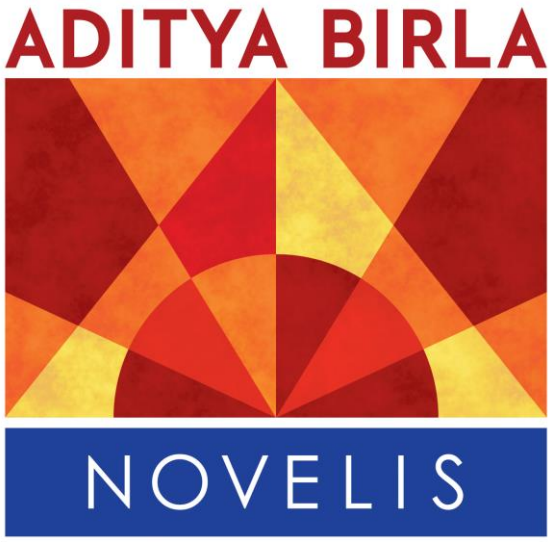

Novelis North America (NNA)

Inbound EDI 856-Advance Ship Notice
ANSI X12 v4010
EDI Implementation Guide

Author: **Novelis B2B/EDI Department**

EDI Direction: **From Trading Partner to Novelis**

Publication: **Release 1.7 (10/20/2016)**

Revision History

Version	Date	Author	Comments
1.0	04/23/2014	Catherine Munro	Initial issue
1.1	05/15/2015	Catherine Munro	• Shipment Level – Added segment REF(EQ) • Shipment Level – Added elements TD503/TD302 • Order Level – Modified Notes in PRF • Order Level – Modified Notes in REF(IL)
1.2	7/8/2015	Catherine Munro	• Header Level – Modified element for mandatory time – DTM03 '017'
1.3	10/19/2015	Catherine Munro	• Item level – MEA03. Additional Notes
1.4	10/27/2015	Carlos Garcia	• Header Level – Modified BSN01 to include Scrap ASNs • Order Level – Modified LIN segment notes and LIN03 notes to include scrap ASNS • Order Level – Modified REF02 notes for scrap ASNs • Item Level – Added PID segment for Alloy • Item Level – Modified REF*LT/BT to state as 'Mandatory'. • Item Level – Added Scrap ASN example
1.5	12/07/2015	Catherine Munro	• Corrected Novelis' ISA/GS IDs
1.6	05/02/2016	Catherine Munro	• TD503 – 3rd Party SCAC (SCAC of Logistics Carrier arranging the transportation) • TD302 – Actual SCAC of Transporting Carrier
1.7	10/20/2016	Melissa Hansen	• Revisions/Updates for Vendor ASN and corrections for Toller/Whse

Table of Contents

Document Overview

This document outlines the Novelis requirements for the inbound 856 ANSI X12 4010 Advance Ship Notice transaction set.

The information in this document is confidential and distributed only to persons for whom it is intended. This information is for the exclusive use of the Novelis Company, its members, and business partners. This specification is subject to further changes at the discretion of Novelis Inc.

Business Application: Novelis Quality Management (SAP)

EDI Usage: Novelis Inbound 856 X12 4010

Business Rules:

An 856 Advance Ship Notice message is used to electronically communicate the contents of a shipment to another trading partner. It is sent in advance of a shipment arriving at the receiver's facility.
The inbound 856 ASN will include details:

- Shipment level information such as carrier information.
- Order level such as purchase order numbers
- Item level information such as product codes, items and quantities.

All items highlighted in grey in this document are notes added by Novelis and are not standard

Validation:

Not all segments are necessary on every 856 so please refer to notes within the guide as well as X12 samples at the end of the document

Technical Parameters:

Novelis is using the following values for Sender/Receiver IDs:

Production – ISA Qualifier: 09 / ISA Sender/Receiver ID: 0015049340011G
GS Sender/Receiver ID: 0015049340011G

Test - ISA Qualifier: ZZ / ISA Sender/Receiver ID: NOVLSTEST
GS Sender/Receiver ID: NOVLSTEST

Novelis default EDI delimiters characters and EBCIDIC values:

1. Segment Terminator - punctuation mark “” (carriage return/line feed - Hex 0D0A)
2. Element Separator - punctuation mark “*” (asterisk character - Hex 2A)
3. Sub-Element Separator - punctuation mark “~” (tilde character - Hex 7E)
4. Repetition Separator – punctuation mark “|” (pipe character – Hex 7C)
5. Decimal Indicator - punctuation mark “.” (dot character - Hex 2E)

Novelis Interchange Control Structure details can be found in the accompanying guide name ‘NVLS_ICS4010_Envelope.rtf’

Functional Acknowledgments:

The 997 (Functional Acknowledgments) are used by Novelis to verify receipt of EDI documents sent to our suppliers. Novelis will also create the 997 to acknowledge receipt of your documents within 24 hours. If a 997 is not received for your EDI transmission(s), please contact Novelis EDI Support @ EDI_Support@novelis.com.

How to contact Novelis EDI Support:

For answers to any questions regarding this Implementation Guide, contact Novelis EDI Support @ EDI_Support@novelis.com.

856 Ship Notice/Manifest

Functional Group ID=SH

Introduction:

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:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
M	010	ST	Transaction Set Header	M	1		
M	020	BSN	Beginning Segment for Ship Notice	M	1		
M	040	DTM	Date/Time Reference	M	10		
M	040	DTM	Date/Time Reference	M	10		

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID - HL			200000	
M	010	HL	Hierarchical Level (Shipment)	M	1		c1
M	080	MEA	Measurements	M	39		
Used	080	MEA	Measurements	O	39		
M	110	TD1	Carrier Details (Quantity and Weight)	M	20		
M	120	TD5	Carrier Details (Routing Sequence/Transit Time)	M	12		
M	130	TD3	Carrier Details (Equipment)	M	12		
M	150	REF	Reference Identification	M	>1		
Rec	210	FOB	F.O.B. Related Instructions	O	1		
			LOOP ID - N1			200	
M	220	N1	Name	M	1		
			LOOP ID - HL			200000	
M	010	HL	Hierarchical Level (Order)	M	1		
Must Use	020	LIN	Item Identification	O	1		
Must Use	030	SN1	Item Detail (Order)	O	1		
M	050	PRF	Purchase Order Reference (Order)	M	1		
M	150	REF	Reference Identification	M	>1		

			LOOP ID - HL		200000	
M	010	HL	Hierarchical Level (Item)	M	1	
Used	030	SN1	Item Detail (Item)	O	1	
Used	070	PID	Product/Item Description	O	200	
M	080	MEA	Measurements	M	39	
M	080	MEA	Measurements	M	39	
Used	080	MEA	Measurements	O	39	
M	150	REF	Reference Identification	M	>1	
Used	200	DTM	Date/Time Reference	O	10	

Summary:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
M	010	CTT	Transaction Totals	M	1		n1
M	020	SE	Transaction Set Trailer	M	1		

Transaction Set Notes

1. 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.

Transaction Set Comments

1. The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

Segment: ST Transaction Set Header

Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:
Business Rules: Variable Name: STST
Notes: *ST*856*0001*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set **856 Ship Notice/Manifest**	**M ID 3/3**
M	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M AN 4/9**

Segment: BSN Beginning Segment for Ship Notice

Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To transmit identifying numbers, dates, and other basic data relating to the transaction set
Syntax Notes: **1** If BSN07 is present, then BSN06 is required.
Semantic Notes: **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.
Notes: *BSN*00*56789*20160817*1500*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**BSN01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set **00** **Original** *For Standard Shipments - BSN*00* **32** **Recovery/Deduction** *For Scrap Shipments - BSN*32*	**M ID 2/2**
M	**BSN02**	**396**	**Shipment Identification** A unique control number assigned by the original shipper to identify a specific shipment	**M AN 2/30**
M	**BSN03**	**373**	**Date** Date expressed as CCYYMMDD	**M DT 8/8**
M	**BSN04**	**337**	**Time** 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)	**M TM 4/8**

Segment: DTM Date/Time Reference

Position: 040
Loop:
Level: Heading
Usage: Mandatory
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:
Notes: *DTM*011*20160817*1500*GM*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	**DTM01**	**374**	**Date/Time Qualifier**	**M**	**ID 3/3**
			Code specifying type of date or time, or both date and time		
			Date and Time Shipment has been issued.		
			011 Shipped		
M	**DTM02**	**373**	**Date**	**M**	**DT 8/8**
			Date expressed as CCYYMMDD		
Must Use	**DTM03**	**337**	**Time**	**O**	**TM 4/8**
			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)		
Must Use	**DTM04**	**623**	**Time Code**	**O**	**ID 2/2**
			Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow		
			CT Central Time		
			ET Eastern Time		
			GM Greenwich Mean Time		
			a.k.a. UTC (Coordinated Universal Time)		
			MT Mountain Time		
			PT Pacific Time		
			UT Universal Time Coordinate		
			a.k.a. GMT (Greenwich Mean Time)		

Segment: DTM Date/Time Reference

Position: 040
Loop:
Level: Heading
Usage: Mandatory
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:
Notes: *DTM*017*20160820*1600*ET*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time *Date and Time Shipment is expected to be delivered* **017** **Estimated Delivery**	**X ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**
Must Use	**DTM03**	**337**	**Time** 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)	**X TM 4/8**
Must Use	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow **CT** **Central Time** **ET** **Eastern Time** **GM** **Greenwich Mean Time** *a.k.a. UTC (Coordinated Universal Time)* **MT** **Mountain Time** **PT** **Pacific Time** **UT** **Universal Time Coordinate** *a.k.a. GMT (Greenwich Mean Time)*	**O ID 2/2**

Segment: HL Hierarchical Level (Shipment)

Position: 010
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments
Syntax Notes:
Semantic Notes:
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.
The HL segment defines a top-down/left-right ordered structure.

2 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.

3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.

4 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.

5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

Notes: *HL*1**S*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**HL01**	**628**	**Hierarchical ID Number** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	**M AN 1/12**
M	**HL03**	**735**	**Hierarchical Level Code** Code defining the characteristic of a level in a hierarchical structure **S Shipment**	**M ID 1/2**

Segment: MEA Measurements

Position: 080
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 39
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
Notes: *Used for Net, Gross and Tare Weights*

Example Segments:

*MEA*WT*G*13572*LB*
*MEA*WT*N*12900*LB*
*MEA*WT*T*672*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies **WT** **Weights**	**M ID 2/2**
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies **G** **Gross Weight** *Mandatory - Summary Level Gross Weight (Total Net + Total Tare)* **N** **Actual Net Weight** *Mandatory - Summary Level Net Weight* **T** **Tare Weight** *Optional - Summary Level Tare Weight*	**X ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement *Round to zero decimals*	**X R 1/20**
Must Use	**MEA04**	**C001**	**Composite Unit of Measure** To identify a composite unit of measure (See Figures Appendix for examples of use)	**X**
Must Use	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken **KG** **Kilogram** **LB** **Pound**	**X ID 2/2**

Segment: MEA Measurements

Position: 080
Loop: HL Mandatory
Level: Detail
Usage: Optional
Max Use: 39
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
Notes: *Used for blanks or other non-coil parts.*

*MEA*CT*NOR*750*EA*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Used	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies **CT Counts**	**O ID 2/2**
Used	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies **NOR Number of References**	**O ID 1/3**
Used	**MEA03**	**739**	**Measurement Value** The value of the measurement *Round to zero decimals*	**O R 1/20**
Used	**MEA04**	**C001**	**Composite Unit of Measure** To identify a composite unit of measure (See Figures Appendix for examples of use)	**O**
D	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken **EA Each**	**X ID 2/2**

Segment: TD1 Carrier Details (Quantity and Weight)

Position: 110
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 20
Purpose: To specify the transportation details relative to commodity, weight, and quantity
Syntax Notes:
1 If TD101 is present, then TD102 is required.
2 If TD103 is present, then TD104 is required.
3 If TD106 is present, then TD107 is required.
4 If either TD107 or TD108 is present, then the other is required.
5 If either TD109 or TD110 is present, then the other is required.
Semantic Notes:
Comments:
Notes: *Example Segments:*
*TD1*LIF52*23*
*TD1*PLT90*5*
*TD1*COL52*4*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	**TD101**	**103**	**Packaging Code**	**M**	**AN 3/5**
			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		
			This element consists of two parts. Part 1 is a 3 character Alpha code from the element code value list. Part 2 is a 2 digit value from the element code value list. The concatenation of the codes from Part 1 and Part 2 willl be used as the 5 digit TD101 value. The codes below are the most commonly used but any valid X12 103 Code values will be accepted.		
			COL **Coil**		
			LIF **Lifts**		
			PLT **Pallet**		
			01 **Aluminum**		
			52 **Iron or Steel**		
			90 **Standard**		
M	**TD102**	**80**	**Lading Quantity**	**M**	**N0 1/7**
			Number of units (pieces) of the lading commodity		
Used	**TD106**	**187**	**Weight Qualifier**	**O**	**ID 1/2**
			Code defining the type of weight		
			G **Gross Weight**		
			N **Actual Net Weight**		
Used	**TD107**	**81**	**Weight**	**X**	**R 1/10**
			Numeric value of weight		
Used	**TD108**	**355**	**Unit or Basis for Measurement Code**	**X**	**ID 2/2**
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		
			01 **Actual Pounds**		
			50 **Actual Kilograms**		
			KG **Kilogram**		
			LB **Pound**		

Segment: TD5 Carrier Details (Routing Sequence/Transit Time)

Position: 120
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 12
Purpose: To specify the carrier and sequence of routing and provide transit time information
Syntax Notes:
1 At least one of TD502 TD504 TD505 TD506 or TD512 is required.
2 If TD502 is present, then TD503 is required.
3 If TD507 is present, then TD508 is required.
4 If TD510 is present, then TD511 is required.
5 If TD513 is present, then TD512 is required.
6 If TD514 is present, then TD513 is required.
7 If TD515 is present, then TD512 is required.
Semantic Notes:
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.
Notes: *Example Segments:*

*TD5*B*2*AGGP*M*Route Description*Status Code*
*TD5*B*2*TITA*M*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**TD501**	**133**	**Routing Sequence Code** Code describing the relationship of a carrier to a specific shipment movement *Either B or O Routing Sequence Code is required.* **B** **Origin/Delivery Carrier (Any Mode)** **O** **Origin Carrier (Air, Motor, or Ocean)**	**M ID 1/2**
Must Use	**TD502**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) **2** **Standard Carrier Alpha Code (SCAC)**	**X ID 1/2**
M	**TD503**	**67**	**Identification Code** Code identifying a party or other code *NOTE: This is the SCAC of the entity that arranges the transportation. This can be a logistics company, warehouse or toller.*	**M AN 2/80**
Must Use	**TD504**	**91**	**Transportation Method/Type Code** Code specifying the method or type of transportation for the shipment **DW** **Driveaway, Truckaway, Towaway** **DoD policy includes all three terms in one. They mean collectively, a transportation method whereby a vehicle is moved under its own power by a driver, or loaded into or upon a carrier's equipment, or towed by carrier's equipment** *Used at Novelis to indicate a trip title change.* **M** **Motor (Common Carrier)**	**X ID 1/2**
Used	**TD505**	**387**	**Routing** Free-form description of the routing or requested routing for shipment, or the originating carrier's identity	**X AN 1/35**

Used	**TD506**	**368**	**Shipment/Order Status Code**	**X**	**ID 2/2**
			Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction		

Segment: TD3 Carrier Details (Equipment)

Position: 130
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 12
Purpose: To specify transportation details relating to the equipment used by the carrier
Syntax Notes:
1 Only one of TD301 or TD310 may be present.
2 If TD302 is present, then TD303 is required.
3 If TD304 is present, then TD305 is required.
4 If either TD305 or TD306 is present, then the other is required.
Semantic Notes:
Comments:
Notes: *Example segments*

*TD3*TL*AGGP*1142*
*TD3*TL**53234*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**TD301**	**40**	**Equipment Description Code** Code identifying type of equipment used for shipment **OT** **Open-top/flatbed trailer** **PT** **Protected Trailer** **TL** **Trailer (not otherwise specified)**	**M ID 2/2**
Used	**TD302**	**206**	**Equipment Initial** Prefix or alphabetic part of an equipment unit's identifying number *NOTE - This is the SCAC of the actual carrier (if a 3rd party Carrier SCAC is used and is noted in the TD503, then send the SCAC of the 3rd party Carrier)*	**O AN 1/4**
M	**TD303**	**207**	**Equipment Number (Container ID/Trailer ID)** Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred) *Trailer or Truck ID*	**M AN 1/10**

Segment: REF Reference Identification

Position: 150
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: >1
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:
Notes:

*REF*BM*8659501*
*REF*MB*86595*
*REF*PK*ABCDEF*
*REF*EQ*FB*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification **BM** **Bill of Lading Number** **EQ** **Equipment Number** *Use 'FB' in REF02 where REF01= EQ (see example noted in segment notes)* **MB** **Master Bill of Lading** **PK** **Packing List Number**	**M ID 2/3**
R	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**O AN 1/30**

Segment: FOB F.O.B. Related Instructions

Position: 210
Loop: HL Mandatory
Level: Detail
Usage: Optional (Recommended)
Max Use: 1
Purpose: To specify transportation instructions relating to shipment
Syntax Notes:
1 If FOB03 is present, then FOB02 is required.
2 If FOB04 is present, then FOB05 is required.
3 If FOB07 is present, then FOB06 is required.
4 If FOB08 is present, then FOB09 is required.
Semantic Notes:
1 FOB01 indicates which party will pay the carrier.
2 FOB02 is the code specifying transportation responsibility location.
3 FOB06 is the code specifying the title passage location.
4 FOB08 is the code specifying the point at which the risk of loss transfers. This may be different than the location specified in FOB02/FOB03 and FOB06/FOB07.
Comments:
Notes: *Example Segment:*

*FOB*PD*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Used	**FOB01**	**146**	**Shipment Method of Payment** Code identifying payment terms for transportation charges **CC** **Collect** **PD** **Prepaid by Processor** **Identifies the processor as the party responsible for transportation charges for the shipment** **TP** **Third Party Pay**	**O ID 2/2**

Segment: N1 Name

Position: 220
Loop: N1 Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes:
1 At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
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.
Notes: *Example segments:*

*N1*ST*Ship To Name*1*003456789*
*N1*ST*Ship To Name*9*003456789001*
*N1*ST*Ship To Name*92*14320*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual *Ship to, Ship From and Supplier loops are MANDATORY (ST, SF, SU) Bill To, Manufacturer, Outside processor and Ultimate Intended Party are OPTIONAL (BT, MF, OU, MA)* **BT** Bill-to-Party **MA** Party for whom Item is Ultimately Intended **MF** Manufacturer of Goods **OU** Outside Processor A resource extraneous to primary material provider that performs additional material processing prior to delivery of the material to the primary provider's customer **SF** Ship From **ST** Ship To **SU** Supplier/Manufacturer	**M ID 2/3**
Must Use	**N102**	**93**	**Name** Free-form name	**O AN 1/60**
Must Use	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) **1** D-U-N-S Number, Dun & Bradstreet **9** D-U-N-S+4, D-U-N-S Number with Four Character Suffix **92** Assigned by Buyer or Buyer's Agent **ZZ** Mutually Defined	**X ID 1/2**
Must Use	**N104**	**67**	**Identification Code** Code identifying a party or other code *This should be a partner DUNS Number unless mutually defined.*	**X AN 2/80**

Segment: HL Hierarchical Level (Order)

Position: 010
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments
Syntax Notes:
Semantic Notes:
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.
The HL segment defines a top-down/left-right ordered structure.

2 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.

3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.

4 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.

5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

Notes: *HL*2*1*O*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**HL01**	**628**	**Hierarchical ID Number** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	**M AN 1/12**
M	**HL02**	**734**	**Hierarchical Parent ID Number** Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	**M AN 1/12**
M	**HL03**	**735**	**Hierarchical Level Code** Code defining the characteristic of a level in a hierarchical structure **O Order**	**M ID 1/2**

Segment: LIN Item Identification

Position: 020
Loop: HL Mandatory
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify basic item identification data
Syntax Notes:
1 If either LIN04 or LIN05 is present, then the other is required.
2 If either LIN06 or LIN07 is present, then the other is required.
3 If either LIN08 or LIN09 is present, then the other is required.
4 If either LIN10 or LIN11 is present, then the other is required.
5 If either LIN12 or LIN13 is present, then the other is required.
6 If either LIN14 or LIN15 is present, then the other is required.
7 If either LIN16 or LIN17 is present, then the other is required.
8 If either LIN18 or LIN19 is present, then the other is required.
9 If either LIN20 or LIN21 is present, then the other is required.
10 If either LIN22 or LIN23 is present, then the other is required.
11 If either LIN24 or LIN25 is present, then the other is required.
12 If either LIN26 or LIN27 is present, then the other is required.
13 If either LIN28 or LIN29 is present, then the other is required.
14 If either LIN30 or LIN31 is present, then the other is required.
Semantic Notes:
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.
Notes:
Example Segments:
*LIN**BP*FL34 15109A68 551 (Standard Shipment)*
*LIN**BP*SCRAP (Scrap Shipment)*
*LIN**BP*3000007147*VO*4390094049*VN*000010*
*LIN**VO*4390086255*VN*10*VP*180264430*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**LIN02**	**235**	**Product/Service ID Qualifer** Code identifying the type/source of the descriptive number used in Product/Service ID (234) **BP Buyer's Part Number**	**C**	**ID 2/2**
Must Use	**LIN03**	**234**	**Product/Service ID** Identifying number for a product or service *For Standard Shipments, LIN03 contains the Novelis Material Number* *For Scrap Shipments, LIN03 contains "SCRAP" (without quotes)*	**C**	**AN 1/48**
Used	**LIN04**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) **VO Vendor's Order Number**	**O**	**ID 2/2**
Used	**LIN05**	**234**	**Product/Service ID** Identifying number for a product or service	**C**	**AN 1/48**
Used	**LIN06**	**235**	**Product/Service ID Qualifier** Code identifying the type/source of the descriptive number used in Product/Service ID (234) **VP Vendor's (Seller's) Part Number**	**C**	**ID 2/2**
Used	**LIN07**	**234**	**Product/Service ID** Identifying number for a product or service	**X**	**AN 1/48**

Segment: **SN1** Item Detail (Order)

Position: 030
Loop: HL Mandatory
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify line-item detail relative to shipment
Syntax Notes: **1** If either SN105 or SN106 is present, then the other is required.
Semantic Notes: **1** SN101 is the ship notice line-item identification.
Comments: **1** SN103 defines the unit of measurement for both SN102 and SN104.
Notes: *SN1**500*EA*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**SN102**	**382**	**Number of Units Shipped** Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set	**M R 1/10**
M	**SN103**	**355**	**Units of Base of Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken *Either EA or 01 can be used with the respective quantity or weight.* **01 Actual Pounds** **50 Actual Kilograms** **KG Kilogram** **LB Pound** **PF Pallet (Lift)**	**M ID 2/2**
Used	**SN104**	**646**	**Quantity Shipped To Date** Number of units shipped to date	**O R 1/15**

Segment: PRF Purchase Order Reference (Order)

Position: 050
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To provide reference to a specific purchase order
Syntax Notes:
Semantic Notes: **1** PRF04 is the date assigned by the purchaser to purchase order.
Comments:
Notes: *PRF01 should contain the Novelis provided Order Number authorized for the shipment.*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**PRF01**	**324**	**Purchase Order Number (PO)** Identifying number for Purchase Order assigned by the buyer/purchaser	**X**	**AN 1/22**
Used	**PRF04**	**373**	**Date** Date expressed as CCYYMMDD	**O**	**DT 8/8**

Segment: REF Reference Identification

Position: 150
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: >1
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:
Business Rules:
1. ALWAYS set Usage to 'Used'
Notes: *Provide the Novelis provided Order Item number associated with the order provided in the PRF01.*

Example segments:
*REF*IL*110*
*REF*IL*NA (Scrap shipment)*
*REF*IL*13689-110*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification **IL** **Internal Order Number** *Novelis' Sales Order or PO line number*	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: HL Hierarchical Level (Item)

Position: 010
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments
Syntax Notes:
Semantic Notes:
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.
The HL segment defines a top-down/left-right ordered structure.
2 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.
3 HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
4 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.
5 HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
Notes: *HL*3*2*I*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**HL01**	**628**	**Hierarchical ID Number** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	**M AN 1/12**
M	**HL02**	**734**	**Hierarchical Parent ID Number** Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	**M AN 1/12**
M	**HL03**	**735**	**Hierarchical Level Code** Code defining the characteristic of a level in a hierarchical structure **I Item**	**M ID 1/2**

Segment: **SN1** Item Detail (Item)

Position: 030
Loop: HL Mandatory
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify line-item detail relative to shipment
Syntax Notes: **1** If either SN105 or SN106 is present, then the other is required.
Semantic Notes: **1** SN101 is the ship notice line-item identification.
Comments: **1** SN103 defines the unit of measurement for both SN102 and SN104.
Notes: *Example Segments:*

*SN1**1*PF (pallet lifts when shipping in pallet/lifts)*
*SN1*4095*01 (Net pounds - shipped weight)*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**SN102**	**382**	**Number of Units Shipped** Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set	**C R 1/10**
Must Use	**SN103**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken **01** **Actual Pounds** **50** **Actual Kilograms** **KG** **Kilogram** **LB** **Pound** **PF** **Pallet (Lift)**	**X ID 2/2**

Segment: PID Product/Item Description

Position: 070
Loop: HL Mandatory
Level: Detail
Usage: Optional
Max Use: 200
Purpose: To describe a product or process in coded or free-form format
Syntax Notes:
1 If PID04 is present, then PID03 is required.
2 At least one of PID04 or PID05 is required.
3 If PID07 is present, then PID03 is required.
4 If PID08 is present, then PID04 is required.
5 If PID09 is present, then PID05 is required.
Semantic Notes:
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.
Notes: *Example Segments:*

*PID*S*55***X626*
*PID*S*16***T4*
*PID*S*08***HC3B 26107K40 370*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**PID01**	**349**	**Item Description Type** Code indicating the format of a description **S** **Structured (From Industry Code List)**	**M ID 1/1**
Used	**PID02**	**750**	**Product/Process Characteristic Code** Code identifying the general class of a product or process characteristic **08** **Product** **16** **Temper** **55** **Alloy**	**O ID 2/3**
R	**PID05**	**352**	**Description** A free-form description to clarify the related data elements and their content	**O AN 1/80**

Segment: MEA Measurements

Position: 080
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 39
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
Notes: *Mechanical Properties such as length, width, and gauge.*

Example Segments:
*MEA*PD*GG*0.1378*IN (Up to 4 decimals)*
*MEA*PD*LN*2546*FT (Round to zero decimals)*
*MEA*PD*DN*0.09770*PJ (Up to 4 decimals)*
*MEA*PD*TH*.0315*ED*
*MEA*PD*WD*9.2520*IN (Up to 4 decimals)*
*MEA*PD*OD*60*ED*
*MEA*PD*ID*24*ED*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies **PD** **Physical Dimensions**	**M ID 2/2**
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies **DN** **Density** **GG** **Gauge** **ID** **Inside Diameter** **LN** **Length** **OD** **Outside Diameter** **TH** **Thickness** **WD** **Width**	**C ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement	**X R 1/20**
Must Use	**MEA04**	**C001**	**Composite Unit of Measure** To identify a composite unit of measure (See Figures Appendix for examples of use) *When MEA01= PD and* *MEA02 ='DN' for Density, use PJ* *MEA02 ='GG' for Gauge, use IN or ED*	**C**

MEA02 = 'LN' for Length, use FT, ED or LF
MEA02 = 'WD' for Width, use IN or ED

Must Use **C00101** **355** **Unit or Basis for Measurement Code** **C** **ID 2/2**

Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

ED	**Inches, Decimal--Nominal**
FT	**Foot**
IN	**Inch**
LF	**Linear Foot**
PJ	**Pounds, Decimal - Pounds per Square Foot - Pound Gage**

Segment: **MEA** Measurements

Position: 080
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: 39
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
Notes: *Actual Gross and Net weight segments are required.*

*MEA*WT*G*4144*01*
*MEA*WT*N*4095*01*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies **WT** **Weights**	**M ID 2/2**
Used	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies **G** **Gross Weight** *Item Gross Weight* **N** **Actual Net Weight** *Item Net Weight*	**C ID 1/3**
M	**MEA03**	**739**	**Measurement Value** The value of the measurement	**M R 1/20**
Must Use	**MEA04**	**C001**	**Composite Unit of Measure** To identify a composite unit of measure (See Figures Appendix for examples of use)	**X**
M	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken *Actual weights are mandatory. Other values are optional.* **01** **Actual Pounds** **24** **Theoretical Pounds** **50** **Actual Kilograms** **53** **Theoretical Kilograms** **KG** **Kilogram** **LB** **Pound**	**M ID 2/2**

Segment: MEA Measurements

Position: 080
Loop: HL Mandatory
Level: Detail
Usage: Optional
Max Use: 39
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
Notes:
Used for Piece counts.

When Shipping Pieces (blanks, etc.), provide the piece count for this shipment line item.
*MEA*CT*NL*375*PC*

When shipping Coils, provide '1' in MEA03
*MEA*CT*NL*1*PC*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies **CT** **Counts** **NC** **Net Change**	**M ID 2/2**
Used	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies **NL** **Number per Lift**	**C ID 1/3**
Used	**MEA03**	**739**	**Measurement Value** The value of the measurement	**O R 1/20**
Must Use	**MEA04**	**C001**	**Composite Unit of Measure** To identify a composite unit of measure (See Figures Appendix for examples of use)	**X**
M	**C00101**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken **PC** **Piece**	**M ID 2/2**

Segment: REF Reference Identification

Position: 150
Loop: HL Mandatory
Level: Detail
Usage: Mandatory
Max Use: >1
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:
Notes:

REF01 of LS, SE, LT and BT are MANDATORY.
REF01 of LT, Q4 or BT are Optional.

*REF*LS* Novelis' Original Coil ID*
*REF*SE* Current Handling Unit*
*LEF*LT* Original Handling Unit*
*REF*BT* Vendors Batch Number*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification	**X ID 2/3**
			BT **Batch Number** *Mandatory - REF*BT - Vendor Batch Number*	
			LS **Bar-Coded Serial Number** *Mandatory - REF*LS - Novelis' Original Coil ID*	
			LT **Lot Number** *Mandatory - REF*LT - Novelis' Original Handling Unit*	
			Q4 **Prior Identifier Number** *Optional - REF*Q4 - Previous Handling Unit.*	
			SE **Serial Number** *Mandatory - REF*SE - Current Handling Unit*	
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: DTM Date/Time Reference

Position: 200
Loop: HL Mandatory
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:
Notes: *DTM*206*20160415*2315*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Used	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time **206** **Status (Outside Processor)** **When outside processor established the status of the material**	**X ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**
Used	**DTM03**	**337**	**Time** 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)	**X TM 4/8**
Must Use	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow **CT** **Central Time** **ET** **Eastern Time** **GM** **Greenwich Mean Time** *a.k.a. UTC (Coordinated Universal Time)* **MT** **Mountain Time** **PT** **Pacific Time** **UT** **Universal Time Coordinate** *a.k.a. GMT (Greenwich Mean Time)*	**O ID 2/2**

Segment: CTT Transaction Totals

Position: 010
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes: **1** If either CTT03 or CTT04 is present, then the other is required.
2 If either CTT05 or CTT06 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment is intended to provide hash totals to validate transaction completeness and correctness.
Notes: *CTT*4*2*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	**CTT01**	**354**	**Number of Line Items** Total number of line items in the transaction set	**M**	**N0 1/6**
Used	**CTT02**	**347**	**Hash Total** Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element.	**O**	**R 1/10**

Segment: SE Transaction Set Trailer

Position: 020
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
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)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.
Notes: *SE*36*0001*

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	**SE01**	**96**	**Number of Included Segments** Total number of segments included in a transaction set including ST and SE segments	**M N0 1/10**
M	**SE02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M AN 4/9**

Example of Document Structure

Single Order with multiple Handling Units

Header
ST*856*0001
BSN*00*12345*20140717*1509
DTM*011*20140717*1509*CT
DTM*017*20140717

Shipment Level
HL*01**S
MEA*WT*G*13572*LB
MEA*WT*N*8200*LB
MEA*CT*NOR*750*EA
TD1*LIF52*3
TD5*B*02*AGGP*M
TD3*TL**1142
REF*BM*8659501
REF*MB*86595
REF*PK*ABCDEF
REF*EQ*FB
FOB*PD
N1*ST*Ship to NAME*1*005356662
N1*SF*Ship from NAME*1*039630926
N1*SU*Supplier NAME*1*241003755

Order Level
HL*02*01*O
LIN**BP*B7020FBA
SN1**750*EA
PRF*6500003682***20140403
REF*IL*13689-110

Item Level Detail
HL*03*02*I
SN1**1*PF
MEA*PD*GG*12*IN
MEA*PD*LN*34*FT
MEA*WT*N*4095*LB
MEA*WT*G*4144*LB
MEA*CT*NL*375*PC
REF*LS*(Novelis‘ Original Coil ID)
REF*SE*(Current Handling Unit)
HL*04*02*I
SN1**1*PF
MEA*PD*GG*12*IN

MEA*PD*LN*34*FT
MEA*WT*N*4105*LB
MEA*WT*G*4144*LB
MEA*CT*NL*375*PC
REF*LS*(Novelis‘ Original Coil ID)
REF*SE*(Current Handling Unit)

Summary
CTT*4*752
SE*36*0001

Multiple Order Levels with multiple Handling Units

Header
ST*856*0001
BSN*00*12345*20140717*1509
DTM*011*20140717*1509*CT
DTM*017*20140717

Shipment Level
HL*01**S
MEA*WT*G*13572*LB
MEA*WT*N*8200*LB
MEA*CT*NOR*750*PC
TD1*PLT90*2
TD5*B*02*AGGP*M
TD3*TL**1142
REF*BM*8659501
REF*MB*86595
REF*PK*ABCDEF
FOB*PD
N1*ST*Ship To Name*1*005356662
N1*SF*Ship From Name*1*039630926
N1*SU*Supplier Name*1*241003755

Order Level
HL*02*01*O
LIN**BP*B7020FBA
SN1**375*EA
PRF*6500003682***20140403
REF*IL*13689-110

Item Level Detail
HL*03*02*I
SN1**1*PF
MEA*PD*GG*12*IN
MEA*PD*LN*34*FT
MEA*WT*N*4095*LB
MEA*WT*G*4144*LB
MEA*CT*NL*375*PC
REF*LS*(Novelis‘ Original Coil ID)
REF*SE*(Current Handling Unit)

Order Level
HL*04*01*O
LIN**BP*B7020FBA-1
SN1**375*EA
PRF*6500003683***20140403
REF*IL*13690-110

Item Level Detail
HL*05*02*I
SN1**1*PF
MEA*PD*GG*12*IN
MEA*PD*LN*34*FT
MEA*WT*N*4105*LB
MEA*WT*G*4144*LB
MEA*CT*NL*375*PC
REF*LS*(Novelis‘ Original Coil ID)
REF*SE*(Current Handling Unit)

Summary
CTT*5*752
SE*55*0001

Scrap shipment, single line

Header
ST*856*0001
BSN*32*12345*20140717*1509
DTM*011*20140717*1509*CT
DTM*017*20140717

Shipment Level
HL*01**S
MEA*WT*G*13572*LB
MEA*WT*N*8200*LB
MEA*CT*NOR*1*PC
TD1*LIF52*3
TD5*B*02*AGGP*M
TD3*TL**1142
REF*BM*8659501
REF*MB*86595
REF*EQ*FB
FOB*PD
N1*ST*Ship to NAME*1*005356662
N1*SF*Ship from NAME*1*039630926
N1*SU*Supplier NAME*1*241003755

Order Level
HL*02*01*O
LIN**BP*SCRAP
REF*IL*NA

Item Level Detail
HL*03*02*I
SN1**8200*LB
PID*S*55***X615
MEA*PD*GG*12*IN
MEA*PD*TH*0.0354*IN
MEA*PD*WD*68*IN
MEA*PD*LN*0*FT
MEA*WT*N*4095*LB
MEA*WT*G*4144*LB
MEA*CT*NL*1*PC
REF*LS*(Original Coil ID)
REF*SE*(Current Handling Unit)
REF*BT*(Vendor Batch Number)
REF*LT*(Original Handling Unit)

Summary
CTT*3*752

Vendor Shipment to Novelis Plant

Header
ST*856*0001
BSN*00*ABC01*20161006*095500
DTM*011*20160308*090100*CT
DTM*017*20160308

Shipment Level
HL*01**S
MEA*PD*G*24570*LB
MEA*PD*N*24540*LB
TD1*LIF52*1
TD5*B*2*JRCS*M
TD3*TL**48258A
REF*BM*ABC01
N1*ST*NOVELIS INC*1*003980216
N1*SF*VENDOR NAME*1*130400799

Order Level
HL*02*01*O
LIN*1*BP*7000012290*VO*80620HB*ZZ*BOM
PRF*4390095196***20161006
REF*IL*10

Item Level Detail
HL*03*02*I
PID*S*55***5052
PID*S*16***F
MEA*PD*GG*0.148*IN
MEA*PD*WD*61.375*IN
MEA*PD*G*24570*LB
MEA*PD*N*24540*LB
MEA*PD*LN*2297*FT
REF*LT*9003010
REF*SE*LGPN1E
REF*BT*9003010000
REF*LS*9003010000

Summary
CTT*3*0
SE*31*0001