



EDI IMPLEMENTATION GUIDE

856 ADVANCED SHIP NOTICE
RAW METAL ONLY VERSION

ANSI X12 V4010



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, and 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.

Suppliers must have the capability of transmitting almost all of the segments and elements described below. There are many other loops, segments and elements that can be used in an AIAG v4010 856 but those are not described in this document. In general, Flex-N-Gate can successfully receive any AIAG-compliant data, but the Flex-N-Gate software will only process and use the entries described below.

The far left column below describes Flex-N-Gate's requirements. Again, almost every segment and element in this 856 will be marked "Always", indicating that it must be sent in every 856, and that it must be sent in the specified loops. The few exceptions to these rules will be noted in the comments.

Please note that Flex-N-Gate will use the BSN02 (Shipment ID) as a packing slip number. REF*BM and REF*PK can be transmitted in the 856, but the Flex-N-Gate software will ignore these segments. Ideally, suppliers will use the same value for SID, BOL, and Packing Slip.

REVISIONS:

1. 04/10/2013
 - a. Created a copy of the main Flex-N-Gate 4010 Specification before the RAW METAL / item level was removed to allow the majority to be sending in no Item level segments.
2. 04/30/2013
 - a. Verified the Ref SE segment was added for the Master Coil ID. No changes made
3. 05/07/2013
 - a. Removed extra sample from regular vendor non RAW METAL.
 - b. Removed the CLD Segment.
4. 06/24/2016
 - a. Updated in the Order level that the SN1, PRF segment is Mandatory
 - b. Updated in the Item level MEA and REF segment is mandatory



Heading:

<u>FNG Usage</u>	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>AIAG Usage</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
Always	010	ST	Transaction Set Header	M	1		
Always	020	BSN	Beginning Segment for Ship Notice	M	1		
Always	040	DTM	Date/Time Reference	M	10		

Shipment Level:

<u>FNG Usage</u>	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>AIAG Usage</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
						200000	
Always	010	HL	Hierarchical Level	M	1		c1
Always	080	MEA	Measurements	O	40		
Always	110	TD1	Carrier Details (Quantity and Weight)	O	20		
Always	120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12		
Always	130	TD3	Carrier Details (Equipment)	O	12		
						200	
Always	220	N1	Name	O	1		

Order Level:

<u>FNG Usage</u>	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>AIAG Usage</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
						200000	
Always	010	HL	Hierarchical Level	M	1		c1
Always	020	LIN	Item Identification	M	1		
Always	030	SN1	Item Detail (Shipment)	O	1		
Always	050	PRF	Purchase Order Reference	M	1		
See comments	150	REF	Reference Identification	M	>1		
See comments	180	REF	Reference Identification	O	500		

Item Level:

<u>FNG Usage</u>	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>AIAG Usage</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
						200000	
Always	010	HL	Hierarchical Level	M	1		c1
See comments	030	SN1	Item Detail (Shipment)	O	1		
See comments	080	MEA	Measurements	M	40		
See comments	150	REF	Reference Identification	M	>1		
See comments	180	REF	Reference Identification	M	500		

Summary:

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
Always	010	CTT	Transaction Totals	O	1		n1
Always	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
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: The transaction Set Control Number (ST02) in this header must match the Transaction Set Control Number (SE02) in the Transaction Set Trailer (SE).

Data Element Summary

FNG	Ref.	Data	Attributes
<u>Usage</u>	<u>Des.</u>	<u>Element</u> <u>Name</u>	
Always	ST01	143 Transaction Set Identifier Code Code uniquely identifying a Transaction Set 856 Ship Notice/Manifest	M ID 3/3
Always	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
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:
Semantic Notes:

- 1 BSN03 is the date the shipment transaction set is created.
- 2 BSN04 is the time the shipment transaction set is created.

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	BSN01	353	Transaction Set Purpose Code Code identifying purpose of transaction set 00 Original 01 Cancellation 04 Replace	M ID 2/2
Always	BSN02	396	Shipment Identification A unique control number assigned by the original shipper to identify a specific shipment Unique supplier-assigned number that is not repeated within a one year period when BSN01="00". Will be treated as Packing Slip Number in Flex-N-Gate software.	M AN 2/30
Always	BSN03	373	ASN Date Date expressed as CCYYMMDD	M DT 8/8
Always	BSN04	337	ASN 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
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.
Semantic Notes: 1 For DTM04, use valid X12 codes such as ED, ET, CD, CT, etc
Comments:

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	DTM01	374	Date/Time Qualifier Code specifying type of date or time, or both date and time 011 Shipped 017 Expected	M ID 3/3
Always	DTM02	373	Ship Date Date expressed as CCYYMMDD	X DT 8/8
Always	DTM03	337	Ship 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
Always	DTM04	623	Shipper's Time Zone Code	O ID 2/2



Segment: **HL** Hierarchical Level
Loop: HL Mandatory
Level: Detail -- Shipment
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.

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	HL01	628	Hierarchical ID Number A unique number assigned by the sender to identify a particular data segment in a hierarchical structure Use "1" for this occurrence of the HL at the shipment level, increment by 1 for each subsequent HL segment within the transaction.	M AN 1/12
Always	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
Loop: HL Mandatory
Level: Detail -- Shipment
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights

Syntax Notes:
Semantic Notes: 1 MEA04 defines the unit of measure for MEA03
Comments:

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	MEA01	737	Measurement Reference ID Code Code identifying the broad category to which a measurement applies PD Physical Dimensions	O ID 2/2
Always	MEA02	738	Measurement Qualifier Code identifying a specific product or process characteristic to which a measurement applies G Gross Weight N Actual Net Weight	O ID 1/3
Always	MEA03	739	Measurement Value The value of the measurement	X R 1/20
Always	MEA04	355	Unit or Basis for Measurement Code To identify a composite unit of measure. Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <u>Use any valid X12 measurement code</u>	M ID 2/2



Segment: **TD1** Carrier Details (Quantity and Weight)
Loop: HL Mandatory
Level: Detail -- Shipment
Usage: Optional
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.
Semantic Notes:
Comments:

Data Element Summary

FNG	Ref.	Data	Name	Attributes
<u>Usage</u>	<u>Des.</u>	<u>Element</u>		
Always	TD101	103	Packaging Code Code identifying the type of packaging Use any valid X12 packaging code.	O AN 3/5
Always	TD102	80	Lading Quantity Number of units (pieces) of the lading commodity	X N0 1/7



Segment: **TD5** Carrier Details (Routing Sequence/Transit Time)
Loop: HL Mandatory
Level: Detail -- Shipment
Usage: Optional
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.

Semantic Notes
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.

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	TD501	133	Routing Sequence Code Code describing the relationship of a carrier to a specific shipment movement B Origin/Delivery Carrier (Any Mode)	O ID 1/2
Always	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
Always	TD503	67	Identification Code Code identifying a party or other code Use SCAC code of trucking company	X AN 2/80
Always	TD504	91	Transportation Method/Type Code Code specifying the method or type of transportation for the shipment Any valid X12 code except mutually defined "ZZ".	X ID 1/2
Always	TD507	309	Location Qualifier Code identifying type of location If TD504 = 'A', use code value "OR", meaning Origin (Shipping Point). OR Origin (Shipping Point) PP Pool Point	O ID 1/2
Always	TD508	310	Location Identifier Code which identifies a specific location Give pool code if TD507 is "PP"; give airport code identifier if TD507 is "OR" for an air shipment (i.e. DTW = Detroit Metro Airport).	X AN 1/30



Segment: **TD3** Carrier Details (Equipment)

Loop: HL Mandatory

Level: Detail -- Shipment

Usage: Optional

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.

Semantic Notes:

Comments:

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	TD301	40	Equipment Description Code Code identifying type of equipment used for shipment Any valid X12 code except mutually defined.	X ID 2/2
Always	TD302	206	Equipment Initial Prefix or alphabetic part of an equipment unit's identifying number	O AN 1/4
Always	TD303	207	Equipment Number Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred)	X AN 1/10



Segment: **REF** Reference Identification

- Loop:** HL Mandatory
- Level:** Detail -- Shipment
- Usage:** Optional
- Max Use:** >1
- Purpose:** To specify identifying information
- Syntax Notes:** 1 At least one of REF02 or REF03 is required.
- Semantic Notes:**
- Comments:** 1 while it is very common for a Bill of Lading and Packing List to be sent in the REF02 at this level, the Flex-N-Gate software will not process this segment. Please see the 830 introductory comments.

Data Element Summary

<u>FNG</u>	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Usage</u>	<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
See comments	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification AW Air Waybill Number BM Bill of Lading Number MB Master Bill of Lading PK Packing List Number	M ID 2/3
See comments	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: N1 Name
Loop: HL/N1 **Repeat:** 200
Level: Detail -- Shipment
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.

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	N101	98	Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual ST Ship To SU Supplier/Manufacturer	M ID 2/3
Always	N102	93	Name Free-form name	X AN 1/60
Always	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	X ID 1/2
Always	N104	67	Identification Code Code identifying a party or other code	X AN 2/80



Segment: **HL** Hierarchical Level
Loop: HL **Repeat:** 200000
Level: Detail -- Order
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.

Data Element Summary

FNG Usage	Ref. Des.	Data Element	Name	Attributes
Always	HL01	628	Hierarchical ID Number A unique number assigned by the sender to identify a particular data segment in a hierarchical structure Use "1" for this occurrence of the HL at the shipment level, increment by 1 for each subsequent HL segment within the transaction.	M AN 1/12
Always	HL02	734	Hierarchical Parent ID Number Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O AN 1/12
Always	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
Loop: HL
Level: Detail – Order
Usage: Mandatory
Max Use: 1
Purpose: To specify basic item identification data
Comments:

- 1 See the Data Dictionary for a complete list of IDs.
- 2 LIN02 through LIN31 provides 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
- 3 While it is very common for a Purchase Order Number to be sent in the LIN05, the Flex-N-Gate software will not use this element. Only the PO# in PRF01 is used.

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	LIN02	235	Product/Service ID Qualifier Code identifying the type/source of the descriptive number used in Product/Service ID (234) BP Buyer's Part Number	M ID 2/2
Always	LIN03	234	Product/Service ID Identifying number for a product or service	M AN 1/48
See comments	LIN04	235	Product/Service ID Qualifier Code identifying the type/source of the descriptive number used in Product/Service ID (234)	X ID 2/2
See comments	LIN05	234	Product/Service ID Identifying number for a product or service LIN06 through LN31 provide for 13 additional pairs of data elements 235 and 234.	X AN 1/48



Segment: SN1 Item Detail (Shipment)
Loop: HL
Level: Detail -- Order
Usage: Mandatory
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.

Data Element Summary

FNG	Ref.	Data	Name	Attributes
<u>Usage</u>	<u>Des.</u>	<u>Element</u>		
Always	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
Always	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 This must be the same Unit of Measure sent in the corresponding 830, in the UIT01.	M ID 2/2
Always	SN104	646	Quantity Shipped to Date Number of units shipped to date, including this shipment	O R 1/15
Always	SN106	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 Use any valid X12 code except mutually defined, "ZZ".	X ID 2/2



Segment: **PRF** Purchase Order Reference
Loop: HL
Level: Detail -- Order
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:

Data Element Summary

FNG	Ref.	Data	Name	Attributes
<u>Usage</u>	<u>Des.</u>	<u>Element</u>		
Always	PRF01	324	Purchase Order Number Identifying number for Purchase Order assigned by the order person/purchaser Use PO number from releasing document.	M AN 1/22



Segment: **REF** Reference Identification
Loop: HL
Level: Detail -- Order
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.

Semantic Notes: 1 REF04 contains data relating to the value cited in REF02.
Comments: 1 while it is very common for a Bill of Lading and Packing List to be sent in the REF02 at this level, the Flex-N-Gate software will not process this segment. Please see the 830 introductory comments.

Data Element Summary

FNG	Ref.	Data	Name	Attributes
<u>Usage</u>	<u>Des.</u>	<u>Element</u>		
See comments	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
See comments	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: **REF** Reference Identification
Loop: CLD Optional
Level: Detail -- Order
Usage: Optional
Max Use: 500
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:

Data Element Summary

FNG	Ref.	Data	Name	Attributes
Usage	Des.	Element		
Always	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			Provide the Master bar code label information at the Order Level; provide the container bar code label information at the Item Level.	
			LS Bar-Coded Serial Number	
Always	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
			Indicate the Master Barcode Serial Number.	



Segment: **HL** Hierarchical Level
Loop: HL **Repeat:** 200000
Level: Detail -- Item
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.

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	HL01	628	Hierarchical ID Number A unique number assigned by the sender to identify a particular data segment in a hierarchical structure Use "1" for this occurrence of the HL at the shipment level, increment by 1 for each subsequent HL segment within the transaction.	M AN 1/12
Always	HL02	734	Hierarchical Parent ID Number Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O AN 1/12
Always	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 (Shipment)
Loop: HL
Level: Detail -- Item
Usage: Mandatory
Max Use: 1
Purpose: To specify line-item detail relative to shipment.
Syntax Notes: 1 P0506 – If either SN105 or SN106 is present, then the other is required.
Semantic Notes: 1 SN101 is the ship notice line identification.
Comments: A SN103 defines the unit of measurement for both SN101 and SN104.
 B SN102 and SN103 will be transmitted at the Item detail level to identify the quantity of RAW METAL coils being shipped when applicable.

Data Element Summary

<u>FNG</u>	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Usage</u> See Comments	<u>Des.</u> SN102	<u>Element</u> 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
See Comments	SN103	355	Unit or Basis for Measurement Code Code identifying the units in which a value is being expressed, or manner in which a measurement has been taken. Any valid X12 code except mutually defined; 'ZZ' CX Coil	M ID 2/2



Segment: **MEA** Measurements
Loop: HL Mandatory
Level: Detail -- Item
Usage: Mandatory
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights

Syntax Notes:

Semantic Notes:

Comments:

- 1 MEA04 defines the unit of measure for MEA03
- 1 this segment is required at item level to identify RAW METAL coils.
- 2 At least one iteration of 'WT' Weight required identifying total weight of all RAW METAL coils shipped in preceding Item level SN1.

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	MEA01	737	Measurement Reference ID Code Code identifying the broad category to which a measurement applies PD Physical Dimensions	O ID 2/2
Always	MEA02	738	Measurement Qualifier Code identifying a specific product or process characteristic to which a measurement applies LN Length TH Thickness WD Width WT Weight	O ID 1/3
Always	MEA03	739	Measurement Value The value of the measurement	X R 1/20
Always	MEA04	355	Unit or Basis for Measurement Code To identify a composite unit of measure. Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Use any valid X12 measurement code	M ID 2/2



Segment: **REF** Reference Identification
Loop: HL
Level: Detail -- Item
Usage: Mandatory
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments: 1 this segment is required at item level to identify RAW METAL coils as applicable.

Data Element Summary

<u>FNG</u>	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Usage</u> See comments	<u>Des.</u> REF01	<u>Element</u> 128	Reference Identification Qualifier Code qualifying the Reference Identification HC Heat Code LS Bar-Coded Serial Number LT Lot Number SE Master Coil ID/Serial Number	M ID 2/3
See comments	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: **CTT** Transaction Totals
Loop: Summary
Level: Optional
Usage: 1
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.

Data Element Summary

<u>FNG Usage</u>	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Always	CTT01	354	Number of Line Items Total number of line items in the transaction set Total number of HL segments.	M N0 1/6
Always	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. Example: -.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. ----- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field. Hash total of quantity shipped (SN102).	O R 1/10



Segment: **SE** Transaction Set Trailer
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.

Data Element Summary

FNG	Ref.	Data	Name	Attributes
Usage	Des.	Element		
Always	SE01	96	Number of Included Segments Total number of segments included in a transaction set including ST and SE segments	M NO 1/10
Always	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

SAMPLE 856 (RAW METAL Coil):

1st Part at Order level for 2 RAW METAL coils at Item level

2nd Part at Order level for 1 RAW METAL coil at Item level

ISA~00~ ~00~ ~01~VENDDUNS# ~01~011298072 ~020719~0904~U~00401~000000005~0~P~@*

GS~SH~VENDDUNS#~011298072~20020719~0904~6~X~004010*

ST~856~0004* X12 Transaction Set = 856 (ASN)
Transaction Set Control Number = 0004

BSN~00~111111~20031223~0922~0001* Status = 00 (Original)
Document Number = 111111
Date created = Dec 23, 2003
Time created = 09:22 am

DTM~011~20031223~0922* Date Shipped = Dec 23, 2003
Time Shipped = 09:22 am

HL~1~~S* Hierarchical ID Number = 1
Hierarchical Level = Shipment

MEA~PD~G~72420~LB* Type of Measurement = Physical Dimension
Gross Weight = 72,420 LB

MEA~PD~N~72420~LB* Type of Measurement = Physical Dimension
Net Weight = 72,420 LB

TD1~COL~3* Shipping Container = 3 RAW METAL Coils

TD5~B~02~TPKE~M* Originating Carrier SCAC Code = TPKE
Method = Motor

TD3~TL~~181005* Trailer Number = 181005

REF~PK~111111* Packing Slip Number = 111111

N1~ST~~1~011298072* Ship to DUNS = 011298072



N1~SU~~1~00222222* Supplier DUNS = 002222222

HL~2~1~O~1* Hierarchical ID Number = 2
Hierarchical Parent ID Number = 1 (ship)
Hierarchical Level = Order
Hierarchical Child Code = 1

LIN~~BP~COILPART1* Buyer's Part Number = COILPART1

SN1~~36860~LB~36860* Units Shipped = 36,860 LBS
Number of units Shipped to Date = 36,860

PRF~650248* Purchase Order Number = 650248

HL~3~2~I~0* Hierarchical ID Number = 3
Hierarchical Parent ID Number = 2 (Order)
Hierarchical Level = Item
Hierarchical Child Code = 0

SN1~~1~CX* Units Shipped = 1 Coil

MEA~PD~WT~18430~LB* Type of Measurement = Physical Dimension
Actual Weight = 18,430 LB

REF~HC~0115525* Heat Code = 0115525

REF~LS~221589-P11A* Label Serial Number = 221589-P11A

HL~4~2~I~0* Hierarchical ID Number = 4
Hierarchical Parent ID Number = 2 (Order)
Hierarchical Level = Item
Hierarchical Child Code = 0

SN1~~1~CX* Units Shipped = 1 Coil

MEA~PD~WT~18430~LB* Type of Measurement = Physical Dimension
Actual Weight = 18,430 LB

REF~HC~0115525* Heat Code = 0115525



REF~LS~221589-P11B*	Label Serial Number = 221589-P11B
HL~5~1~O~1*	Hierarchical ID Number = 5 Hierarchical Parent ID Number = 1(Ship) Hierarchical Level = Order Hierarchical Child Code = 1
LIN~~BP~COILPART2*	Buyer's Part Number = COILPART2
SN1~~35560~LB~35560*	Units Shipped = 35,560 LBS Number of units Shipped to Date = 35,560
PRF~2051*	Purchase Order Number = 2051
HL~6~5~I~0*	Hierarchical ID Number = 6 Hierarchical Parent ID Number = 5(Order) Hierarchical Level = Item Hierarchical Child Code = 0
SN1~~1~CX*	Units Shipped = 1 Coil
MEA~PD~WT~35560~LB*	Type of Measurement = Physical Dimension Actual Weight = 18,430 LB
REF~HC~0115668*	Heat Code = 0115668
REF~LS~223596-P11C*	Label Serial Number = 223596-P11C
REF~LT~INFORMATION*	Lot information = information
REF~SE~223596-P11C*	Master Serial ID = 223596-P11C
CTT~6~72420*	Number of Hierarchical Levels = 6 Hash Total of Quantity Shipped (SN102) = 72420
SE~37~0006*	Total Number of Segments = 37 Transaction Set Control Number = 6
GE~1~6*	



IEA~1~000000005*