determining the country of origin of a good for marking purposes. See 19 C.F.R. § 102.11. Applied in sequential order, the required hierarchy establishes that the country of origin of a good is the country in which:

- (a)(1) The good is wholly obtained or produced;
- (a)(2) The good is produced exclusively from domestic materials; or
- (a)(3) Each foreign material incorporated in that good undergoes an applicable change in tariff classification set out in Section 102.20 and satisfies any other applicable requirements of that section, and all other applicable requirements of these rules are satisfied.

Sections 102.11(a)(1) and 102.11(a)(2) do not apply to the facts presented in this case because the battery pack is neither wholly obtained nor produced exclusively from “domestic” materials. Because the analysis of sections 102.11(a)(1) and 102.11(a)(2) does not yield a country of origin determination, we look to section 102.11(a)(3). “Foreign material” is defined in 19 C.F.R. § 102.1(e) as “a material whose country of origin as determined under these rules is not the same country as the country in which the good is produced.”

In this case, the battery packs are classified under subheading 8507.60.0020, Harmonized Tariff Schedule of the United States (HTSUS). The applicable rule for subheading 8507.60.0020, HTSUS, in section 102.20 requires:

A change to subheading 8507.10 through 8507.80 from any other subheading, including another subheading within that group, except for a change to subheading 8507.80 from subheading 8507.50 or 8507.60.

In this instance, the foreign materials, which are imported into Mexico from China and the U.S., are all classified from any other subheading, including another subheading within that group. Since the battery packs are classified under subheading 8507.60.00, HTSUS, and the foreign materials undergo an applicable change in tariff classification as set out in 19 C.F.R. § 102.20, the battery packs in question qualify to be marked as a good of Mexico.

Nonetheless, while the NAFTA marking rules contained in 19 C.F.R. Part 102 will determine the country of origin for marking purposes, the substantial transformation test will determine the country of origin for purposes of the Section 301 measures. See, e.g., Headquarters Ruling Letter (“HQ”) H301619, dated November 6, 2018.

The test for determining whether a substantial transformation will occur is whether an article emerges from a process with a new name, character and use, different from that possessed by the article prior to processing. See *Texas Instruments Inc. v. United States*, 69 C.C.P.A. 151 (1982). This determination is based on the totality of the evidence. See *National Hand Tool Corp. v. United States*, 16 C.I.T. 308 (1992), aff’d, 989 F.2d 1201 (Fed. Cir. 1993).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, all factors such as the components used to create the product and the manufacturing processes that these components undergo are considered in order to determine whether a product with a new name, character and use has been produced. No one factor is decisive, and assembly operations that are minimal will generally not result in a substantial transformation.

In our view, the battery cells, which store and provide power, impart the essence of the finished battery packs. The battery cells are not substantially changed by the addition of the Chinese, Mexican or U.S materials. Furthermore, the assembly operations performed in Mexico do not render a new and different article. Therefore, since the battery cells are of Chinese origin and no substantial transformation takes place, the country of origin of the battery packs for the purpose of Section 301 measures is China.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8507.60.0020, HTSUS, unless specifically excluded, are subject to an additional 15 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.15, in addition to subheading 8507.60.0020, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading.

For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at [Sandra.Martinez@cbp.dhs.gov](mailto:Sandra.Martinez@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N306705

October 31, 2019

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 8531.20.0020, 9903.88.03

Ji Hye Kim  
KPMG Customs Corp.  
27F, Gangnam Finance Center,  
152, Teheran-ro, Gangnam-gu  
Seoul 06236, Korea

RE: The tariff classification of LCD indicator panels from China

Dear Ms. Kim:

In your letter dated October 14, 2019, you requested a tariff classification ruling on behalf of your client, Continental Automotive Electronics LLC.

The items concerned are LCD indicator panels used within an automobile (Part #s A2C01599000 and A2C00774001). These items are used to provide limited information to the driver.

Part # A2C01599000 is an LCD display that uses 6 segment-style characters and 24 etched icons to relay information.

Parts # A2C00774001 is an LCD display that uses 15 segment-style characters and 19 etched icons to relay information.

Both LCD display modules are used in vehicle dashboards or HVAC system panels. They indicate the amount of fuel remaining in the tank, driving distance, time, audio output, external temperature and RPM by lighting pre-designed letters, numbers, symbols and shapes in segmented formats.

The applicable subheading for both LCD indicator panels (Part #s A2C01599000 and A2C00774001) will be 8531.20.0020, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Electric sound or visual signaling apparatus...: Indicator panels incorporating liquid crystal devices (LCD's) or light emitting diodes (LED): Incorporating LCD's.” The general rate of duty will be Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8531.20.00, HTSUS, unless specifically excluded, are subject to an additional

25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8531.20.0020, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at steven.pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N307372

November 27, 2019

CLA-2:OT:RR:NC:N1:126

CATEGORY: Country of origin

Alan R. Klestadt  
Christina M. Leonard  
Grunfeld, Desiderio, Lebowitz, Silverman, & Klestadt LLP  
580 Fifth Avenue, Suite 1100  
New York, NY 10036

RE: Country of origin determination for diamonds

Dear Mr. Klestadt and Ms. Leonard:

In your letter dated October 18, 2019, on behalf of Hasenfeld-Stein, Inc., you requested a country of origin determination ruling.

The merchandise under consideration consists of cut and polished diamonds. From the information you provided, the rough diamonds at issue are mined in Botswana and shipped to Hasenfeld-Stein, Inc., in United States (U.S.) where they are evaluated for size, shape, and brilliance. The rough diamonds are shipped to China where they are simply sawn and blocked. The rough diamonds are then shipped to India where they are cut, faceted, and polished, suitable for the use in manufacture of jewelry, but unmounted at the time of importation into the United States.

Section 134.1(b) of the Customs Regulations (19 CFR 134.1(b)) provides that the "[c]ountry of origin" means the country of manufacture, production or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the "country of origin" within the meaning of Part 134, Customs Regulations (19 CFR Part 134). Substantial transformation requires that "[t]here must be a transformation; a new and different article must emerge, 'having distinctive name, character, or use.'" *Anheuser-Busch Brewing Association v. United States*, 207 U.S. 556, 28 S. Ct 204 (1908).

Your letter indicates that upon exportation from Botswana to the U.S., and from the U.S. to China, the rough diamonds are classifiable under subheading 7102.31.00, Harmonized Tariff Schedule of the United States (HTSUS), which provides for unworked or simply sawn, cleaved, or bruted diamonds. Subsequent to cutting and polishing in India, you indicate that the finished diamonds are classifiable under subheading 7102.39.00, HTSUS, which provides for "Other" diamonds. For purposes of this ruling, we are assuming that the above classifications are correct.

In the instant case, the cutting and polishing of the rough diamonds performed in India is a significant manufacturing operation which has the effect of changing the character of the outer surface of the rough diamond, resulting in a substantial transformation. Therefore, the country of origin of the cut and polished diamonds will be India.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Elena Pietron at elena.m.pietron@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N309327

February 19, 2020

CLA-2-84:OT:RR:NC:N1:104

CATEGORY: Classification

TARIFF NO.: 8479.89.9499

Lawrence M. Friedman  
Barnes, Richardson & Colburn, LLP  
303 East Wacker Drive  
Suite 305  
Chicago, IL 60601

RE: The tariff classification of a motorized solar tracker from Spain.

Dear Mr. Friedman:

In your letter dated January 29, 2020, you requested a tariff classification ruling on behalf of your client, Nclave Renewable S.L.

The item under consideration, the Nclave SP160 Solar Tracker, is a mechanical device that adjusts the orientation of solar panels based on the movement of the sun. The component materials of the Solar Tracker are electronic equipment; slew drive; motor or actuator; and a steel structural unit and related parts. No solar panels are included with the Solar Tracker at importation. All components are shipped unassembled for installation after importation into the United States.

You present two different shipping scenarios. In scenario one, the components that makeup the Solar Tracker will be consolidated at a single port of export (Spain) and shipped separately on multiple conveyances. In scenario two, the components that make up the Solar Tracker will be shipped separately on multiple conveyances from different ports of export in Spain, China, and possibly other locations. You state that 19 CFR §141.58 is applicable in both shipping scenarios.

Classification of goods under the HTSUS is governed by the General Rules of Interpretation (GRIs). GRI 1 provides that classification shall be determined according to the terms of the headings and any relative section or chapter notes. Merchandise that cannot be classified in accordance with GRI 1 is to be classified in accordance with subsequent GRI's taken in order. As stated in your submission, the mechanical tracker components are shipped unassembled. General Rule of Interpretation "GRI" 2(a) states as follows:

Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as entered, the incomplete or unfinished article has

the essential character of the complete or finished article. It shall also include a reference to that article complete or finished (or failing to be classified as complete or finished by virtue of this rule), entered unassembled or disassembled.

Furthermore, the Explanatory Notes to the Harmonized Commodity Description and Coding System (ENs) represent the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS, and are generally indicative of the proper interpretation of these headings. See T.D. 89-90, 54 Fed. Reg. 35127, 35128 (August 23, 1989). The EN for GRI 2(a) states in “Rule 2(a) (Articles presented unassembled or disassembled) (V)”:

The second part of Rule 2 (a), provides that complete or finished articles presented unassembled or disassembled are to be classified in the same heading as the assembled article. When goods are so presented, it is usually for reasons such as requirements or convenience of packing, handling or transport.

The applicable subheading for the Nclave SP160 Solar Tracker, when shipped in accordance with 19 CFR §141.58 as described in scenario one, will be 8479.89.9499, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Other: Other”. The rate of duty will be 2.5 percent ad valorem.

Scenario two does not meet the requirements set forth in 19 CFR §141.58 and the goods in each individual shipment will be subject to classification in accordance with their condition as imported. See Headquarters Ruling Number H234076 dated March 22, 2013.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Denise Hopkins at [denise.hopkins@cbp.dhs.gov](mailto:denise.hopkins@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N309327

February 19, 2020

CLA-2-84:OT:RR:NC:N1:104

CATEGORY: Classification

TARIFF NO.: 8479.89.9499

Lawrence M. Friedman  
Barnes, Richardson & Colburn, LLP  
303 East Wacker Drive  
Suite 305  
Chicago, IL 60601

RE: The tariff classification of a motorized solar tracker from Spain.

Dear Mr. Friedman:

In your letter dated January 29, 2020, you requested a tariff classification ruling on behalf of your client, Nclave Renewable S.L.

The item under consideration, the Nclave SP160 Solar Tracker, is a mechanical device that adjusts the orientation of solar panels based on the movement of the sun. The component materials of the Solar Tracker are electronic equipment; slew drive; motor or actuator; and a steel structural unit and related parts. No solar panels are included with the Solar Tracker at importation. All components are shipped unassembled for installation after importation into the United States.

You present two different shipping scenarios. In scenario one, the components that makeup the Solar Tracker will be consolidated at a single port of export (Spain) and shipped separately on multiple conveyances. In scenario two, the components that make up the Solar Tracker will be shipped separately on multiple conveyances from different ports of export in Spain, China, and possibly other locations. You state that 19 CFR §141.58 is applicable in both shipping scenarios.

Classification of goods under the HTSUS is governed by the General Rules of Interpretation (GRIs). GRI 1 provides that classification shall be determined according to the terms of the headings and any relative section or chapter notes. Merchandise that cannot be classified in accordance with GRI 1 is to be classified in accordance with subsequent GRI's taken in order. As stated in your submission, the mechanical tracker components are shipped unassembled. General Rule of Interpretation "GRI" 2(a) states as follows:

Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as entered, the incomplete or unfinished article has

the essential character of the complete or finished article. It shall also include a reference to that article complete or finished (or failing to be classified as complete or finished by virtue of this rule), entered unassembled or disassembled.

Furthermore, the Explanatory Notes to the Harmonized Commodity Description and Coding System (ENs) represent the official interpretation of the Harmonized System at the international level. While neither legally binding nor dispositive, the ENs provide a commentary on the scope of each heading of the HTSUS, and are generally indicative of the proper interpretation of these headings. See T.D. 89-90, 54 Fed. Reg. 35127, 35128 (August 23, 1989). The EN for GRI 2(a) states in “Rule 2(a) (Articles presented unassembled or disassembled) (V)”:

The second part of Rule 2 (a), provides that complete or finished articles presented unassembled or disassembled are to be classified in the same heading as the assembled article. When goods are so presented, it is usually for reasons such as requirements or convenience of packing, handling or transport.

The applicable subheading for the Nclave SP160 Solar Tracker, when shipped in accordance with 19 CFR §141.58 as described in scenario one, will be 8479.89.9499, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Machines and mechanical appliances having individual functions, not specified or included elsewhere in this chapter; parts thereof: Other machines and mechanical appliances: Other: Other: Other”. The rate of duty will be 2.5 percent ad valorem.

Scenario two does not meet the requirements set forth in 19 CFR §141.58 and the goods in each individual shipment will be subject to classification in accordance with their condition as imported. See Headquarters Ruling Number H234076 dated March 22, 2013.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Denise Hopkins at [denise.hopkins@cbp.dhs.gov](mailto:denise.hopkins@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N311614

May 27, 2020

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 8517.62.0090, 9903.88.15

Timothy Ruane  
Senior Manager, Customs & Trade – Americas  
Amer Sports  
130 E Randolph St. Suite 600  
Chicago, Illinois 60601

RE: The tariff classification of an electronic smart watch from China

Dear Mr. Ruane:

In your letter dated May 5, 2020, you requested a tariff classification ruling on behalf of your client, Amer Sports Winter & Outdoor.

The item concerned is referred to as the Suunto 7 which is a GPS sports and smart watch. The Suunto 7 is a multifunctional electronic wearable device which pairs its bi-directional open wireless Bluetooth and Wi-Fi technology with a smartphone or directly to the internet (using Wi-Fi connectivity).

The Suunto 7 is worn on a person's wrist and designed to both manage data and to support personal fitness. The Bluetooth/Wi-Fi capability is essential to the use and operation of the device because the Suunto 7 has limited functionality until it has been paired with a smart phone or internet. The Bluetooth and Wi-Fi transceivers enables the Suunto 7 to communicate wirelessly with a paired, internet connected mobile device to display, manipulate, and store data via the use of specific apps.

The Suunto 7 displays incoming call notifications and messages. The user can reply to messages and answer calls directly from the smart watch itself. The device also works with contactless payment systems.

The fitness functionality includes the ability to download and view maps, record, track and measure fitness levels based upon the information gathered by the incorporated fitness sensors within the device.

The Suunto 7 features the following:

- AMOLED display, Resolution: 454 x 454, touch screen.

- Accelerometer, Gyroscope, Magnetometer, Barometer, Wrist heart rate, Ambient light, Off body sensor, Fused Speed and altitude
- Wi-Fi, BT LE 4.2, NFC, USB
- GPS
- Battery - 450 mAh
- Microphone
- Operating system - Wear OS
- Voice commands
- Music playback with or without phone
- Online and Offline maps

The applicable subheading for the Suunto 7 GPS sports and smart watch will be 8517.62.0090, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” The general rate of duty will be Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8517.62.00, HTSUS, unless specifically excluded, are subject to an additional 7.5 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.15, in addition to subheading 8517.62.0090, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at steven.pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N311614

May 27, 2020

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 8517.62.0090, 9903.88.15

Timothy Ruane  
Senior Manager, Customs & Trade – Americas  
Amer Sports  
130 E Randolph St. Suite 600  
Chicago, Illinois 60601

RE: The tariff classification of an electronic smart watch from China

Dear Mr. Ruane:

In your letter dated May 5, 2020, you requested a tariff classification ruling on behalf of your client, Amer Sports Winter & Outdoor.

The item concerned is referred to as the Suunto 7 which is a GPS sports and smart watch. The Suunto 7 is a multifunctional electronic wearable device which pairs its bi-directional open wireless Bluetooth and Wi-Fi technology with a smartphone or directly to the internet (using Wi-Fi connectivity).

The Suunto 7 is worn on a person's wrist and designed to both manage data and to support personal fitness. The Bluetooth/Wi-Fi capability is essential to the use and operation of the device because the Suunto 7 has limited functionality until it has been paired with a smart phone or internet. The Bluetooth and Wi-Fi transceivers enables the Suunto 7 to communicate wirelessly with a paired, internet connected mobile device to display, manipulate, and store data via the use of specific apps.

The Suunto 7 displays incoming call notifications and messages. The user can reply to messages and answer calls directly from the smart watch itself. The device also works with contactless payment systems.

The fitness functionality includes the ability to download and view maps, record, track and measure fitness levels based upon the information gathered by the incorporated fitness sensors within the device.

The Suunto 7 features the following:

- AMOLED display, Resolution: 454 x 454, touch screen.

- Accelerometer, Gyroscope, Magnetometer, Barometer, Wrist heart rate, Ambient light, Off body sensor, Fused Speed and altitude
- Wi-Fi, BT LE 4.2, NFC, USB
- GPS
- Battery - 450 mAh
- Microphone
- Operating system - Wear OS
- Voice commands
- Music playback with or without phone
- Online and Offline maps

The applicable subheading for the Suunto 7 GPS sports and smart watch will be 8517.62.0090, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” The general rate of duty will be Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8517.62.00, HTSUS, unless specifically excluded, are subject to an additional 7.5 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.15, in addition to subheading 8517.62.0090, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at steven.pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N312330

June 29, 2020

CLA-2-90:OT:RR:NC:N1:105

CATEGORY: Classification

TARIFF NO.: 9025.19.8040, 9903.88.02

Raffaele Natale  
American Shipping Co. Inc.  
250 Moonachie Road  
Moonachie, NJ 07074

RE: The tariff classification of the O2TML Thermal Screening and Face Recognition Terminal from China

Dear Mr. Natale:

In your letter dated June 9, 2020, on behalf of your client, Component Specialties Inc., D/B/S Speco Technologies, you requested a tariff classification ruling.

The item under consideration is the O2TML Thermal Screening and Face Recognition Terminal (“O2TML”). Based on the product description sheet you provided with your submission, the O2TML is a composite machine that has several features including temperature reading, facial recognition, mask detection, an eight inch LCD display and audible alarms.

The O2TML determines the temperature of the user by utilizing an infrared thermopile sensor. The sensor acts similarly to an infrared thermometer providing a temperature reading on the LCD display. The sensor only detects the heat of the user and does not provide a visual thermal image. The O2TML also has facial recognition and mask detection utilizing advanced software and a two megapixel dual lens camera. The user will place their face in front of the facial recognition camera, which identifies the user and displays their information on the LCD display. The camera, utilizing the software, is also able to determine if the user is wearing a mask. If the body temperature exceeds the standard, or if a mask is not detected, a voice alarm will sound. The device also has the optional feature of denying access to a door if the voice alarm sounds.

General Rule of Interpretation (GRI) 1, Harmonized Tariff Schedule of the United States (HTSUS), states in part that for legal purposes, classification shall be determined according to the terms of the headings, any relative section or chapter notes and, unless otherwise required, according to the remaining GRI's taken in order. Goods that are, *prima facie*, classifiable under two or more headings, are classifiable in accordance with GRI 3. GRI 3(a) states that the heading which provides the most specific description shall be preferred to headings providing a more general description. However, when two or more headings refers to only part of the machine then

those headings are to be regarded as equally specific in relation to the function of the machine. As per Note 3 to Section XVI, composite machines consisting of two or more machines fitted together or machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component which performs the principal function. In this instance, principal function cannot be determined. According to General Explanatory Note (VI) to Section XVI, titled “Multi-Function Machines and Composite Machines”, when it is not possible to determine the principal function of the machine as provided for in Note 3 to Section XVI, and when the context does not otherwise require, it is necessary to apply GRI 3(c). Thus, the O2TML Thermal Screening and Face Recognition Terminal is classifiable in the subheading, which occurs last in numerical order among those which equally merit consideration. In this instance, the temperature reading component falls within heading 9025.

The applicable subheading for the O2TML Thermal Screening and Face Recognition Terminal will be 9025.19.8040, HTSUS, which provides for “Hydrometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers, recording or not, and any combination of these instruments; parts and accessories thereof: Thermometers and pyrometers, not combined with other instruments: Other: Other: Clinical.” The general rate of duty will be free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 9025.19.8040, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.02, in addition to subheading 9025.19.8040, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china> respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Jason Christie at [Jason.M.Christie@cbp.dhs.gov](mailto:Jason.M.Christie@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N313648

August 26, 2020

CLA-2-87:OT:RR:NC:N2:206

CATEGORY: Classification

TARIFF NO.: 8708.30.5090

Daniel Cannistra  
Crowell & Moring, LLP  
1001 Pennsylvania Avenue NW  
Washington, DC 20004-2595

RE: The tariff classification of an EPB actuator assembly from Japan.

Dear Mr. Cannistra

In your letter dated July 31, 2020, you requested a tariff classification ruling on behalf of your client, Aisin Holding of America Inc. Pictures and other descriptive literature were submitted with your request.

The merchandise is an Electric Parking Brake (EPB) Actuator Assembly for automotive applications. The EPB actuator is composed of two sub-assemblies: electric motor assembly, which consists of an enclosure, an electric motor, gearing and an output shaft, and an attached brake caliper. At the time of importation, the two sub-assemblies are joined to form a single assembly that functions as an electric parking brake actuator. When the driver activates the switch (button), a command is sent to the ECU, which then commands the actuator to operate, and the brake pads are electrically applied onto the rear brakes. The motor is used to generate parking brake force.

Tariff classification under the Harmonized Tariff Schedule of the United States (HTSUS) is governed by the principles set forth in the General Rules of Interpretation (GRIs). GRI 3(b) is applicable when goods are, *prima facie*, classifiable under two or more headings, and are composite goods, such as the map lamp assembly. GRI 3(b) states that the goods “shall be classified as if they consisted of the material or component which gives them their essential character.”

Consideration was given to classifying the EPB Actuator Assembly in heading 8501, HTSUS, which provides for electric motors, as you suggested. However, in our view, the presence of the caliper assembly, which functions to physically apply the outward movement of the caliper to produce friction and thus braking, removes the subject merchandise from consideration as merely the electric motor. As a result, the essential character of the EPB assembly is the brake caliper.

The applicable subheading for the EPB Actuator Assembly will be 8708.30.5090, HTSUS, which provides for “Parts and accessories of the motor vehicles of headings 8701 to 8705: Brakes and servo-brakes; parts thereof: For other vehicles: Other.” The duty rate will be 2.5 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, please contact National Import Specialist Liana Alvarez at [liana.alvarez@cbp.dhs.gov](mailto:liana.alvarez@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N315309

October 30, 2020

CLA-2-90:OT:RR:NC:N1:105

CATEGORY: Classification

TARIFF NO.: 9025.19.8010; 9903.88.02

Gregory Harris  
V. Alexander & Co., Inc.  
22 Century Blvd, Suite 510  
Nashville, TN 37214

RE: The tariff classification of the MX8 and MX4 Temperature Screening Devices from China

Dear Mr. Harris:

In your letter dated October 20, 2020, on behalf of Health Tech Distributors, LLC, you requested a tariff classification ruling.

The first item under consideration is identified as the MX8 Temperature Screening Device, which is a composite machine that consists of an infrared thermometer connected to a programmable 8-inch LCD touch screen. The device encompasses a wide motion camera for facial recognition and mask detection. The temperature reading is displayed on the LCD screen and will alert the user if their temperature is above the predetermined threshold. The device will also recognize if the user is wearing a mask and will alert the user if no mask is detected. If specifically programmed, the MX8 can provide entry into the building for registered employees, staff, or students and also store information related to attendance.

The second item under consideration is identified as the MX4 Temperature Screening device, which is a composite machine that consists of an infrared thermometer connected to a programmable 21.5-inch LCD touch screen. The device encompasses a wide angle, 720P HD imaging camera for facial recognition and mask detection, and an automatic hand sanitizing dispenser. The dispenser will place a preset amount of hand sanitizer (foam, gel or liquid) in a user's hand when placed in front of the infrared sensor. The temperature reading is displayed on the LCD screen and will alert the user if the temperature is above a predetermined threshold. The device will also recognize if the user is wearing a mask and will alert the user if no mask is detected. If specifically programmed, the MX4 can provide entry into the building for registered employees, staff, or students and also store information related to attendance. The MX4 can be set to display simple messages or advertisements on the 21.5-inch LCD screen.

General Rule of Interpretation (GRI) 1, Harmonized Tariff Schedule of the United States (HTSUS), states in part that for legal purposes, classification shall be determined according to the terms of the headings, any relative section or chapter notes and, unless otherwise required, according to the remaining GRI's taken in order. Goods that are, *prima facie*, classifiable under two or more headings, are classifiable in accordance with GRI 3. GRI 3(a) states that the heading which provides the most specific description shall be preferred to headings providing a more general description. However, when two or more headings refers to only part of the machine then those headings are to be regarded as equally specific in relation to the function of the machine. As per Note 3 to Section XVI, composite machines consisting of two or more machines fitted together or machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component which performs the principal function. In this instance, principal function cannot be determined. According to General Explanatory Note (VI) to Section XVI, titled "Multi-Function Machines and Composite Machines", when it is not possible to determine the principal function of the machine as provided for in Note 3 to Section XVI, and when the context does not otherwise require, it is necessary to apply GRI 3(c). Thus, the MX8 and MX4 Temperature Screening Devices are classifiable in the subheading, which occurs last in numerical order among those which equally merit consideration. In this instance, the temperature reading component falls within heading 9025.

The applicable subheading for the MX8 and MX4 Temperature Screening Devices will be 9025.19.8010, HTSUS, which provides for "Hydrometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers, recording or not, and any combination of these instruments; parts and accessories thereof: Thermometers and pyrometers, not combined with other instruments: Other: Other: Clinical: Infrared thermometers of a kind described in statistical note 2 of this chapter." The rate of duty will be free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 9025.19.8010, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.02, in addition to subheading 9025.19.8010, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china> respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Jason Christie at [jason.m.christie@cbp.dhs.gov](mailto:jason.m.christie@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N317139

February 23, 2021

CLA-2-94:OT:RR:NC:N4:463

CATEGORY: Classification

TARIFF NO.: 9403.20.0035; 9903.88.03

Leslie A. Glick  
Butzel Long Attorneys and Counselors  
1909 K Street N.W., Suite 500  
Washington, DC 20006

RE: Tariff classification of a Bluetooth or Wi-Fi enabled adjustable bed base made in China, Vietnam or Taiwan

Dear Mr. Glick:

In your ruling request dated February 22, 2021, you requested a binding ruling on the tariff classification of a series of adjustable bed bases with Bluetooth or Wi-Fi connectivity made to accommodate mattresses of various sizes. You provided detailed literature and a follow-up email.

The subject of this ruling request is the Reverie Adjustable Bed, model number R350, herein “adjustable bed,” a series of adjustable bed bases each designed to accommodate a mattresses of one of the following sizes: Twin (39" x 75"), Twin-XL (39" x 80"), Full (54" x 75"), Queen (60" x 80"), King (76" x 80") and California King (72" x 84"). The Bluetooth or Wi-Fi enabled adjustable bed has a regulable metal sub-frame with vibration motors. The textile-covered steel or wood platform is comprised of four articulated sections corresponding to a person's upper torso, hips, thighs, and calves/feet. Ports mounted on the frame allow for the connection and control of accessories that may include a heating pad, audio-vibration feedback, a cooling fan, a temperature sensor, etc. In its imported condition, the adjustable bed is disassembled and it does not include either a mattress or the aforementioned accessories.

The requester asserted that the networking capabilities of the adjustable bed are similar to those of the Suunto 7 sports and smart watch classified in subheading 8517.62.0090 (NYRL N311614), and that, as such, the adjustable bed should be similarly classified in subheading 8517.62.0090. Having studied the provided information, this office disagrees. Irrespective of whether the adjustable bed is controlled by a wired or wireless controller in the form of a smartphone or tablet app, irrespective of whether said app has memory or other ancillary functions, irrespective of whether the adjustable bed has ports for controlling accessories such as a heating pad, audio vibration feedback, a cooling fan, a temperature sensor, etc., the adjustable bed remains a mechanically adjustable bed or mattress base.

In accordance with General Rule of Interpretation (GRI) 1, the applicable subheading for the adjustable bed is 9403.20.0035, HTSUS, which provides for “Other furniture and parts thereof: Other metal furniture: Household: Other: Mechanically adjustable bed or mattress base, not foldable, having the characteristics of a bed or bed frame, of a width exceeding 91.44 cm, of a length exceeding 184.15 cm, and of a depth exceeding 8.89 cm.” The rate of duty will be free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 9403.20.0035, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 9403.20.0035, HTSUS, listed above.

The HTSUS is subject to periodic amendment, so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Seth Mazze at [seth.mazze@cbp.dhs.gov](mailto:seth.mazze@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N311614

May 27, 2020

CLA-2-85:OT:RR:NC:N2:209

CATEGORY: Classification

TARIFF NO.: 8517.62.0090, 9903.88.15

Timothy Ruane  
Senior Manager, Customs & Trade – Americas  
Amer Sports  
130 E Randolph St. Suite 600  
Chicago, Illinois 60601

RE: The tariff classification of an electronic smart watch from China

Dear Mr. Ruane:

In your letter dated May 5, 2020, you requested a tariff classification ruling on behalf of your client, Amer Sports Winter & Outdoor.

The item concerned is referred to as the Suunto 7 which is a GPS sports and smart watch. The Suunto 7 is a multifunctional electronic wearable device which pairs its bi-directional open wireless Bluetooth and Wi-Fi technology with a smartphone or directly to the internet (using Wi-Fi connectivity).

The Suunto 7 is worn on a person's wrist and designed to both manage data and to support personal fitness. The Bluetooth/Wi-Fi capability is essential to the use and operation of the device because the Suunto 7 has limited functionality until it has been paired with a smart phone or internet. The Bluetooth and Wi-Fi transceivers enables the Suunto 7 to communicate wirelessly with a paired, internet connected mobile device to display, manipulate, and store data via the use of specific apps.

The Suunto 7 displays incoming call notifications and messages. The user can reply to messages and answer calls directly from the smart watch itself. The device also works with contactless payment systems.

The fitness functionality includes the ability to download and view maps, record, track and measure fitness levels based upon the information gathered by the incorporated fitness sensors within the device.

The Suunto 7 features the following:

- AMOLED display, Resolution: 454 x 454, touch screen.

- Accelerometer, Gyroscope, Magnetometer, Barometer, Wrist heart rate, Ambient light, Off body sensor, Fused Speed and altitude
- Wi-Fi, BT LE 4.2, NFC, USB
- GPS
- Battery - 450 mAh
- Microphone
- Operating system - Wear OS
- Voice commands
- Music playback with or without phone
- Online and Offline maps

The applicable subheading for the Suunto 7 GPS sports and smart watch will be 8517.62.0090, Harmonized Tariff Schedule of the United States (HTSUS), which provides for “Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof: Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other.” The general rate of duty will be Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8517.62.00, HTSUS, unless specifically excluded, are subject to an additional 7.5 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.15, in addition to subheading 8517.62.0090, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Steven Pollichino at steven.pollichino@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N317139

February 23, 2021

CLA-2-94:OT:RR:NC:N4:463

CATEGORY: Classification

TARIFF NO.: 9403.20.0035; 9903.88.03

Leslie A. Glick  
Butzel Long Attorneys and Counselors  
1909 K Street N.W., Suite 500  
Washington, DC 20006

RE: Tariff classification of a Bluetooth or Wi-Fi enabled adjustable bed base made in China, Vietnam or Taiwan

Dear Mr. Glick:

In your ruling request dated February 22, 2021, you requested a binding ruling on the tariff classification of a series of adjustable bed bases with Bluetooth or Wi-Fi connectivity made to accommodate mattresses of various sizes. You provided detailed literature and a follow-up email.

The subject of this ruling request is the Reverie Adjustable Bed, model number R350, herein “adjustable bed,” a series of adjustable bed bases each designed to accommodate a mattresses of one of the following sizes: Twin (39" x 75"), Twin-XL (39" x 80"), Full (54" x 75"), Queen (60" x 80"), King (76" x 80") and California King (72" x 84"). The Bluetooth or Wi-Fi enabled adjustable bed has a regulable metal sub-frame with vibration motors. The textile-covered steel or wood platform is comprised of four articulated sections corresponding to a person's upper torso, hips, thighs, and calves/feet. Ports mounted on the frame allow for the connection and control of accessories that may include a heating pad, audio-vibration feedback, a cooling fan, a temperature sensor, etc. In its imported condition, the adjustable bed is disassembled and it does not include either a mattress or the aforementioned accessories.

The requester asserted that the networking capabilities of the adjustable bed are similar to those of the Suunto 7 sports and smart watch classified in subheading 8517.62.0090 (NYRL N311614), and that, as such, the adjustable bed should be similarly classified in subheading 8517.62.0090. Having studied the provided information, this office disagrees. Irrespective of whether the adjustable bed is controlled by a wired or wireless controller in the form of a smartphone or tablet app, irrespective of whether said app has memory or other ancillary functions, irrespective of whether the adjustable bed has ports for controlling accessories such as a heating pad, audio vibration feedback, a cooling fan, a temperature sensor, etc., the adjustable bed remains a mechanically adjustable bed or mattress base.

In accordance with General Rule of Interpretation (GRI) 1, the applicable subheading for the adjustable bed is 9403.20.0035, HTSUS, which provides for “Other furniture and parts thereof: Other metal furniture: Household: Other: Mechanically adjustable bed or mattress base, not foldable, having the characteristics of a bed or bed frame, of a width exceeding 91.44 cm, of a length exceeding 184.15 cm, and of a depth exceeding 8.89 cm.” The rate of duty will be free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 9403.20.0035, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 9403.20.0035, HTSUS, listed above.

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N317139

February 23, 2021

CLA-2-94:OT:RR:NC:N4:463

CATEGORY: Classification

TARIFF NO.: 9403.20.0035; 9903.88.03

Leslie A. Glick  
Butzel Long Attorneys and Counselors  
1909 K Street N.W., Suite 500  
Washington, DC 20006

RE: Tariff classification of a Bluetooth or Wi-Fi enabled adjustable bed base made in China, Vietnam or Taiwan

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The requester asserted that the networking capabilities of the adjustable bed are similar to those of the Suunto 7 sports and smart watch classified in subheading 8517.62.0090 (NYRL N311614), and that, as such, the adjustable bed should be similarly classified in subheading 8517.62.0090. Having studied the provided information, this office disagrees. Irrespective of whether the adjustable bed is controlled by a wired or wireless controller in the form of a smartphone or tablet app, irrespective of whether said app has memory or other ancillary functions, irrespective of whether the adjustable bed has ports for controlling accessories such as a heating pad, audio vibration feedback, a cooling fan, a temperature sensor, etc., the adjustable bed remains a mechanically adjustable bed or mattress base.

In accordance with General Rule of Interpretation (GRI) 1, the applicable subheading for the adjustable bed is 9403.20.0035, HTSUS, which provides for “Other furniture and parts thereof: Other metal furniture: Household: Other: Mechanically adjustable bed or mattress base, not foldable, having the characteristics of a bed or bed frame, of a width exceeding 91.44 cm, of a length exceeding 184.15 cm, and of a depth exceeding 8.89 cm.” The rate of duty will be free.

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N317139

February 23, 2021

CLA-2-94:OT:RR:NC:N4:463

CATEGORY: Classification

TARIFF NO.: 9403.20.0035; 9903.88.03

Leslie A. Glick  
Butzel Long Attorneys and Counselors  
1909 K Street N.W., Suite 500  
Washington, DC 20006

RE: Tariff classification of a Bluetooth or Wi-Fi enabled adjustable bed base made in China, Vietnam or Taiwan

Dear Mr. Glick:

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The requester asserted that the networking capabilities of the adjustable bed are similar to those of the Suunto 7 sports and smart watch classified in subheading 8517.62.0090 (NYRL N311614), and that, as such, the adjustable bed should be similarly classified in subheading 8517.62.0090. Having studied the provided information, this office disagrees. Irrespective of whether the adjustable bed is controlled by a wired or wireless controller in the form of a smartphone or tablet app, irrespective of whether said app has memory or other ancillary functions, irrespective of whether the adjustable bed has ports for controlling accessories such as a heating pad, audio vibration feedback, a cooling fan, a temperature sensor, etc., the adjustable bed remains a mechanically adjustable bed or mattress base.

In accordance with General Rule of Interpretation (GRI) 1, the applicable subheading for the adjustable bed is 9403.20.0035, HTSUS, which provides for “Other furniture and parts thereof: Other metal furniture: Household: Other: Mechanically adjustable bed or mattress base, not foldable, having the characteristics of a bed or bed frame, of a width exceeding 91.44 cm, of a length exceeding 184.15 cm, and of a depth exceeding 8.89 cm.” The rate of duty will be free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 9403.20.0035, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 9403.20.0035, HTSUS, listed above.

The HTSUS is subject to periodic amendment, so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N319724

June 14, 2021

CLA-2-94:OT:RR:NC:N4:463

CATEGORY: Classification

TARIFF NO.: 9403.20.0090; 9903.88.03

Mr. Malcolm Kay  
Archatrak Inc.  
1288 N 14<sup>th</sup> Ave  
Bozeman, MT 59715

RE: Classification of a Solar Picnic Table made in China

Dear Mr. Kay:

This is in reply to your letter dated May 27, 2021, requesting a tariff classification ruling for a Solar Picnic Table. In lieu of samples, illustrative literature and product descriptions were provided.

The merchandise under consideration is identified as a Solar Picnic Table, model WYC1812, and is described as a rectangular table with two benches constructed of a composite wood tabletop and bench tops mounted on a stainless-steel frame under an overhead array of photovoltaic (PV) cells. The PV cells generate up to 400W of electricity that are transmitted to a 110Ah storage battery located under one of the bench seats. On the underside of the elevated PV panels are four 50W LED lights. There are four USB outlets on the rectangular central pole and two QI outlets in the tabletop. The table measures 58" (L) x 41" (W) and the two benches each measure 58"(L) x 17" (W). The complete solar picnic table measures 98" (L) x 66" (W) x 93" (H), weighs approximately 300 kg, and is made in China. It has no external power supply. An optional Wi-Fi modem is available. See the following image:

Solar Picnic Table, WYC1812



Classification under the Harmonized Tariff Schedule of the United States (HTSUS) is made in accordance with the General Rules of Interpretation (GRIs). GRI 1 provides that the classification of goods shall be determined according to the terms of the headings of the tariff schedule and any relative section or chapter notes (together known as legal notes). If the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 are then applied in order.

The competing HTSUS headings are 8504 (Electrical transformers...) and heading 9403 (Other furniture and parts thereof). In NY Ruling N268135, Sept. 23, 2015, the similar Strawberry Tree and Strawberry Smart Bench were both determined to be articles of furniture in Chapter 94, HTSUS. The integrated PV cells, controller, storage battery, lighting and charge ports were found to be subsidiary to the articles' function as a seat. With respect to the subject solar picnic table, its principal use is to provide bench seating as a picnic table, with its secondary function being to provide lighting and charge mobile devices. Therefore, for classification purposes, it will be classified in heading 9403 HTSUS (other furniture).

Because the subject article is composed of different materials, it is considered a composite good for tariff purposes. The competing HTSUS subheadings are 9403.20 (Other metal furniture) vs. subheading 9403.60 (Other wooden furniture). The Explanatory Notes to the HTSUS, GRI 3(b) (VIII) state that "the factor which determines essential character will vary between different kinds of goods. It may, for example, be determined by the nature of the materials or components, its bulk, quantity, weight or value, or by the role of a constituent material in relation to the use of the goods.

The provided material breakdown indicates that the stainless-steel components weigh more than the wood components by almost 4:1 and cost more than the wood components by more than 10:1. The stainless-steel components are also significantly more substantial than the wood components, providing the structure for the table, the benches, and the overhead array. Based on the aforementioned essential character analysis, the article will be classified as metal furniture in subheading 9403.20, HTSUS.

The applicable subheading for the Solar Picnic Table, model WYC1812, will be subheading 9403.20.0090, HTSUS, which provides for "Other metal furniture: Other: Other." The rate of duty will be Free.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 9403.20.0090, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 9403.20.0090, HTSUS, listed above.

The HTSUS is subject to periodic amendment, so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, including information on exclusions and their effective dates, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china> respectively.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Seth Mazze at [seth.mazze@cbp.dhs.gov](mailto:seth.mazze@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N319849

June 22, 2021

CLA-2-85:OT:RR:NC:N4:410

CATEGORY: Classification

TARIFF NO.: 8508.11.0000; 9903.88.03

Mr. Nolan Xie  
Oriox Customs Broker Inc.  
139 Mitchell Ave.  
South San Francisco, CA 94080

RE: The tariff classification of a robotic vacuum cleaner from China

Dear Mr. Xie:

In your letter dated June 4, 2021, you requested a tariff classification ruling on behalf of Roborock Technology Co. Pictures and product specifications were submitted with your request.

The product is identified as the Roborock S7 Series Robotic Vacuum Cleaner. Based on the information and pictures that you have provided and the videos in the product websites, the Roborock S7 Series Robotic is a Wi-Fi connected vacuum robotic vacuum cleaner used to clean floors. The vacuum cleaner is for household use. It features a cleaning system allowing the vacuum cleaner to loosen, lift and suction dirt, dust and hair from hard floors and carpet. The vacuum cleaner consists of a round housing measuring approximately 350 mm in diameter and 96 mm in height with a self-contained electric motor and water tank inside. It has a mop cloth affixed to the mop cloth mount which will be vibrated by brushless motor. The peristaltic water pump sucks water from the water tank to the mop cloth to remove stains.

The vacuum is rated 100-240VAC and 28W with the dust cup capacity of 0.47 L. The vacuum cleaner is packaged with a rechargeable battery, a water tank, a mopping cloth, a VibraRise Mop Cloth Mount and a power cord for sale to individual consumers. Each unit is sold in a single package together with its corresponding accessories.

The applicable subheading for the Roborock S7 Series Robotic Vacuum Cleaner will be 8508.11.0000, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Vacuum cleaners, parts thereof: With a self-contained electric motor: Of a power not exceeding 1,500 W and having a dust bag or other receptacle capacity not exceeding 20 l". The rate of duty will be Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8508.11.0000, HTSUS, unless specifically excluded, are subject to an

additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8508.11.0000, HTSUS, listed above.

The HTSUS is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china>, respectively.

The tariff is subject to periodic amendment so you should exercise reasonable care in monitoring the status of goods covered by the Notice cited above and the applicable Chapter 99 subheading.

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A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Michael Chen at [michael.w.chen@cbp.dhs.gov](mailto:michael.w.chen@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N319849

June 22, 2021

CLA-2-85:OT:RR:NC:N4:410

CATEGORY: Classification

TARIFF NO.: 8508.11.0000; 9903.88.03

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Oriox Customs Broker Inc.  
139 Mitchell Ave.  
South San Francisco, CA 94080

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The applicable subheading for the Roborock S7 Series Robotic Vacuum Cleaner will be 8508.11.0000, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Vacuum cleaners, parts thereof: With a self-contained electric motor: Of a power not exceeding 1,500 W and having a dust bag or other receptacle capacity not exceeding 20 l". The rate of duty will be Free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8508.11.0000, HTSUS, unless specifically excluded, are subject to an

additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.03, in addition to subheading 8508.11.0000, HTSUS, listed above.

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N321561

September 24, 2021

CLA-2-85:OT:RR:NC:N2:220

CATEGORY: Classification

TARIFF NO.: 8501.51.4040

Dan Ford  
Mitsubishi Electric Automotive America, Inc.  
4773 Bethany Road  
Mason, OH 45040

RE: The tariff classification of electric drive motors from Japan

Dear Mr. Ford:

In your letter dated September 14, 2021, you requested a tariff classification ruling.

The merchandise under consideration is identified as the Power Steering Motor Control Units (MCU), which are described as permanent magnet, three-phase, synchronous, AC motors, each having an integrated controller, position sensor, and a power inverter. You state that the five motors are all similar in construction and function, having a maximum rated output of either 475 Watts or 477 Watts and are intended for use in steering systems of consumer and commercial vehicles.

In your letter, you state that the MCUs receive 12VDC electricity directly from the vehicle and the internal inverter converts the DC electricity to usable AC for the motor's operation. We would note that the classification of electric motors is dependent upon many factors, such as the type of electricity applied to the motor and/or the maximum power output, as measured in Watts, for example. With the instant motors, you state that the direct current applied to the motor must be converted to AC for the motors to function. In our view, the type of electricity that is applied to a motor's stator determines what type of motor it is for classification purposes. As such, we are of the opinion that the MCUs under consideration here are AC motors because that is the type of electricity that produces the rotation.

In your request, you suggest the MCUs are properly classified under subheading 8501.51, Harmonized Tariff Schedule of the United States, (HTSUS). We agree.

The applicable subheading for the subject MCUs will be 8501.51.4040, HTSUS, which provides for "Electric motors and generators (excluding generating sets): Other AC motors, multi-phase: Of an output not exceeding 750 W: Exceeding 74.6 W but not exceeding 735W: Other". The general rate of duty will be 2.5% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N321682

October 18, 2021

OT:RR:NC:N1:105

CATEGORY: Country of Origin

Beth Pride  
President  
BPE Global  
139 Pierce Street  
San Francisco, CA 94117

RE: The country of origin of a gas flow controller.

Dear Ms. Pride:

In your letter dated September 20, 2021, on behalf of your client, Pivotal Systems Corporation, you requested a country of origin ruling determination on a gas flow controller.

The merchandise under consideration is referred to as a gas flow controller (“GFC”). GFC’s are devices used to manage pressure, volume, temperature, and time during the semiconductor manufacturing process. The Pivotal Systems’ GFC’s are replacing the simpler Mass Flow Controllers (MFC) that have historically been used in the manufacturer of semiconductors. The GFCs are automatic regulating or controlling instruments that meet the National Institute of Standards and Technology (NIST) gas flow standards to provide a stable flow rate under varying pressure. The new High Flow GFCs flow up to 50 standard liters per minute (slm). The GFC consists of six main components: a machined metal baseblock, a printed circuit board (PCB), a temperature sensor, a pressure transducer, a gas flow controller valve, and a gas flow meter valve.

All Research and Development (R&D) for the Pivotal Systems GFCs are conducted in the United States by the Pivotal Systems team. No R&D occurs in China or in South Korea. In addition, both the operational firmware as well as the manufacturing firmware are created by the Pivotal System team in the United States.

Pivotal Systems employs a three-phase flow to build their GFCs. Phase 1 is the complete assembly process of the GFC hardware components that ensures the electronics are working. This includes the loading of the manufacturing firmware and the assembly of the six main components including a machined metal baseblock, a PCB, a temperature sensor, a pressure transducer, a gas flow controller valve, and a gas flow meter valve. The metal baseblock is machined to exact specifications in China. The baseblock provides the platform on which all other components of the GFC are mounted and contain the channels that form the main flow path of the gas. The external metal case is put on in China and is only removed in the rare case where the rework of the metal assembly is required. The baseblock and other components do not have

full functionality when exported from China but are able to be powered on for integration testing purposes. The complete assembly is further tested for gas leaks using a helium leak check. Phase 1, in its entirety, is performed in China.

Phase 2 is the activation phase where the GFC operational firmware is programmed onto the PCBA. The software that is loaded activates the GFC and enables processed gas to flow. The GFC is activated to communicate externally with a wafer fabrication system via digital, or analog communications. The GFC cannot process gas at this point, however, gas can flow through the device and the GFC can be brought into specific tolerances. The accuracy depends on the accuracy of the pressure measurement component, volume measurement component, temperature measurement component and accuracy of the actual volume measurement in the manufacturing flow. Additionally, the secure hashing algorithm chip is programmed with an encrypted algorithm to protect the Intellectual Property of the GFC.

Phase 2 also includes the volume calibration, which occurs by measuring the volume of the metal baseblock against a traceable volume that is measured gravimetrically. The measurement is carried out on a station that has the two key reference standards. During the mapping stage the data that is collected is the unique properties of the individual GFC to determine the unique flow fingerprint of the GFC. The result of this measurement is input into a program that calculates the necessary calibration based on the following information that is unique to the individual GFC: volume measurement, valve information and the map of the pressure transducer. Each unit is then programmed with this individual map before being tested for flow at a steady pressure but changing volume during “Flow Verify”. Flow Verification validates that the unit flows accurately. It confirms the Volume Calculation and Mapping processes were successful and meet the NIST standards. Phase 2, in its’ entirety, is performed in South Korea.

Phase 3 is where the GFC is programmed to meet customer requirements and enables process gas flow. This process also occurs in South Korea. The customer configuration step transforms the GFC for positional valve sensing and controls specific to the gas type, flow range and communications protocols as specified by the customer. Customer-specific performance features are also added during this step. During the backup stage the GFC mapping specific to the customer/GFC is backed up to the Pivotal Systems servers in the US. Final steps include labeling, final inspections, and shipping.

The “country of origin” is defined in 19 CFR 134.1(b) as the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the ‘country of origin’ within the meaning of this part.

The courts have held that a substantial transformation occurs when an article emerges from a process with a new name, character or use different from that possessed by the article prior to processing. *United States v. Gibson-Thomsen Co., Inc.*, 27 CCPA 267, C.A.D. 98 (1940); *National Hand Tool Corp. v. United States*, 16 CIT 308 (1992), aff’d, 989 F. 2d 1201 (Fed. Cir. 1993); *Anheuser Busch Brewing Association v. The United States*, 207 U.S. 556 (1908) and *Uniroyal Inc. v. United States*, 542 F. Supp. 1026 (1982).

However, if the manufacturing or combining process is merely a minor one that leaves the identity of the article intact, a substantial transformation has not occurred. Uniroyal, Inc. v. United States, 3 CIT 220, 542 F. Supp. 1026, 1029 (1982), aff'd, 702 F.2d 1022 (Fed. Cir. 1983). Substantial transformation determinations are based on the totality of the evidence. See Headquarters Ruling (HQ) W968434, date January 17, 2007, citing Ferrostaal Metals Corp. v. United States, 11 CIT 470, 478, 664 F. Supp. 535, 541 (1987).

CBP has considered a scenario (in HQ H241177 dated December 3, 2013) in which a device was manufactured in one country, the software used to permit that device to operate was written in another country, and the installation of that software occurred in a third country. In that case, switches were assembled to completion in Malaysia and then shipped to Singapore, where EOS software developed in the United States at significant cost and over many years, was downloaded. It was claimed that the U.S.-origin EOS software enabled the imported switches to interact with other network switches through network switching and routing and allowed for the management of functions such as network performance monitoring and security, and access control; without this software, the imported devices could not function as Ethernet switches. CBP found that the software downloading performed in Singapore did not amount to programming. We explained that programming involves writing, testing, and implementing code necessary to make a computer function in a certain way. See Data General, *supra*; see also “computer program”, Encyclopedia Britannica (2013), (9/19/2013) <http://www.britannica.com/EBchecked/topic/130654/computer-program>, which explains, in part, that “a program is prepared by first formulating a task and then expressing it in an appropriate computer language, presumably one suited to the application.” While the programming occurred in the United States, the downloading occurred in Singapore. Given these facts, we found that the country where the last substantial transformation occurred was Malaysia, that is, where the major assembly processes were performed. Therefore, we found that the country of origin for purposes of U.S. Government procurement was Malaysia.

While counsel contends that the country of origin of the gas flow controllers should be the country where the firmware is downloaded because the gas flow controllers cannot function without the firmware being installed, that is not the correct test used to determine the country of origin of a product. The country of origin of a product is determined based on where the last substantial transformation occurs. It is CBP’s position that mere downloading of software that is written in another country is not sufficient to be considered a substantial transformation of that device. It is the opinion of this office that the manufacturing process in China renders the essence of the gas flow controllers as they are completely assembled and cannot be used for any other purpose. Therefore, the gas flow controllers are not substantially transformed by downloading the firmware in South Korea. The country of origin will be the country where the last substantial transformation occurs, which would be the country where the last major assembly of the gas flow controllers occurs. As a result, we find that the country of origin of the gas flow controllers will be China.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N321682

October 18, 2021

OT:RR:NC:N1:105

CATEGORY: Country of Origin

Beth Pride  
President  
BPE Global  
139 Pierce Street  
San Francisco, CA 94117

RE: The country of origin of a gas flow controller.

Dear Ms. Pride:

In your letter dated September 20, 2021, on behalf of your client, Pivotal Systems Corporation, you requested a country of origin ruling determination on a gas flow controller.

The merchandise under consideration is referred to as a gas flow controller (“GFC”). GFC’s are devices used to manage pressure, volume, temperature, and time during the semiconductor manufacturing process. The Pivotal Systems’ GFC’s are replacing the simpler Mass Flow Controllers (MFC) that have historically been used in the manufacturer of semiconductors. The GFCs are automatic regulating or controlling instruments that meet the National Institute of Standards and Technology (NIST) gas flow standards to provide a stable flow rate under varying pressure. The new High Flow GFCs flow up to 50 standard liters per minute (slm). The GFC consists of six main components: a machined metal baseblock, a printed circuit board (PCB), a temperature sensor, a pressure transducer, a gas flow controller valve, and a gas flow meter valve.

All Research and Development (R&D) for the Pivotal Systems GFCs are conducted in the United States by the Pivotal Systems team. No R&D occurs in China or in South Korea. In addition, both the operational firmware as well as the manufacturing firmware are created by the Pivotal System team in the United States.

Pivotal Systems employs a three-phase flow to build their GFCs. Phase 1 is the complete assembly process of the GFC hardware components that ensures the electronics are working. This includes the loading of the manufacturing firmware and the assembly of the six main components including a machined metal baseblock, a PCB, a temperature sensor, a pressure transducer, a gas flow controller valve, and a gas flow meter valve. The metal baseblock is machined to exact specifications in China. The baseblock provides the platform on which all other components of the GFC are mounted and contain the channels that form the main flow path of the gas. The external metal case is put on in China and is only removed in the rare case where the rework of the metal assembly is required. The baseblock and other components do not have

full functionality when exported from China but are able to be powered on for integration testing purposes. The complete assembly is further tested for gas leaks using a helium leak check. Phase 1, in its entirety, is performed in China.

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Phase 2 also includes the volume calibration, which occurs by measuring the volume of the metal baseblock against a traceable volume that is measured gravimetrically. The measurement is carried out on a station that has the two key reference standards. During the mapping stage the data that is collected is the unique properties of the individual GFC to determine the unique flow fingerprint of the GFC. The result of this measurement is input into a program that calculates the necessary calibration based on the following information that is unique to the individual GFC: volume measurement, valve information and the map of the pressure transducer. Each unit is then programmed with this individual map before being tested for flow at a steady pressure but changing volume during “Flow Verify”. Flow Verification validates that the unit flows accurately. It confirms the Volume Calculation and Mapping processes were successful and meet the NIST standards. Phase 2, in its’ entirety, is performed in South Korea.

Phase 3 is where the GFC is programmed to meet customer requirements and enables process gas flow. This process also occurs in South Korea. The customer configuration step transforms the GFC for positional valve sensing and controls specific to the gas type, flow range and communications protocols as specified by the customer. Customer-specific performance features are also added during this step. During the backup stage the GFC mapping specific to the customer/GFC is backed up to the Pivotal Systems servers in the US. Final steps include labeling, final inspections, and shipping.

The “country of origin” is defined in 19 CFR 134.1(b) as the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the ‘country of origin’ within the meaning of this part.

The courts have held that a substantial transformation occurs when an article emerges from a process with a new name, character or use different from that possessed by the article prior to processing. *United States v. Gibson-Thomsen Co., Inc.*, 27 CCPA 267, C.A.D. 98 (1940); *National Hand Tool Corp. v. United States*, 16 CIT 308 (1992), aff’d, 989 F. 2d 1201 (Fed. Cir. 1993); *Anheuser Busch Brewing Association v. The United States*, 207 U.S. 556 (1908) and *Uniroyal Inc. v. United States*, 542 F. Supp. 1026 (1982).

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N321682

October 18, 2021

OT:RR:NC:N1:105

CATEGORY: Country of Origin

Beth Pride  
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BPE Global  
139 Pierce Street  
San Francisco, CA 94117

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While counsel contends that the country of origin of the gas flow controllers should be the country where the firmware is downloaded because the gas flow controllers cannot function without the firmware being installed, that is not the correct test used to determine the country of origin of a product. The country of origin of a product is determined based on where the last substantial transformation occurs. It is CBP’s position that mere downloading of software that is written in another country is not sufficient to be considered a substantial transformation of that device. It is the opinion of this office that the manufacturing process in China renders the essence of the gas flow controllers as they are completely assembled and cannot be used for any other purpose. Therefore, the gas flow controllers are not substantially transformed by downloading the firmware in South Korea. The country of origin will be the country where the last substantial transformation occurs, which would be the country where the last major assembly of the gas flow controllers occurs. As a result, we find that the country of origin of the gas flow controllers will be China.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Jason Christie at [Jason.M.Christie@cbp.dhs.gov](mailto:Jason.M.Christie@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N322798

November 30, 2021

CLA-2-90:OT:RR:NC:N2:212

CATEGORY: Country of Origin

Richard Suh  
Toshiba Logistics America, Inc.  
511 Burning Tree Road  
Fullerton, CA 92833

RE: The country of origin of a TFT-LCD module

Dear Mr. Suh:

In your letter dated November 15, 2021, you requested a country of origin ruling on behalf of your client, JDI Display America, Inc.

The merchandise under consideration, identified by model number LZM999, is described as a thin film transistor (TFT)-liquid crystal display (LCD) module. The subject modules are comprised of multiple TFT-LCD cells bonded to one large glass cover. The modules further incorporate polarizers, backlight, driver and control printed circuit board (PCB), and a flexible PCB for connection. The finished modules will be incorporated into a wide variety of consumer display applications.

In your request, you state that the manufacturing process begins in Japan with the creation of the TFT-LCD cells. The TFT is first created by depositing transistors onto a substrate through chemical vapor deposition. The color filter is then manufactured by building a color matrix on a glass substrate. A layer of liquid crystals is then deposited between the color filter and TFT as the two pieces are bonded together. This process creates a sheet of TFT-LCD cells that will later be cut into individual cells.

The sheet of cells is then sent to China where it is cut into individual cells of varying sizes. These individual cells are then bonded to the PCBA, which contains the driver and control circuitry, before the polarizers, backlight, and flexible connection PCBA is attached. These individual cells are then bonded to one cover glass to create a complete module with multiple viewing areas.

The "country of origin" is defined in 19 CFR 134.1(b), in pertinent part, as "the country of manufacture, production, or growth of any article of foreign origin entering the United States. Further work or material added to an article in another country must effect a substantial transformation in order to render such other country the 'country of origin' within the meaning of this part."

For tariff purposes, the courts have held that a substantial transformation occurs when an article emerges from a process with a new name, character or use different from that possessed by the article prior to processing. *United States v. Gibson-Thomsen Co., Inc.*, 27 CCPA 267, C.A.D. 98 (1940); *National Hand Tool Corp. v. United States*, 16 CIT 308 (1992), aff'd, 989 F. 2d 1201 (Fed. Cir. 1993); *Anheuser Busch Brewing Association v. The United States*, 207 U.S. 556 (1908) and *Uniroyal Inc. v. United States*, 542 F. Supp. 1026 (1982).

Further, in *Energizer Battery, Inc. v. United States*, 190 F. Supp. 3d 1308 (2016), the Court of International Trade ("CIT") interpreted the meaning of "substantial transformation" as used in the Trade Agreements Act of 1979 ("TAA") for purposes of government procurement. In *Energizer*, the court reviewed the "name, character and use" test in determining whether a substantial transformation had occurred in determining the origin of a flashlight, and reviewed various court decisions involving substantial transformation determinations. The court noted, citing *Uniroyal, Inc. v. United States*, 3 C.I.T. 220, 226, 542 F. Supp. 1026, 1031, aff'd, 702 F.2d 1022 (Fed. Cir. 1983), that when "the post-importation processing consists of assembly, courts have been reluctant to find a change in character, particularly when the imported articles do not undergo a physical change." *Energizer* at 1318. In addition, the court noted, "when the end-use was pre-determined at the time of importation, courts have generally not found a change in use." *Energizer* at 1319, citing as an example, *National Hand Tool Corp. v. United States*, 16 C.I.T. 308, 310, aff'd 989 F.2d 1201 (Fed. Cir. 1993). Furthermore, courts have considered the nature of the assembly, i.e., whether it is a simple assembly or more complex, such that individual parts lose their separate identities and become integral parts of a new article.

Regarding the country of origin of the subject modules, it is our opinion that the completed TFT-LCD cells, regardless of where they are cut to size, impart the essential functional component of the finished device. The complex manufacturing process performed in Japan renders the end-use of the cells predetermined, as they could not be used for any other purpose than a display. Further, the assembly processes performed in China would not substantially transform the cells into new and different articles of commerce with a name, character, and use distinct from that of the exported good. Therefore, based upon the facts presented, the country of origin of the TFT-LCD module, part number LZM999, is Japan.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

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Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N324745

March 23, 2022

CLA-2-84:OT:RR:NC:N1:118

CATEGORY: Classification

TARIFF NO.: 8441.80.0000; 9903.88.01

Maria De Gannes  
A Customs Brokerage  
2750 NW 84th Ave.  
Doral, FL 33122

RE: The tariff classification of a disposable diaper making machine from China.

Dear Ms. De Gannes:

In your letter dated March 11, 2022, on behalf of your client, Apogee Medical Supplies USA, LLC, you requested a tariff classification ruling.

Your client plans to import a line of machinery that is identified as a Nateen diaper making machine. It is used to produce six sizes of disposable diapers with tape and/or ultrasound closures. The machine can produce from 150-300 diapers per minute. The raw materials used include fluff pulp, super absorbency polymer, tissue paper, nonwoven PE film, spandex, glue, Velcro tape and polypropylene tape. The interconnected line of machinery consists of the following components:

- 1-2 automatic holders for unwinding rolls of cellulosic pulp
- 1-2 drum units consisting of a hammermill used to break up the sheets of pulp into fluff and to form it into a layer
- 1-2 super absorbent application units equipped with an electronic scale
- Tissue paper layer application unit
- Transversal cut system used to cut the diaper material
- Nonwoven layer application unit
- Plastic layer application unit
- Glue system for gluing the tissue, nonwoven and plastic layers, as well as an elastic band and leg cuffs
- 1-2 closure tape application units
- Die cutting section to cut the material to the proper shape and size
- Folding unit to fold the completed diapers
- Vertical counter stacker that counts the diapers and forms them into stacks for subsequent packaging
- Electrical control system
- Compressed air system
- Dust filter system

- End conveying system

You have stated that the components will be imported disassembled in one shipment. The shipment will contain all of the components needed to assemble the finished Nateen diaper making machine.

You suggested classifying the Nateen diaper machine within subheading 8479.89.9499, Harmonized Tariff Schedule of the United States (HTSUS), which provides for machines and mechanical appliances having individual functions, not specified or included elsewhere (in chapter 84): other machines and mechanical appliances: other: other: other: other. We disagree.

Note 4 to Section XVI of the Harmonized Tariff Schedule of the United States (HTSUS), describes a functional unit as a machine or combination of machines consisting of individual components (whether separate or interconnected by piping, transmission devices, electric cables or by other devices) intended to contribute together to a clearly defined function covered by one or more of the headings in chapter 84 or chapter 85. The whole then falls to be classified in the heading appropriate to that function. The disposable diaper converting machine meets this description, with the clearly defined function of producing disposable diapers from paper pulp. This matter was resolved by the Court of International Trade (CIT) in National Presto Industries, Inc., v. United States, Slip Op. 11-84, Court No. 07-00245, dated July 18, 2011.

The applicable subheading for the Nateen diaper making machine will be 8441.80.0000, HTSUS, which provides for other machinery for making up paper pulp, paper or paperboard, including cutting machines of all kinds, and parts thereof. The general rate of duty will be free.

Pursuant to U.S. Note 20 to Subchapter III, Chapter 99, HTSUS, products of China classified under subheading 8441.80.0000, HTSUS, unless specifically excluded, are subject to an additional 25 percent ad valorem rate of duty. At the time of importation, you must report the Chapter 99 subheading, i.e., 9903.88.01, in addition to subheading 8441.80.0000, HTSUS, listed above.

The HTSUS is subject to periodic amendment, so you should exercise reasonable care in monitoring the status of goods covered by the Note cited above and the applicable Chapter 99 subheading. For background information regarding the trade remedy initiated pursuant to Section 301 of the Trade Act of 1974, including information on exclusions and their effective dates, you may refer to the relevant parts of the USTR and CBP websites, which are available at <https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions> and <https://www.cbp.gov/trade/remedies/301-certain-products-china> respectively.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, National Import Specialist Anthony E. Grossi at anthony.e.grossi@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N327121

August 8, 2022

CLA-2 OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8414.59.6560, 8503.00.9520, 8414.90.1080, 9817.00.96

James Burritt  
DSV Air & Sea  
1425 Corporate Center Drive, Suite 900  
San Diego, California 92154

RE: The classification of a blower assembly and components used within the blower assembly from China, Indonesia, or Malaysia.

Dear Mr. Burritt:

In your letter dated July 15, 2022, you requested a ruling, on the behalf of ResMed Motor Technologies, Inc., on the classification of a blower assembly and certain components used within the blower assembly. Technical information was provided with your submission.

The five items at issue are a Maxi-Tube II Blower Assembly, part number 000-0450-23, a Maxi-Tube II impeller, part number 292-0091, a Maxi-Tube II Stator Assembly, part number 010-0500-04, a Maxi-Tube II Rotor Assembly, part number 020-0468-33, and a Maxi-tube II Shield Tube, part number 095-0411-24.

The Maxi-Tube II Blower Assembly is designed to be used in ResMed's AirSense 10 Continuous Positive Air Pressure (CPAP) machine, which is used by individuals affected by sleep apnea and chronic respiratory conditions. The blower assembly is contoured to fit in the pneumatic block of the CPAP machine and features a custom-shaped inlet and outlet. The blower assembly is primarily made-up of two impellers, two covers that together function as a housing, interstage vanes, a motor, and a connector that solely connects to the CPAP's printed circuit board. In series, the blower completes two stages of pneumatic motion that allows the CPAP machine to provide the user a continuous and precise flow of air.

The applicable subheading for the Max-Tube II blower assembly, part number 000-0450-23, will be 8414.59.6560, Harmonized Tariff Schedule of the United States (HTSUS), which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; gas-tight biological safety cabinets, whether or not fitted with filters; parts thereof: Fans: Other: Other: Other: Other: Centrifugal. The general rate of duty is 2.3 percent ad valorem.

Based on the information provided, the motor module is comprised of the rotor assembly, the stator assembly, and the shield tube. Subject to this request, the rotor assembly, part number 020-0468-33, is comprised of a shaft, magnet, and spacers. The stator assembly, part number 010-0500-04, is comprised of a laminated stack assembly, a magnet, and a cable assembly.

In your submission, you suggest the rotor and stator assemblies, are classified within subheading 8503.00.6500, HTSUS. We agree. The rotor and stator assemblies are parts of an electric motor of heading 8501. By application of General Rule of Interpretation 1, and Section XVI, Note 2(b), parts suitable for use solely or principally with the machines of heading 8501 or 8502, are provided for in heading 8503, HTSUS.

As such, the applicable subheading of the rotor assembly, part number 020-0468-33, and the stator assembly, part number 010-0500-04, will be subheading 8503.00.6500, HTSUS, which provides for Parts suitable for use solely or principally with the machines of heading 8501 or 8502: Stator and rotors for the goods of heading 8501 or 8502: Other. The general rate of duty is 3 percent ad valorem.

The Maxi-Tube II shield tube, part number 095-0411-24, is composed of a low magnetically permeable and low electrically conductive plastic material. Once imported, you state that the rotor assembly is mounted into the shield tube, the stator assembly is pressed on the outside of the shield tube bore, and resin is applied to the windings to form the motor module assembly.

The Maxi-Tube II impeller, part number 292-0091, is designed to be solely used as part of the Maxi-Tube II blower assembly, as it is shaped to be pressed onto a shaft of the motor and positioned within the covers of the blower assembly. The Maxi-Tube II blower assembly employs two impellers. In use, the impellers rotate to generate a specific pneumatic flow and pressure that allows the blower assembly to provide a precise and steady flow of air.

In your letter, you suggest the shield tube and impeller are classified within subheading 8414.90.1080, HTSUS, which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; gas-tight biological safety cabinets, whether or not fitted with filters; parts thereof: Parts: Of fans (including blowers) and ventilating or recycling hoods. Regarding the impeller, we agree. The Explanatory Notes (ENs) of the Harmonized Commodity Description and coding System, constitute as the official interpretation of the Harmonized System at the international level. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading and are generally indicative of the proper interpretation of the HTSUS.

The ENs to heading 8414, in relevance, state that subject to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), parts of the goods of this heading are also classified here, e.g., impellers. As such, the impeller is classified as a part within heading 8414.

The applicable subheading for the Maxi-Tube II impeller, part number 292-0091, will be 8414.90.1080, HTSUS, which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; gas-tight biological safety cabinets, whether or not fitted with filters; parts thereof: Parts: Of fans (including blowers) and ventilating or recycling hoods: Other. The general rate of duty is 4.7 ad valorem.

Regarding the shield tube, we disagree. We would note that it houses the rotor assembly and provides as the structure to retain and align the rotor and stator assembly, which in our view is more specifically classified as a part of an electric motor rather than a part of blower assembly. As noted in Section XVI, Note 2(b), parts suitable for use solely or principally with the machines of heading 8501 or 8502, are provided for in heading 8503.

Therefore, the applicable subheading for the Maxi-Tube II shield tube, part number 095-0411-24, will be 8503.00.9520, HTSUS, which provides for Parts suitable for use solely or principally with the machines of heading 9501 or 8502: Other: Other: Parts of motors. The general rate of duty is 3 percent ad valorem.

In your submission, you request consideration of a secondary classification for the subject blower assembly, impeller, rotor assembly, stator assembly, and shield tube, under subheading 9817.00.96, HTSUS, which applies to articles and parts of articles specially designed or adapted for the use or benefit of the permanently or chronically physically or mentally handicapped.

Chapter 98, Subchapter XVII, U.S. Note 4(a), HTSUS, defines the term “blind or other physically or mentally handicapped persons” as including “any person suffering from a permanent or chronic physical or mental impairment which substantially limits one or more major life activities, such as caring for oneself, performing manual tasks, walking, seeing, hearing, speaking breathing, learning, or working.”

Referencing New York Ruling Letter N172236, dated July 22, 2011, CBP noted that CPAP machines used to treat individuals with chronic lung disease and other respiratory afflictions are specially designed and adapted for the benefit of persons suffering from a chronic physical impairment and thus, are eligible for secondary classification under subheading 9817.00.96, HTSUS.

The Maxi-Tube II blower assembly is essential to the functionality of the CPAP machine, as it allows the CPAP machine to provide a continuous flow of air to the user. It is shaped to fit in the suspension block of the CPAP machine, features a customized inlet and outlet, and is designed to interconnect with other components that are dedicated to make the CPAP machine itself, deliver a steady and precise air flow, e.g., the PCBA assembly.

The impeller, stator and rotor assemblies and shield tube are components of the Maxi-Tube II blower assembly. Headquarters ruling H024976, dated March 23, 2009, explains that parts of a system or assembly do not automatically qualify for classification in the subheading 9817.00.96. We must consider whether they would be considered parts that are specially designed or adapted for use with the system or assembly they are intended to be used with, in this case, the Maxi-Tube II blower assembly.

Based on the documentation provided, the electric motor, for which the rotor assembly, stator assembly and shield tube are dedicated parts, is exclusively used in the Maxi-Tube II blower assembly that is exclusively used in ResMed's CPAP machine. The electric motor is specifically designed to be incorporated into the blower assembly that is designed to be incorporated into the chassis of a specific CPAP machine, while engineered to operate at torque and speed, such that when integrated into the blower and its components, can produce a pressurized air flow to meet precise CPAP system requirements.

The impeller is constructed to be inserted within the housing of the Maxi-Tube II blower assembly and pressed onto the shaft of the motor, which is also exclusively used in the Maxi-Tube II blower assembly. Two impellers are used in the blower assembly and in use, each impeller rotates to generate a specified pneumatic flow and pressure that allows the blower assembly, and in turn the CPAP machine, to deliver a steady and precise flow of air to the user.

Thus, it can be concluded that the impeller, stator and rotor assemblies and shield tube are especially designed or adapted for use with the Maxi-Tube II blower assembly.

Therefore, as the chronic respiratory illness satisfies the description set forth in Chapter 98, Subchapter XVII, U.S. Note 4(a) and the aforementioned items are specially designed or adapted for use in a CPAP machine or blower assembly used in a CPAP machine, a secondary classification will apply to the blower assembly, part number 000-0450-23, the stator assembly, part number 010-0500-04, the rotor assembly, part number 020-0468-33, the shield tube, part number 095-0411-24, and the Maxi-Tube II impeller, part number 292-0091, under subheading 9817.00.96, HTSUS, which affords free duty treatment aside from any additional duties and/or applicable fees upon importation into the United States.

Please note that the additional duties imposed by headings 9903.88.01, 9903.88.02, 9903.88.03, and 9903.88.04 do not apply to goods for which entry is properly claimed under a provision of chapter 98 of the HTSUS, except for goods entered under headings 9802.00.40, 9802.00.50, 9802.00.60, and 9802.00.80.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. Part 177).

The holding set forth above applies only to the specific factual situation and merchandise

description as identified in the ruling request. This position is clearly set forth in Title 19, Code of Federal Regulations (CFR), Section 177.9(b)(1). This section states that a ruling letter is issued on the assumption that all of the information furnished in the ruling letter, whether directly, by reference, or by implication, is accurate and complete in every material respect. In the event that the facts are modified in any way, or if the goods do not conform to these facts at time of importation, you should bring this to the attention of U.S. Customs and Border Protection (CBP) and submit a request for a new ruling in accordance with 19 CFR 177.2. You should also be aware that the material facts described in the foregoing ruling may be subject to periodic verification by CBP.

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported.

If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.Martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N327121

August 8, 2022

CLA-2 OT:RR:NC:N1:102

CATEGORY: Classification

TARIFF NO.: 8414.59.6560, 8503.00.9520, 8414.90.1080, 9817.00.96

James Burritt  
DSV Air & Sea  
1425 Corporate Center Drive, Suite 900  
San Diego, California 92154

RE: The classification of a blower assembly and components used within the blower assembly from China, Indonesia, or Malaysia.

Dear Mr. Burritt:

In your letter dated July 15, 2022, you requested a ruling, on the behalf of ResMed Motor Technologies, Inc., on the classification of a blower assembly and certain components used within the blower assembly. Technical information was provided with your submission.

The five items at issue are a Maxi-Tube II Blower Assembly, part number 000-0450-23, a Maxi-Tube II impeller, part number 292-0091, a Maxi-Tube II Stator Assembly, part number 010-0500-04, a Maxi-Tube II Rotor Assembly, part number 020-0468-33, and a Maxi-tube II Shield Tube, part number 095-0411-24.

The Maxi-Tube II Blower Assembly is designed to be used in ResMed's AirSense 10 Continuous Positive Air Pressure (CPAP) machine, which is used by individuals affected by sleep apnea and chronic respiratory conditions. The blower assembly is contoured to fit in the pneumatic block of the CPAP machine and features a custom-shaped inlet and outlet. The blower assembly is primarily made-up of two impellers, two covers that together function as a housing, interstage vanes, a motor, and a connector that solely connects to the CPAP's printed circuit board. In series, the blower completes two stages of pneumatic motion that allows the CPAP machine to provide the user a continuous and precise flow of air.

The applicable subheading for the Max-Tube II blower assembly, part number 000-0450-23, will be 8414.59.6560, Harmonized Tariff Schedule of the United States (HTSUS), which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; gas-tight biological safety cabinets, whether or not fitted with filters; parts thereof: Fans: Other: Other: Other: Other: Centrifugal. The general rate of duty is 2.3 percent ad valorem.

Based on the information provided, the motor module is comprised of the rotor assembly, the stator assembly, and the shield tube. Subject to this request, the rotor assembly, part number 020-0468-33, is comprised of a shaft, magnet, and spacers. The stator assembly, part number 010-0500-04, is comprised of a laminated stack assembly, a magnet, and a cable assembly.

In your submission, you suggest the rotor and stator assemblies, are classified within subheading 8503.00.6500, HTSUS. We agree. The rotor and stator assemblies are parts of an electric motor of heading 8501. By application of General Rule of Interpretation 1, and Section XVI, Note 2(b), parts suitable for use solely or principally with the machines of heading 8501 or 8502, are provided for in heading 8503, HTSUS.

As such, the applicable subheading of the rotor assembly, part number 020-0468-33, and the stator assembly, part number 010-0500-04, will be subheading 8503.00.6500, HTSUS, which provides for Parts suitable for use solely or principally with the machines of heading 8501 or 8502: Stator and rotors for the goods of heading 8501 or 8502: Other. The general rate of duty is 3 percent ad valorem.

The Maxi-Tube II shield tube, part number 095-0411-24, is composed of a low magnetically permeable and low electrically conductive plastic material. Once imported, you state that the rotor assembly is mounted into the shield tube, the stator assembly is pressed on the outside of the shield tube bore, and resin is applied to the windings to form the motor module assembly.

The Maxi-Tube II impeller, part number 292-0091, is designed to be solely used as part of the Maxi-Tube II blower assembly, as it is shaped to be pressed onto a shaft of the motor and positioned within the covers of the blower assembly. The Maxi-Tube II blower assembly employs two impellers. In use, the impellers rotate to generate a specific pneumatic flow and pressure that allows the blower assembly to provide a precise and steady flow of air.

In your letter, you suggest the shield tube and impeller are classified within subheading 8414.90.1080, HTSUS, which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; gas-tight biological safety cabinets, whether or not fitted with filters; parts thereof: Parts: Of fans (including blowers) and ventilating or recycling hoods. Regarding the impeller, we agree. The Explanatory Notes (ENs) of the Harmonized Commodity Description and coding System, constitute as the official interpretation of the Harmonized System at the international level. The ENs, although not dispositive or legally binding, provide a commentary on the scope of each heading and are generally indicative of the proper interpretation of the HTSUS.

The ENs to heading 8414, in relevance, state that subject to the general provisions regarding the classification of parts (see the General Explanatory Note to Section XVI), parts of the goods of this heading are also classified here, e.g., impellers. As such, the impeller is classified as a part within heading 8414.

The applicable subheading for the Maxi-Tube II impeller, part number 292-0091, will be 8414.90.1080, HTSUS, which provides for Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; gas-tight biological safety cabinets, whether or not fitted with filters; parts thereof: Parts: Of fans (including blowers) and ventilating or recycling hoods: Other. The general rate of duty is 4.7 ad valorem.

Regarding the shield tube, we disagree. We would note that it houses the rotor assembly and provides as the structure to retain and align the rotor and stator assembly, which in our view is more specifically classified as a part of an electric motor rather than a part of blower assembly. As noted in Section XVI, Note 2(b), parts suitable for use solely or principally with the machines of heading 8501 or 8502, are provided for in heading 8503.

Therefore, the applicable subheading for the Maxi-Tube II shield tube, part number 095-0411-24, will be 8503.00.9520, HTSUS, which provides for Parts suitable for use solely or principally with the machines of heading 9501 or 8502: Other: Other: Parts of motors. The general rate of duty is 3 percent ad valorem.

In your submission, you request consideration of a secondary classification for the subject blower assembly, impeller, rotor assembly, stator assembly, and shield tube, under subheading 9817.00.96, HTSUS, which applies to articles and parts of articles specially designed or adapted for the use or benefit of the permanently or chronically physically or mentally handicapped.

Chapter 98, Subchapter XVII, U.S. Note 4(a), HTSUS, defines the term “blind or other physically or mentally handicapped persons” as including “any person suffering from a permanent or chronic physical or mental impairment which substantially limits one or more major life activities, such as caring for oneself, performing manual tasks, walking, seeing, hearing, speaking breathing, learning, or working.”

Referencing New York Ruling Letter N172236, dated July 22, 2011, CBP noted that CPAP machines used to treat individuals with chronic lung disease and other respiratory afflictions are specially designed and adapted for the benefit of persons suffering from a chronic physical impairment and thus, are eligible for secondary classification under subheading 9817.00.96, HTSUS.

The Maxi-Tube II blower assembly is essential to the functionality of the CPAP machine, as it allows the CPAP machine to provide a continuous flow of air to the user. It is shaped to fit in the suspension block of the CPAP machine, features a customized inlet and outlet, and is designed to interconnect with other components that are dedicated to make the CPAP machine itself, deliver a steady and precise air flow, e.g., the PCBA assembly.

The impeller, stator and rotor assemblies and shield tube are components of the Maxi-Tube II blower assembly. Headquarters ruling H024976, dated March 23, 2009, explains that parts of a system or assembly do not automatically qualify for classification in the subheading 9817.00.96. We must consider whether they would be considered parts that are specially designed or adapted for use with the system or assembly they are intended to be used with, in this case, the Maxi-Tube II blower assembly.

Based on the documentation provided, the electric motor, for which the rotor assembly, stator assembly and shield tube are dedicated parts, is exclusively used in the Maxi-Tube II blower assembly that is exclusively used in ResMed's CPAP machine. The electric motor is specifically designed to be incorporated into the blower assembly that is designed to be incorporated into the chassis of a specific CPAP machine, while engineered to operate at torque and speed, such that when integrated into the blower and its components, can produce a pressurized air flow to meet precise CPAP system requirements.

The impeller is constructed to be inserted within the housing of the Maxi-Tube II blower assembly and pressed onto the shaft of the motor, which is also exclusively used in the Maxi-Tube II blower assembly. Two impellers are used in the blower assembly and in use, each impeller rotates to generate a specified pneumatic flow and pressure that allows the blower assembly, and in turn the CPAP machine, to deliver a steady and precise flow of air to the user.

Thus, it can be concluded that the impeller, stator and rotor assemblies and shield tube are especially designed or adapted for use with the Maxi-Tube II blower assembly.

Therefore, as the chronic respiratory illness satisfies the description set forth in Chapter 98, Subchapter XVII, U.S. Note 4(a) and the aforementioned items are specially designed or adapted for use in a CPAP machine or blower assembly used in a CPAP machine, a secondary classification will apply to the blower assembly, part number 000-0450-23, the stator assembly, part number 010-0500-04, the rotor assembly, part number 020-0468-33, the shield tube, part number 095-0411-24, and the Maxi-Tube II impeller, part number 292-0091, under subheading 9817.00.96, HTSUS, which affords free duty treatment aside from any additional duties and/or applicable fees upon importation into the United States.

Please note that the additional duties imposed by headings 9903.88.01, 9903.88.02, 9903.88.03, and 9903.88.04 do not apply to goods for which entry is properly claimed under a provision of chapter 98 of the HTSUS, except for goods entered under headings 9802.00.40, 9802.00.50, 9802.00.60, and 9802.00.80.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on the World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. Part 177).

The holding set forth above applies only to the specific factual situation and merchandise

description as identified in the ruling request. This position is clearly set forth in Title 19, Code of Federal Regulations (CFR), Section 177.9(b)(1). This section states that a ruling letter is issued on the assumption that all of the information furnished in the ruling letter, whether directly, by reference, or by implication, is accurate and complete in every material respect. In the event that the facts are modified in any way, or if the goods do not conform to these facts at time of importation, you should bring this to the attention of U.S. Customs and Border Protection (CBP) and submit a request for a new ruling in accordance with 19 CFR 177.2. You should also be aware that the material facts described in the foregoing ruling may be subject to periodic verification by CBP.

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported.

If you have any questions regarding the ruling, contact National Import Specialist Sandra Martinez at Sandra.Martinez@cbp.dhs.gov.

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division

N329827

December 27, 2022

CLA-2-87:OT:RR:NC:N2:206

CATEGORY: Classification

TARIFF NO.: 8708.99.6890

James MacNeill, Sr. HTS Classification Analyst  
MacNeill Classification Compliance  
P.O. Box 1214  
Bristol, CT 06011

RE: The tariff classification of an e-axle from Germany

Dear Mr. McNeill:

In your letter dated December 12, 2022, you requested a tariff classification ruling. Pictures and other descriptive literature were submitted with your request.

The item under consideration has been identified as an E-Axle Assembly, which is used on electronic or hybrid vehicles. The e-axle assembly consists of two main components: the carrier housing and axle housing assemblies. The carrier housing assembly contains either one or two separate AC electric motors (depending on the e-axle version), a multi-speed shiftable planetary gear set functioning as a gearbox, and a drive-axle differential. The carrier housing also contains a heat exchange oil cooling module, engine and transmission coolant lines, oil pump and oil filter, temperature and speed sensors, electrical wire harness, high voltage connections and electrical busbar. The axle housing includes a steel housing for the differential and drive-axle half-shafts, two axle spindles for mounting wheel hubs, a tower bracket for connecting to the suspension system, and an axle bracket for a height control valve used in the suspension system. You state that the e-axle assembly does not include drive-axle half-shafts or wheel end assemblies in its imported condition. These components are attached to the e-axle assembly after importation.

In your letter you discussed possible classification of the e-axle assembly in heading 8501, Harmonized Tariff Schedule of the United States (HTSUS), which provides for electric motors, or subheading 8708.50, HTSUS, which for drive axles with differential, non-driving axles, and parts thereof. We believe none of the above suggestions are applicable to the item at issue.

Regarding heading 8501, HTSUS, ruling HQ 962289 states, "...a good consisting of a motor and the actual mechanism or a part of the mechanism the motor serves to power is

beyond the scope of heading 8501, and is classified with the machine, apparatus or device with which it is solely or principally used.” In our view, a differential is not considered a gearbox. Past rulings have accepted motors where the differential or transitional gearing are integrated into the motor, similar to control electronics, as they contribute to the operation of the motor itself and facilitate the output. However, in cases where a motor is merely attached to or integrated into another assembly having a differential, transmission, clutch, etc. then this type of arrangement is beyond the scope of heading 8501.

With regard to subheading 8708.50, HTSUS, we agree that the assembly at issue extends beyond drive axles with differential or non-driving axles. Although the assembly consists of a differential, there are other components, such as electric motors that pushes the assembly beyond the scope of subheading 8708.50.

The applicable subheading for the E-Axle Assembly will be 8708.99.6890, HTSUS, which provides for “Parts and accessories of the motor vehicles of headings 8701 to 8705: Other parts and accessories: Other: Other: Other: Other: Other: Other parts of power trains: Other.” The rate of duty will be 2.5% ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at <https://hts.usitc.gov/current>.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, please contact National Import Specialist Liana Alvarez at [liana.alvarez@cbp.dhs.gov](mailto:liana.alvarez@cbp.dhs.gov).

Sincerely,

Steven A. Mack  
Director  
National Commodity Specialist Division