

ANSI X12 version 4010 856 Advance Ship Notice

VERSION: 1.0 FINAL

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Publication Date:	05/01/07
Trading Partner:	All

856

Ship Notice/Manifest

Functional Group=SH

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.

Segments:

<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>
	ISA	Interchange Control Header	M	1			Used
	GS	Functional Group Header	M	1			Used

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>
	ST	Transaction Set Header	M	1			Must use
	BSN	Beginning Segment for Ship Notice	M	1			Must use
	DTM	Date/Time Reference	M	1			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>
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<u>LOOP ID - HL</u>	<u>Shipment Level</u>	<u>200000</u>					
HL	Hierarchical Level	M	1			C2/010	Must use
TD1	Carrier Details (Quantity and Weight)	O	20				Used
TD5	Carrier Details (Routing Sequence/Transit Time)	O	12				Used
TD3	Carrier Details (Equipment)	O	12				Used
REF	Reference Identification	O	>1				Used
N1	Name	O	1				Used
N3	Address Information	O	2				Used
N4	Geographic Location	O	1				Used

<u>LOOP ID - HL</u>	<u>Order Level</u>	<u>20000</u>					
HL	Hierarchical Level	M	1			C2/010	Must use
PRF	Purchase Order Reference	O	1				Used



LOOP ID – HL - Item Level				20000		
HL	Hierarchical Level	M	1	C2/010	Must use	
LIN	Item Identification	M	1		Used	
SN1	Item Detail (Shipment)	M	1		Used	
PID	Product/Item Description	O	200		Used	
MEA	Measurement	M	1		used	
REF	Reference Identification	M	1		used	
DTM	Date/Time Reference	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>
CTT		Transaction Totals	O	1		N3/010	Used
SE		Transaction Set Trailer	M	1			Must use

Segments:

<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>
GE		Functional Group Trailer	M	1			Used
IEA		Interchange Control Trailer	M	1			Used

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:

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

ISA

Interchange Control Header

Pos:	Max: 1
- Mandatory	
Loop: N/A	Elements: 16

To start and identify an interchange of zero or more functional groups and interchange-related control 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>
ISA01	I01	Authorization Information Qualifier Description: Code to identify the type of information in the Authorization Information <u>Code Name</u> 00 No Authorization Information Present (No Meaningful Information in I02)	M	ID	2/2	Must use
ISA02	I02	Authorization Information Description: Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)	M	AN	10/10	Must use
ISA03	I03	Security Information Qualifier Description: Code to identify the type of information in the Security Information <u>Code Name</u> 00 No Security Information Present (No Meaningful Information in I04)	M	ID	2/2	Must use
ISA04	I04	Security Information Description: This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)	M	AN	10/10	Must use
ISA05	I05	Interchange ID Qualifier Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified <u>Code Name</u> 12 Phone (Telephone Companies)	M	ID	2/2	Must use
ISA06	I06	Interchange Sender ID Description: Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element	M	AN	15/15	Must use
ISA07	I05	Interchange ID Qualifier Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified <u>Code Name</u> 01 Duns (Dun & Bradstreet) 09 X.121 (CCITT) 12 Phone (Telephone Companies) ZZ Mutually Defined	M	ID	2/2	Must use
ISA08	I07	Interchange Receiver ID Description: Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other	M	AN	15/15	Must use



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<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>	
		parties sending to them will use this as a receiving ID to route data to them					
ISA09	I08	Interchange Date Description: Date of the interchange	M	DT	6/6	Must use	
ISA10	I09	Interchange Time Description: Time of the interchange	M	TM	4/4	Must use	
ISA11	I10	Interchange Control Standards Identifier Description: Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer All valid standard codes are used.	M	ID	1/1	Must use	
ISA12	I11	Interchange Control Version Number Description: This version number covers the interchange control segments <u>Code Name</u> 00401 Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997	M	ID	5/5	Must use	
ISA13	I12	Interchange Control Number Description: A control number assigned by the interchange sender	M	N0	9/9	Must use	
ISA14	I13	Acknowledgment Requested Description: Code sent by the sender to request an interchange acknowledgment (TA1) <u>Code Name</u> 0 No Acknowledgment Requested	M	ID	1/1	Must use	
ISA15	I14	Usage Indicator Description: Code to indicate whether data enclosed by this interchange envelope is test, production or information <u>Code Name</u> P Production Data T Test Data	M	ID	1/1	Must use	
ISA16	I15	Component Element Separator Description: Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator	M		1/1	Must use	

GS**Functional Group Header**

Pos:	Max: 1
- Mandatory	
Loop: N/A	Elements: 8

To indicate the beginning of a functional group and to provide control 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>
GS01	479	Functional Identifier Code Description: Code identifying a group of application related transaction sets	M	ID	2/2	Must use
		<u>Code Name</u> SH Ship Notice/Manifest (856)				
GS02	142	Application Sender's Code Description: Code identifying party sending transmission; codes agreed to by trading partners	M	AN	2/15	Must use
GS03	124	Application Receiver's Code Description: Code identifying party receiving transmission. Codes agreed to by trading partners	M	AN	2/15	Must use
GS04	373	Date Description: Date expressed as CCYYMMDD	M	DT	8/8	Must use
GS05	337	Time Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD	M	TM	4/8	Must use
GS06	28	Group Control Number Description: Assigned number originated and maintained by the sender	M	N0	1/9	Must use
GS07	455	Responsible Agency Code Description: Code used in conjunction with Data Element 480 to identify the issuer of the standard	M	ID	1/2	Must use
		<u>Code Name</u> X Accredited Standards Committee X12				
GS08	480	Version / Release / Industry Identifier Code Description: Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed	M	AN	1/12	Must use
		<u>Code Name</u> 004010 Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997				

Semantics:

- GS04 is the group date.
- GS05 is the group time.
- The data interchange control number GS06 in this header must be identical to the same data element in the associated functional group trailer, GE02.

Comments:

- A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.

ST**Transaction Set Header**

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

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 Description: Code uniquely identifying a Transaction Set	M	ID	3/3	Must use
		<u>Code Name</u> 856 Ship Notice/Manifest				
ST02	329	Transaction Set Control Number Description: 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	Must use

Semantics:

- 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

To transmit identifying numbers, dates, and other basic data relating to 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>
BSN01	353	Transaction Set Purpose Code Description: Code identifying purpose of transaction set <u>Code Name</u> 00 Original	M	ID	2/2	Must use
BSN02	396	Shipment Identification Description: A unique control number assigned by the original shipper to identify a specific shipment	M	AN	2/30	Must use
BSN03	373	Date Description: Date expressed as CCYYMMDD	M	DT	8/8	Must use
BSN04	337	Time 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)	M	TM	4/8	Must use

Syntax:

1. BSN07 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: 200	Max: 10
Detail - Optional	
Loop: HL	Elements: 2

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 Description: Code specifying type of date or time, or both date and time <u>Code Name</u> 011 Shipped	M	ID	3/3	Must use
DTM02	373	Date Description: Date expressed as CCYYMMDD	C	DT	8/8	Used

Syntax:

1. DTM02 R020305 -- At least one of DTM02, DTM03 or DTM05 is required.

HL

Hierarchical Level

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

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 Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	Hierarchical Parent ID Number Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	Hierarchical Level Code Description: Code defining the characteristic of a level in a hierarchical structure <u>Code Name</u> S Shipment	M	ID	1/2	Must use

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 - Optional	
Loop: HL	Elements: 5

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 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 All valid standard codes are used.	O	AN	3/5	Used
TD102	80	Lading Quantity Description: Number of units (pieces) of the lading commodity	C	N0	1/7	Used
TD106	187	Weight Qualifier Description: Code defining the type of weight <u>Code Name</u> G Gross Weight N Actual Net Weight	O	ID	1/2	Used
TD107	81	Weight Description: Numeric value of weight	C	R	1/10	Used
TD108	355	Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <u>Code Name</u> LB Pound	C	ID	2/2	Used

Syntax:

1. TD101 C0102 -- If TD101 is present, then TD102 is required
2. TD103 C0304 -- If TD103 is present, then TD104 is required
3. TD106 C0607 -- If TD106 is present, then TD107 is required
4. TD107 P0708 -- If either TD107 or TD108 are present, then the others are required.

TD5

Carrier Details (Routing Sequence/Transit Time)

Pos: 120	Max: 12
Detail - Optional	
Loop: HL	Elements: 4

To specify the carrier and sequence of routing and provide transit time 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>
TD502	66	Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67) <u>Code Name</u> 2 Standard Carrier Alpha Code (SCAC)	C	ID	1/2	Used
TD503	67	Identification Code Description: Code identifying a party or other code	C	AN	2/80	Used
TD504	91	Transportation Method/Type Code Description: Code specifying the method or type of transportation for the shipment All valid standard codes are used.	C	ID	1/2	Used
TD505	387	Routing Description: Free-form description of the routing or requested routing for shipment, or the originating carrier's identity	C	AN	1/35	Used

Syntax:

1. TD502 R0204050612 -- At least one of TD502, TD504, TD505, TD506 or TD512 is required.
2. TD502 C0203 -- If TD502 is present, then TD503 is required

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.

TD3 Carrier Details (Equipment)

Pos: 130	Max: 12
Detail - Optional	
Loop: HL	Elements: 2

To specify transportation details relating to the equipment used by the carrier

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>
TD301	40	Equipment Description Code Description: Code identifying type of equipment used for shipment All valid standard codes are used.	C	ID	2/2	Used
TD303	207	Equipment Number Description: Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred)	C	AN	1/10	Used

Syntax:

1. TD301 E0110 -- Only one of TD301 or TD310 may be present.
2. TD302 C0203 -- If TD302 is present, then TD303 is required

REF Reference Identification

Pos: 150	Max: >1
Detail - Optional	
Loop: HL	Elements: 3

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 Description: Code qualifying the Reference Identification <u>Code Name</u> CN Carrier's Reference Number (PRO/Invoice) PK Packing List Number	M	ID	2/3	Must use
REF02	127	Reference Identification Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	C	AN	1/30	Used
REF03	352	Description Description: A free-form description to clarify the related data elements and their content	C	AN	1/80	Used

Syntax:

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

Semantics:

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

N1**Name**

Pos: 220	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

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 Description: Code identifying an organizational entity, a physical location, property or an individual <u>Code Name</u> SF Ship From ST Ship To	M	ID	2/3	Must use
N102	93	Name Description: Free-form name	C	AN	1/60	Used
N103	66	Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67) <u>Code Name</u> 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix 12 Telephone Number (Phone) 92 Assigned by Buyer or Buyer's Agent ZZ Mutually Defined	C	ID	1/2	Used
N104	67	Identification Code Description: Code identifying a party or other code	C	AN	2/80	Used

Syntax:

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



N3

Address Information

Pos: 240	Max: 2
Detail - Optional	
Loop: N1	Elements: 1

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 Description: Address information	M	AN	1/55	Must use

N4

Geographic Location

Pos: 250	Max: 1
Detail - Optional	
Loop: N1	Elements: 3

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	City Name Description: Free-form text for city name	O	AN	2/30	Used
N402	156	State or Province Code Description: Code (Standard State/Province) as defined by appropriate government agency	O	ID	2/2	Used
N403	116	Postal Code Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	O	ID	3/15	Used

Syntax:

1. N406 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.

HL

Hierarchical Level

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

To identify dependencies among and the content of hierarchically related groups of data segments
Only 1 HL segment per ASN.

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 Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	Hierarchical Parent ID Number Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	Hierarchical Level Code Description: Code defining the characteristic of a level in a hierarchical structure <u>Code Name</u> O Order	M	ID	1/2	Must use

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 - Optional	
Loop: HL	Elements: 2

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 Description: Identifying number for Purchase Order assigned by the sender / vendor	M	AN	1/22	Must use
PRF04	373	Date Description: Date expressed as CCYYMMDD	O	DT	8/8	Used

Semantics:

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

HL

Hierarchical Level

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

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 Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	Hierarchical Parent ID Number Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	Hierarchical Level Code Description: Code defining the characteristic of a level in a hierarchical structure	M	ID	1/2	Must use
		<u>Code</u> <u>Name</u>				
		I Item				

Comments:

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

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 Description: Alphanumeric characters assigned for differentiation within a transaction set	O	AN	1/20	Used
LIN02	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number UP U.P.C. Consumer Package Code (1-5-5-1) VP Vendor's (Seller's) Part Number	M	ID	2/2	Must use
LIN03	234	Product/Service ID Description: Identifying number for a product or service	M	AN	1/48	Must use
LIN04	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number UP U.P.C. Consumer Package Code (1-5-5-1) VP Vendor's (Seller's) Part Number	C	ID	2/2	Used
LIN05	234	Product/Service ID Description: Identifying number for a product or service	C	AN	1/48	Used
LIN06	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <u>Code Name</u> BP Buyer's Part Number UP U.P.C. Consumer Package Code (1-5-5-1) VP Vendor's (Seller's) Part Number	C	ID	2/2	Used
LIN07	234	Product/Service ID Description: Identifying number for a product or service	C	AN	1/48	Used

Syntax:

1. LIN04 P0405 -- If either LIN04 or LIN05 are present, then the others are required.
2. LIN06 P0607 -- If either LIN06 or LIN07 are present, then the others are required

Semantics:

1. LIN01 is the line item identification

SN1 Item Detail (Shipment)

Pos: 030	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 5

To specify line-item detail relative to shipment

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>
SN101	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set	O	AN	1/20	Used
SN102	382	Number of Units Shipped Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set	M	R	1/10	Must use
SN103	355	Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <u>Code Name</u> EA Each FT Foot LB Pound	M	ID	2/2	Must use
SN105	330	Quantity Ordered Description: Quantity ordered	C	R	1/15	Used
SN106	355	Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <u>Code Name</u> EA Each FT Foot LB Pound	C	ID	2/2	Used

Syntax:

- SN105 P0506 -- If either SN105 or SN106 are present, then the others are required.

Semantics:

- SN101 is the ship notice line-item identification.

Comments:

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



PID Product/Item Description

Pos: 070	Max: 200
Detail - Optional	
Loop: HL	Elements: 2

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 Description: Code indicating the format of a description <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>F</td> <td>Free-form</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	F	Free-form	M	ID	1/1	Must use
<u>Code</u>	<u>Name</u>									
F	Free-form									
PID05	352	Description Description: A free-form description to clarify the related data elements and their content	C	AN	1/80	Used				

Syntax:

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

Semantics:

- Use PID03 to indicate the organization that publishes the code list being referred to.
- PID04 should be used for industry-specific product description codes.
- 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.
- PID09 is used to identify the language being used in PID05.

Comments:

- 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.
- Use PID06 when necessary to refer to the product surface or layer being described in the segment.
- PID07 specifies the individual code list of the agency specified in PID03.

MEA Measurements

Pos: 80	Max: 20
Detail – Mandatory	
Loop: HL	Elements: 5

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>
MEA02	738	Measurement Qualifier Description: Code identifying a specific product or process characteristic to which a measurement applies <u>Code Name</u> WT Weight	O	ID	1/3	Used
MEA03	739	Measurement Value Description: The value of the measurement Value must be in pounds and reflects the per unit weight of the product	C	R	1/20	Used
MEA04	C001	Composite Unit of Measure Description: To identify a composite unit of measure(See Figures Appendix for examples of use)	C	Comp		Used
	355	Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <u>Code Name</u> LB Pound Must be pounds	M	ID	2/2	Must use
MEA05	740	Range Minimum Description: The value specifying the minimum of the measurement range	C	R	1/20	Used

To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)

Syntax:

- R03050608 -- At least one of MEA03, MEA05, MEA06 or MEA08 is required.
- C0504 -- If MEA05 is present, then MEA04 is required
- C0604 -- If MEA06 is present, then MEA04 is required
- L07030506 -- If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
- E0803 -- Only one of MEA08 or MEA03 may be present.

Semantics:

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.

REF Reference Identification

Pos: 180	Max: 99
Detail - Mandatory	
Loop: HL	Elements: 2

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 Description: Code qualifying the Reference Identification <u>Code Name</u> LT Lot Number PO PO Number (Our PO number Item was ordered on)	M	ID	2/3	Must use
REF02	127	Reference Identification Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	C	AN	1/30	Used

Syntax:

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

Semantics:

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



DTM Date/Time Reference

Pos: 200	Max: 10
Detail - Optional	
Loop: HL	Elements: 2

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 Description: Code specifying type of date or time, or both date and time <u>Code Name</u> 511 Shelf Life Expiration	M	ID	3/3	Must use
DTM02	373	Date Description: Date expressed as CCYYMMDD	C	DT	8/8	Used

Syntax:

- DTM02 -- Required when material has shelf life.



CTT Transaction Totals

Pos: 010	Max: 1
Summary - Optional	
Loop: N/A	Elements: 4

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 Description: Total number of line items in the transaction set	M	N0	1/6	Must use
CTT02	347	Hash Total Description: 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 beinghashed..18 Second occurrence of value beinghashed.1.8 Third occurrence of value beinghashed.18.01 Fourth occurrence of value beinghashed.-----1855 Hash total prior to truncation.855 Hash total after truncation tothree-digit field.	O	R	1/10	Used
CTT03	81	Weight Description: Numeric value of weight	C	R	1/10	Used
CTT04	355	Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <u>Code Name</u> LB Pound	C	ID	2/2	Used

Syntax:

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

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	Number of Included Segments Description: Total number of segments included in a transaction set including ST and SE segments	M	N0	1/10	Must use
SE02	329	Transaction Set Control Number Description: 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	Must use

Comments:

- SE is the last segment of each transaction set.

GE**Functional Group Trailer**

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

To indicate the end of a functional group and to provide control 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>
GE01	97	Number of Transaction Sets Included Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	M	N0	1/6	Must use
GE02	28	Group Control Number Description: Assigned number originated and maintained by the sender	M	N0	1/9	Must use

Semantics:

- The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

Comments:

- The use of identical data interchange control numbers in the associated functional group header and trailer is designed to maximize functional group integrity. The control number is the same as that used in the corresponding header.

IEA

Interchange Control Trailer

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

To define the end of an interchange of zero or more functional groups and interchange-related control 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>
IEA01	I16	Number of Included Functional Groups Description: A count of the number of functional groups included in an interchange	M	N0	1/5	Must use
IEA02	I12	Interchange Control Number Description: A control number assigned by the interchange sender	M	N0	9/9	Must use