

# **856 Ship Notice/Manifest**

X12/V4010/856 : 856 Ship Notice/Manifest

**Version: 1.0**

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# 856 Ship Notice/Manifest

## Functional Group=SH

**Purpose:** This Draft Standard for Trial Use contains the format and establishes the data contents of the Ship Notice/Manifest Transaction Set (856) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment. The transaction set enables the sender to describe the contents and configuration of a shipment in various levels of detail and provides an ordered flexibility to convey information. The sender of this transaction is the organization responsible for detailing and communicating the contents of a shipment, or shipments, to one or more receivers of the transaction set. The receiver of this transaction set can be any organization having an interest in the contents of a shipment or information about the contents of a shipment.

### Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	ST	Transaction Set Header	M	1			Must use
020	BSN	Beginning Segment for Ship Notice	M	1			Must use
040	DTM	Date/Time Reference	M	10			Must use

### Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
<b><u>LOOP ID - HL</u></b>							
010	HL	Hierarchical Level	M	1		C2/010	Must use
110	TD1	Carrier Details (Quantity and Weight)	M	20			Must use
120	TD5	Carrier Details (Routing Sequence/Transit Time)	M	12			Must use
150	REF	Reference Identification	M	>1			Must use
<b><u>LOOP ID - N1</u></b>							
220	N1	Name	M	1			Must use
230	N2	Additional Name Information	O	1			Used
240	N3	Address Information	M	2			Must use
250	N4	Geographic Location	M	1			Must use
<b><u>LOOP ID - HL</u></b>							
010	HL	Hierarchical Level	M	1		C2/010	Must use
050	PRF	Purchase Order Reference	M	1			Must use
150	REF	Reference Identification	M	>1			Must use
<b><u>LOOP ID - HL</u></b>							
010	HL	Hierarchical Level	M	1		C2/010	Must use
190	MAN	Marks and Numbers	M	>1			Must use
<b><u>LOOP ID - HL</u></b>							
010	HL	Hierarchical Level	M	1		C2/010	Must use
020	LIN	Item Identification	M	1			Must use
030	SN1	Item Detail (Shipment)	M	1			Must use
070	PID	Product/Item Description	M	200			Must use
150	REF	Reference Identification	O	>1			Used

**Summary:**

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	CTT	Transaction Totals	O	1		N3/010	Used
020	SE	Transaction Set Trailer	M	1			Must use

**Notes:**

- 3/010 Number of line items (CTT01) is the accumulation of the number of HL segments. If used, hash total (CTT02) is the sum of the value of units shipped (SN102) for each SN1 segment.

**Comments:**

- 2/010L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
- 2/010 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
- 2/010L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
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- 2/010L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
- 2/010 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

# ST Transaction Set Header

Pos: 010	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To indicate the start of a transaction set and to assign a control number

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ST01	143	Transaction Set Identifier Code	M	ID	3/3	Must use

**Description:** Code uniquely identifying a Transaction Set

**CodeList Summary** (Total Codes: 298, Included: 1)

### Code Name

856 Ship Notice/Manifest

ST02	329	Transaction Set Control Number	M	AN	4/9	Must use
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**Description:** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

## Semantics:

1. The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

# BSN Beginning Segment for Ship Notice

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 4

**User Option (Usage):** Must use

**Purpose:** To transmit identifying numbers, dates, and other basic data relating to the transaction set

## Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BSN01	353	Transaction Set Purpose Code	M	ID	2/2	Must use

**Description:** Code identifying purpose of transaction set

**CodeList Summary** (Total Codes: 65, Included: 2)

### Code Name

00 Original

06 Confirmation

#### User Note 1:

*Used for direct to customer shipments.*

BSN02	396	Shipment Identification	M	AN	2/30	Must use
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**Description:** A unique control number assigned by the original shipper to identify a specific shipment

**User Note 1:** Unique Shipment ID Number

BSN03	373	Date	M	DT	8/8	Must use
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**Description:** Date expressed as CCYYMMDD

**User Note 1:** ASN create date

BSN04	337	Time	M	TM	4/8	Must use
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**Description:** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)

**User Note 1:** ASN create time

## Syntax Rules:

1. C0706 - If BSN07 is present, then BSN06 is required.

## Semantics:

1. BSN03 is the date the shipment transaction set is created.
2. BSN04 is the time the shipment transaction set is created.
3. BSN06 is limited to shipment related codes.

## Comments:

1. BSN06 and BSN07 differentiate the functionality of use for the transaction set.

# DTM Date/Time Reference

Pos: 040	Max: 10
Heading - Mandatory	
Loop: N/A	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify pertinent dates and times

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
DTM01	374	Date/Time Qualifier	M	ID	3/3	Must use

**Description:** Code specifying type of date or time, or both date and time

**CodeList Summary** (Total Codes: 1112, Included: 1)

### Code Name

011 Shipped

#### **User Note 1:**

*Mandatory*

DTM02	373	Date	M	DT	8/8	Must use
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**Description:** Date expressed as CCYYMMDD

## Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

# Loop Hierarchical Level - Shipment Level

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
010	HL	Hierarchical Level	M	1		Must use
110	TD1	Carrier Details (Quantity and Weight)	M	20		Must use
120	TD5	Carrier Details (Routing Sequence/Transit Time)	M	12		Must use
150	REF	Reference Identification	M	>1		Must use
220		Loop N1	M		200	Must use
010		Loop HL	M		200000	Must use

# HL Hierarchical Level

Pos: 010	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	Hierarchical ID Number	M	AN	1/12	Must use

**Description:** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure

HL03	735	Hierarchical Level Code	M	ID	1/2	Must use
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**Description:** Code defining the characteristic of a level in a hierarchical structure

**CodeList Summary** (Total Codes: 170, Included: 1)

Code	Name
S	Shipment

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

**TD1****Carrier Details (Quantity and Weight)**

Pos: 110

Max: 20

Detail - Mandatory

Loop: HL

Elements: 5

**User Option (Usage):** Must use**Purpose:** To specify the transportation details relative to commodity, weight, and quantity**Element Summary:**

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TD101	103	Packaging Code	M	AN	3/5	Must use

**Description:** Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; if the Data Element is used, then Part 1 is always required

**User Note 1:** Valid codes are: CTN (Carton)  
CTN25 (Corrugated Carton)  
PLT (Pallet)  
PLT94 (Wood Pallet)

**CodeList Summary** (Total Codes: 148, Included: 2)

**Code Name**

CTN Carton

PLT Pallet

TD102	80	Lading Quantity	M	N0	1/7	Must use
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**Description:** Number of units (pieces) of the lading commodity

TD106	187	Weight Qualifier	O	ID	1/2	Used
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**Description:** Code defining the type of weight

**CodeList Summary** (Total Codes: 51, Included: 1)

**Code Name**

G Gross Weight

TD107	81	Weight	O	R	1/10	Used
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**Description:** Numeric value of weight

TD108	355	Unit or Basis for Measurement Code	O	ID	2/2	Used
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**Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

**CodeList Summary** (Total Codes: 794, Included: 2)

**Code Name**

KG Kilogram

LB Pound

**Syntax Rules:**

1. C0102 - If TD101 is present, then TD102 is required.
2. C0304 - If TD103 is present, then TD104 is required.
3. C0607 - If TD106 is present, then TD107 is required.
4. P0708 - If either TD107 or TD108 is present, then the other is required.
5. P0910 - If either TD109 or TD110 is present, then the other is required.

# TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 120	Max: 12
Detail - Mandatory	
Loop: HL	Elements: 1

**User Option (Usage):** Must use

**Purpose:** To specify the carrier and sequence of routing and provide transit time information

## Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD505	387	Routing	M	AN	1/35	Must use

**Description:** Free-form description of the routing or requested routing for shipment, or the originating carrier's identity

**User Note 1:** *Carrier Routing / Name*

## Syntax Rules:

1. R0204050612 - At least one of TD502, TD504, TD505, TD506 or TD512 is required.
2. C0203 - If TD502 is present, then TD503 is required.
3. C0708 - If TD507 is present, then TD508 is required.
4. C1011 - If TD510 is present, then TD511 is required.
5. C1312 - If TD513 is present, then TD512 is required.
6. C1413 - If TD514 is present, then TD513 is required.
7. C1512 - If TD515 is present, then TD512 is required.

## Semantics:

1. TD515 is the country where the service is to be performed.

## Comments:

1. When specifying a routing sequence to be used for the shipment movement in lieu of specifying each carrier within the movement, use TD502 to identify the party responsible for defining the routing sequence, and use TD503 to identify the actual routing sequence, specified by the party identified in TD502.

# REF Reference Identification

Pos: 150	Max: >1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**CodeList Summary** (Total Codes: 1503, Included: 3)

### Code Name

2I Tracking Number

BM Bill of Lading Number

CN Carrier's Reference Number (PRO/Invoice)

REF02	127	Reference Identification	M	AN	1/30	Must use
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.

### User Note 1:

*One of CarrierPro Number, Bill Of Lading Number, or Tracking number must be provided. A CarrierPro Number and tracking number should not both be sent, only one or the other.*

# Loop Name

Pos: 220 Repeat: 200  
Mandatory  
Loop: N1 Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify a party by type of organization, name, and code

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
220	N1	Name	M	1		Must use
230	N2	Additional Name Information	O	1		Used
240	N3	Address Information	M	2		Must use
250	N4	Geographic Location	M	1		Must use

**N1 Name**

<b>Pos:</b> 220	<b>Max:</b> 1
<b>Detail - Mandatory</b>	
<b>Loop:</b> N1	<b>Elements:</b> 4

**User Option (Usage):** Must use**Purpose:** To identify a party by type of organization, name, and code**Element Summary:**

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code	M	ID	2/3	Must use

**Description:** Code identifying an organizational entity, a physical location, property or an individual

**CodeList Summary** (Total Codes: 1312, Included: 2)

**Code Name**

SF Ship From

**User Note 1:***Mandatory*

ST Ship To

**User Note 1:***Mandatory*

N102	93	Name	M	AN	1/60	Must use
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**Description:** Free-form name

N103	66	Identification Code Qualifier	C	ID	1/2	Used
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**Description:** Code designating the system/method of code structure used for Identification Code (67)

**User Note 1:** *Mandatory when BSN01=00*

**CodeList Summary** (Total Codes: 215, Included: 1)

**Code Name**

92 Assigned by Buyer or Buyer's Agent

N104	67	Identification Code	C	AN	2/80	Used
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**Description:** Code identifying a party or other code

**User Note 1:** *Mandatory when BSN01=00*

**Syntax Rules:**

1. R0203 - At least one of N102 or N103 is required.
2. P0304 - If either N103 or N104 is present, then the other is required.

**Comments:**

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

## N2 Additional Name Information

Pos: 230	Max: 1
Detail - Optional	
Loop: N1	Elements: 1

**User Option (Usage):** Used

**Purpose:** To specify additional names or those longer than 35 characters in length

### Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N201	93	Name	O	AN	1/60	Used

**Description:** Free-form name

## N3 Address Information

Pos: 240	Max: 2
Detail - Mandatory	
Loop: N1	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify the location of the named party

### Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N301	166	Address Information	M	AN	1/55	Must use
		<b>Description:</b> Address information				
N302	166	Address Information	O	AN	1/55	Used
		<b>Description:</b> Address information				

## N4 Geographic Location

Pos: 250	Max: 1
Detail - Mandatory	
Loop: N1	Elements: 4

**User Option (Usage):** Must use

**Purpose:** To specify the geographic place of the named party

### Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N401	19	<b>City Name</b>	M	AN	2/30	Must use
<b>Description:</b> Free-form text for city name						
N402	156	<b>State or Province Code</b>	O	ID	2/2	Used
<b>Description:</b> Code (Standard State/Province) as defined by appropriate government agency						
N403	116	<b>Postal Code</b>	M	ID	3/15	Must use
<b>Description:</b> Code defining international postal zone code excluding punctuation and blanks (zip code for United States)						
N404	26	<b>Country Code</b>	O	ID	2/3	Used
<b>Description:</b> Code identifying the country						

### Syntax Rules:

1. C0605 - If N406 is present, then N405 is required.

### Comments:

1. A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2. N402 is required only if city name (N401) is in the U.S. or Canada.

# Loop Hierarchical Level - Order Level

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
010	HL	Hierarchical Level	M	1		Must use
050	PRF	Purchase Order Reference	M	1		Must use
150	REF	Reference Identification	M	>1		Must use
010		Loop HL	M		200000	Must use

# HL Hierarchical Level

Pos: 010	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	Hierarchical ID Number	M	AN	1/12	Must use
<b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure						
HL02	734	Hierarchical Parent ID Number	M	AN	1/12	Must use
<b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to						
HL03	735	Hierarchical Level Code	M	ID	1/2	Must use
<b>Description:</b> Code defining the characteristic of a level in a hierarchical structure						
<b>CodeList Summary</b> (Total Codes: 170, Included: 1)						
<b>Code Name</b>						
O Order						

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# PRF Purchase Order Reference

Pos: 050	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 1

**User Option (Usage):** Must use

**Purpose:** To provide reference to a specific purchase order

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PRF01	324	Purchase Order Number	M	AN	1/22	Must use

**Description:** Identifying number for Purchase Order assigned by the orderer/purchaser

## Semantics:

1. PRF04 is the date assigned by the purchaser to purchase order.

# REF Reference Identification

Pos: 150	Max: >1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**CodeList Summary** (Total Codes: 1503, Included: 2)

### Code Name

CO Customer Order Number

#### User Note 1:

*Required when BSN01 = 06*

IA Internal Vendor Number

#### User Note 1:

*Mandatory*

REF02	127	Reference Identification	M	AN	1/30	Must use
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.

# Loop Hierarchical Level - Pack Level

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
010	HL	Hierarchical Level	M	1		Must use
190	MAN	Marks and Numbers	M	>1		Must use
010		Loop HL	M		200000	Must use

# HL Hierarchical Level

Pos: 010	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	Hierarchical ID Number	M	AN	1/12	Must use
		<b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	Hierarchical Parent ID Number	M	AN	1/12	Must use
		<b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	Hierarchical Level Code	M	ID	1/2	Must use
		<b>Description:</b> Code defining the characteristic of a level in a hierarchical structure				
		<b>CodeList Summary</b> (Total Codes: 170, Included: 2)				
		<b>Code</b> <b>Name</b>				
		P Pack				
		T Shipping Tare				

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# MAN Marks and Numbers

Pos: 190	Max: >1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To indicate identifying marks and numbers for shipping containers

## Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MAN01	88	Marks and Numbers Qualifier	M	ID	1/2	Must use

**Description:** Code specifying the application or source of Marks and Numbers (87)

**CodeList Summary** (Total Codes: 20, Included: 2)

### Code Name

CP Carrier-Assigned Package ID Number

#### User Note 1:

*Required when BSN01 = 06*

GM SSCC-18 and Application Identifier

#### User Note 1:

*Required when BSN01 = 00*

MAN02	87	Marks and Numbers	C	AN	1/48	Used
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**Description:** Marks and numbers used to identify a shipment or parts of a shipment

## Syntax Rules:

1. P0405 - If either MAN04 or MAN05 is present, then the other is required.
2. C0605 - If MAN06 is present, then MAN05 is required.

## Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

## Comments:

1. When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2. MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers.
3. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.

## Loop Hierarchical Level - Item Level

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

### Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
010	HL	Hierarchical Level	M	1		Must use
020	LIN	Item Identification	M	1		Must use
030	SN1	Item Detail (Shipment)	M	1		Must use
070	PID	Product/Item Description	M	200		Must use
150	REF	Reference Identification	O	>1		Used

# HL Hierarchical Level

Pos: 010	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	Hierarchical ID Number	M	AN	1/12	Must use
		<b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	Hierarchical Parent ID Number	M	AN	1/12	Must use
		<b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	Hierarchical Level Code	M	ID	1/2	Must use
		<b>Description:</b> Code defining the characteristic of a level in a hierarchical structure				
		<b>CodeList Summary</b> (Total Codes: 170, Included: 1)				
		<b>Code</b> <b>Name</b>				
		I              Item				

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# LIN Item Identification

Pos: 020	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 7

**User Option (Usage):** Must use

**Purpose:** To specify basic item identification data

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
LIN01	350	Assigned Identification	M	AN	1/20	Must use
<b>Description:</b> Alphanumeric characters assigned for differentiation within a transaction set						
LIN02	235	Product/Service ID Qualifier	M	ID	2/2	Must use
<b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234)						
<b>CodeList Summary</b> (Total Codes: 477, Included: 2)						
<b>Code Name</b>						
BP Buyer's Part Number						
VP Vendor's (Seller's) Part Number						
LIN03	234	Product/Service ID	M	AN	1/48	Must use
<b>Description:</b> Identifying number for a product or service						
LIN04	235	Product/Service ID Qualifier	M	ID	2/2	Must use
<b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234)						
<b>CodeList Summary</b> (Total Codes: 477, Included: 2)						
<b>Code Name</b>						
BP Buyer's Part Number						
VP Vendor's (Seller's) Part Number						
LIN05	234	Product/Service ID	M	AN	1/48	Must use
<b>Description:</b> Identifying number for a product or service						
LIN06	235	Product/Service ID Qualifier	O	ID	2/2	Used
<b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234)						
<b>CodeList Summary</b> (Total Codes: 477, Included: 1)						
<b>Code Name</b>						
UP U.P.C. Consumer Package Code (1-5-5-1)						
LIN07	234	Product/Service ID	O	AN	1/48	Used
<b>Description:</b> Identifying number for a product or service						

## Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.

4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.
9. P2021 - If either LIN20 or LIN21 is present, then the other is required.
10. P2223 - If either LIN22 or LIN23 is present, then the other is required.
11. P2425 - If either LIN24 or LIN25 is present, then the other is required.
12. P2627 - If either LIN26 or LIN27 is present, then the other is required.
13. P2829 - If either LIN28 or LIN29 is present, then the other is required.
14. P3031 - If either LIN30 or LIN31 is present, then the other is required.

**Semantics:**

1. LIN01 is the line item identification

**Comments:**

1. See the Data Dictionary for a complete list of IDs.
2. LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

# SN1 Item Detail (Shipment)

Pos: 030	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify line-item detail relative to shipment

## Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN102	382	Number of Units Shipped	M	R	1/10	Must use

**Description:** Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set

SN103	355	Unit or Basis for Measurement Code	M	ID	2/2	Must use
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**Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

**CodeList Summary** (Total Codes: 794, Included: 9)

### Code Name

CF	Cubic Feet
EA	Each
FT	Foot
HU	Hundred
LB	Pound
PC	Piece
PK	Package
PR	Pair
RL	Roll

## Syntax Rules:

1. P0506 - If either SN105 or SN106 is present, then the other is required.

## Semantics:

1. SN101 is the ship notice line-item identification.

## Comments:

1. SN103 defines the unit of measurement for both SN102 and SN104.

# PID Product/Item Description

Pos: 070	Max: 200
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To describe a product or process in coded or free-form format

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PID01	349	Item Description Type	M	ID	1/1	Must use
<b>Description:</b> Code indicating the format of a description						
<b>CodeList Summary</b> (Total Codes: 3, Included: 1)						
<b>Code Name</b>						
F Free-form						
PID02	750	Product/Process Characteristic Code	M	ID	2/3	Must use
<b>Description:</b> Code identifying the general class of a product or process characteristic						
<b>CodeList Summary</b> (Total Codes: 217, Included: 1)						
<b>Code Name</b>						
08 Product						
PID05	352	Description	M	AN	1/80	Must use
<b>Description:</b> A free-form description to clarify the related data elements and their content						

## Syntax Rules:

1. C0403 - If PID04 is present, then PID03 is required.
2. R0405 - At least one of PID04 or PID05 is required.
3. C0703 - If PID07 is present, then PID03 is required.
4. C0804 - If PID08 is present, then PID04 is required.
5. C0905 - If PID09 is present, then PID05 is required.

## Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4. PID09 is used to identify the language being used in PID05.

## Comments:

1. If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2. Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3. PID07 specifies the individual code list of the agency specified in PID03.

# REF Reference Identification

Pos: 150	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**CodeList Summary** (Total Codes: 1503, Included: 2)

### Code Name

LT Lot Number

SE Serial Number

REF02	127	Reference Identification	M	AN	1/30	Must use
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.

# CTT Transaction Totals

Pos: 010	Max: 1
Summary - Optional	
Loop: N/A	Elements: 1

**User Option (Usage):** Used

**Purpose:** To transmit a hash total for a specific element in the transaction set

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CTT01	354	Number of Line Items	O	N0	1/6	Used

**Description:** Total number of line items in the transaction set

## Syntax Rules:

1. P0304 - If either CTT03 or CTT04 is present, then the other is required.
2. P0506 - If either CTT05 or CTT06 is present, then the other is required.

## Comments:

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.

# SE Transaction Set Trailer

Pos: 020	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SE01	96	<b>Number of Included Segments</b>	M	N0	1/10	Must use
<b>Description:</b> Total number of segments included in a transaction set including ST and SE segments						
SE02	329	<b>Transaction Set Control Number</b>	M	AN	4/9	Must use
<b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set						

## Comments:

1. SE is the last segment of each transaction set.