Vendor 856 Ship Notice/Manifest

Tech Data Implementation Guideline

Version: 4010   Final

Created:	**5/23/2016**
Modified:	**10/25/2013**
Notes:	**Hierarchial levels shipment, order, pack, and item.**

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856

Ship Notice/Manifest

Functional Group=SH

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

Heading:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
010	ST	Transaction Set Header	M	1			Must use
020	BSN	Beginning Segment for Ship Notice	M	1			Must use

Detail:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
LOOP ID - HL					**200000**	**C2/010L**	
010	HL	Hierarchical Level - Shipment	M	1		C2/010	Must use
110	TD1	Carrier Details (Quantity and Weight)	O	20			Used
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12			Used
150	REF	Reference Identification	O	>1			Used
200	DTM	Date/Time Reference	O	10			Used
LOOP ID - N1					**200**		
220	N1	Name	O	1			Used
240	N3	Address Information	O	2			Used
250	N4	Geographic Location	O	1			Used
LOOP ID - HL					**200000**	**C2/010L**	
010	HL	Hierarchical Level - Order	M	1		C2/010	Must use
050	PRF	Purchase Order Reference	O	1			Used
150	REF	Reference Identification	O	>1			Used
LOOP ID - HL					**200000**	**C2/010L**	
010	HL	Hierarchical Level - Pack	M	1		C2/010	Must use
060	PO4	Item Physical Details	O	1			Used
110	TD1	Carrier Details (Quantity and Weight)	O	20			Used
190	MAN	Marks and Numbers	O	>1			Used
LOOP ID - HL					**200000**	**C2/010L**	
010	HL	Hierarchical Level - Item	M	1		C2/010	Must use
020	LIN	Item Identification	O	1			Used
030	SN1	Item Detail (Shipment)	O	1			Used
060	PO4	Item Physical Details	O	1			Used
150	REF	Reference Identification	O	>1			Used

Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage

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010	CTT	Transaction Totals	O	1	N3/010	Used
020	SE	Transaction Set Trailer	M	1		Must use

Notes:

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

Comments:

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

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ST Transaction Set Header

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

User Option (Usage): Must use
Purpose: To indicate the start of a transaction set and to assign a control number

Element Summary:

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

Description: Code uniquely identifying a Transaction Set

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

Code	Name
856	Ship Notice/Manifest

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ST02	329	**Transaction Set Control Number**	M	AN	4/9	Must use

Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

Semantics:

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

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BSN   Beginning Segment for Ship Notice

User Option (Usage): Must use
Purpose: To transmit identifying numbers, dates, and other basic data relating to the transaction set

Element Summary:

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

Description: Code identifying purpose of transaction set

CodeList Summary (Total Codes: 65, Included: 1)

Code	Name
00	Original

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BSN02	396	**Shipment Identification**	M	AN	2/30	Must use

Description: A unique control number assigned by the original shipper to identify a specific shipment

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BSN03	373	**Date**	M	DT	8/8	Must use

Description: Date expressed as CCYYMMDD

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BSN04	337	**Time**	M	TM	4/8	Must use

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)

Syntax Rules:

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

Semantics:

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

Comments:

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

HL

Hierarchical Level - Shipment

<table>
<tr><td>Pos: 010</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Mandatory</td></tr>
<tr><td>Loop: HL</td><td>Elements: 2</td></tr>
</table>

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

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

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

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use

Description: Code defining the characteristic of a level in a hierarchical structure

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

Code	Name
S	Shipment

Comments:

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

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TD1 Carrier Details (Quantity and Weight)

Pos: 110	**Max: 20**
Detail - Optional	
Loop: HL	**Elements: 5**

User Option (Usage): Used
Purpose: To specify the transportation details relative to commodity, weight, and quantity

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD101	103	**Packaging Code**	O	AN	3/5	Used

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

CodeList Summary (Total Codes: 203, Included: 2)

Code	Name
BOX	Box
PLT	Pallet

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD102	80	**Lading Quantity**	C	N0	1/7	Used

Description: Number of units (pieces) of the lading commodity

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD106	187	**Weight Qualifier**	O	ID	1/2	Used

Description: Code defining the type of weight

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

Code	Name
G	Gross Weight

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD107	81	**Weight**	C	R	1/10	Used

Description: Numeric value of weight

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD108	355	**Unit or Basis for Measurement Code**	C	ID	2/2	Used

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

CodeList Summary (Total Codes: 794, Included: 1)

Code	Name
LB	Pound

Syntax Rules:

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

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TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 120   **Max: 12**
Detail - Optional
Loop: HL   **Elements: 8**

User Option (Usage): Used
Purpose: To specify the carrier and sequence of routing and provide transit time information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD502	66	**Identification Code Qualifier**	C	ID	1/2	Used

Description: Code designating the system/method of code structure used for Identification Code (67)

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

Code	Name
2	Standard Carrier Alpha Code (SCAC)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD503	67	**Identification Code**	C	AN	2/80	Used

Description: Code identifying a party or other code
User: *Tech Data's shipping code or SCAC- like code*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD504	91	**Transportation Method/Type Code**	C	ID	1/2	Used

Description: Code specifying the method or type of transportation for the shipment

CodeList Summary (Total Codes: 71, Included: 3)

Code	Name
A	Air
H	Customer Pickup
M	Motor (Common Carrier)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD505	387	**Routing**	C	AN	1/35	Used

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

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD507	309	**Location Qualifier**	O	ID	1/2	Used

Description: Code identifying type of location

CodeList Summary (Total Codes: 172, Included: 2)

Code	Name
DE	Destination (Shipping)
OR	Origin (Shipping Point)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD508	310	**Location Identifier**	C	AN	1/30	Used

Description: Code which identifies a specific location
User: *Tech Data's warehouse code*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD510	732	**Transit Time Direction Qualifier**	O	ID	2/2	Used

Description: Code specifying the value of time used to measure the transit time

CodeList Summary (Total Codes: 10, Included: 1)

Code	Name
CD	Calendar Days (Includes weekends and Holidays)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD511	733	**Transit Time**	C	R	1/4	Used

Description: The numeric amount of transit time

Syntax Rules:

1. R0204050612 - At least one of TD502, TD504, TD505, TD506 or TD512 is required.

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2. C0203 - If TD502 is present, then TD503 is required.
3. C0708 - If TD507 is present, then TD508 is required.
4. C1011 - If TD510 is present, then TD511 is required.
5. C1312 - If TD513 is present, then TD512 is required.
6. C1413 - If TD514 is present, then TD513 is required.
7. C1512 - If TD515 is present, then TD512 is required.

Semantics:

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

Comments:

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

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REF   Reference Identification

<table>
<tr><td>Pos: 150</td><td>Max: >1</td></tr>
<tr><td colspan="2">Detail - Optional</td></tr>
<tr><td>Loop: HL</td><td>Elements: 2</td></tr>
</table>

User Option (Usage): Used
Purpose: To specify identifying information

Element Summary:

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

Description: Code qualifying the Reference Identification

CodeList Summary (Total Codes: 1503, Included: 4)

Code	Name
BM	Bill of Lading Number
CN	Carrier's Reference Number (PRO/Invoice)
MB	Master Bill of Lading
WY	Waybill Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification**	C	AN	1/30	Used

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Syntax Rules:

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

Semantics:

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

User:

This segment will be sent only when a bill of lading exists for a large shipment OR when a small package carrier is used and the shipment consists of a single container.

DTM   **Date/Time Reference**

Pos: 200	**Max: 10**
Detail - Optional	
Loop: HL	**Elements: 4**

User Option (Usage): Used
Purpose: To specify pertinent dates and times

Element Summary:

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

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

CodeList Summary (Total Codes: 1112, Included: 2)

Code	Name
011	Shipped
017	Estimated Delivery

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM02	373	**Date**	C	DT	8/8	Used

Description: Date expressed as CCYYMMDD

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM03	337	**Time**	C	TM	4/8	Used

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)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM04	623	**Time Code**	O	ID	2/2	Used

Description: 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

CodeList Summary (Total Codes: 51, Included: 9)

Code	Name
CD	Central Daylight Time
CS	Central Standard Time
ED	Eastern Daylight Time
ES	Eastern Standard Time
GM	Greenwich Mean Time
MD	Mountain Daylight Time
MS	Mountain Standard Time
PD	Pacific Daylight Time
PS	Pacific Standard Time

Syntax Rules:

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

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N1   Name

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

User Option (Usage): Used
Purpose: To identify a party by type of organization, name, and code

Element Summary:

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

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

CodeList Summary (Total Codes: 1312, Included: 3)

Code	Name
FW	Forwarder
SF	Ship From
ST	Ship To

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N102	93	**Name**	C	AN	1/60	Used

Description: Free-form name

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N103	66	**Identification Code Qualifier**	C	ID	1/2	Used

Description: Code designating the system/method of code structure used for Identification Code (67)

CodeList Summary (Total Codes: 215, Included: 2)

Code	Name
93	Code assigned by the organization originating the transaction set
94	Code assigned by the organization that is the ultimate destination of the transaction set

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N104	67	**Identification Code**	C	AN	2/80	Used

Description: Code identifying a party or other code

Syntax Rules:

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

Comments:

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

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N3   Address Information

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

User Option (Usage): Used
Purpose: To specify the location of the named party

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N301	166	**Address Information**	M	AN	1/55	Must use

Description: Address information
User: *Tech Data uses max length of 35.*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N302	166	**Address Information**	O	AN	1/55	Used

Description: Address information
User: *Tech Data uses max length of 35.*

N4   Geographic Location

Pos: 250	**Max: 1**
Detail - Optional	
Loop: N1	**Elements: 4**

User Option (Usage): Used
Purpose: To specify the geographic place of the named party

Element Summary:

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

Syntax Rules:

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

Comments:

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

HL   Hierarchical Level - Order

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

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

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

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used

Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use

Description: Code defining the characteristic of a level in a hierarchical structure

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

Code	Name
O	Order

Comments:

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

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PRF   Purchase Order Reference

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

User Option (Usage): Used
Purpose: To provide reference to a specific purchase order

Element Summary:

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

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

Semantics:

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

REF   Reference Identification

User Option (Usage): Used
Purpose: To specify identifying information

Element Summary:

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

Description: Code qualifying the Reference Identification

CodeList Summary (Total Codes: 1503, Included: 7)

Code	Name
AG	Agent's Shipment Number
AW	Air Waybill Number
BM	Bill of Lading Number
CN	Carrier's Reference Number (PRO/Invoice)
CO	Customer Order Number
IV	Seller's Invoice Number
VN	Vendor Order Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification**	C	AN	1/30	Used

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Syntax Rules:

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

Semantics:

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

HL | Hierarchical Level - Pack

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

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

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

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used

> **Description:** Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use

> **Description:** Code defining the characteristic of a level in a hierarchical structure

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

Code	Name
P	Pack

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.

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PO4   Item Physical Details

<table>
<tr><td>Pos: 060</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Optional</td></tr>
<tr><td>Loop: HL</td><td>Elements: 5</td></tr>
</table>

User Option (Usage): Used
Purpose: To specify the physical qualities, packaging, weights, and dimensions relating to the item

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO402	357	**Size**	C	R	1/8	Used

Description: Size of supplier units in pack

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO403	355	**Unit or Basis for Measurement Code**	C	ID	2/2	Used

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

CodeList Summary (Total Codes: 794, Included: 1)

Code	Name
EA	Each

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO405	187	**Weight Qualifier**	O	ID	1/2	Used

Description: Code defining the type of weight

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

Code	Name
G	Gross Weight

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO406	384	**Gross Weight per Pack**	C	R	1/9	Used

Description: Numeric value of gross weight per pack

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO407	355	**Unit or Basis for Measurement Code**	C	ID	2/2	Used

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

CodeList Summary (Total Codes: 794, Included: 1)

Code	Name
LB	Pound

Syntax Rules:

1. P0203 - If either PO402 or PO403   is present, then the other is required.
2. C0506 - If PO405 is present, then PO406 is required.
3. P0607 - If either PO406 or PO407   is present, then the other is required.
4. P0809 - If either PO408 or PO409   is present, then the other is required.
5. C1013 - If PO410 is present, then PO413 is required.
6. C1113 - If PO411 is present, then PO413 is required.
7. C1213 - If PO412 is present, then PO413 is required.
8. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
9. C1716 - If PO417 is present, then PO416 is required.
10. C1804 - If PO418 is present, then PO404 is required.

Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

Comments:

1. PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the pack (PO401) /size (PO402) measure which indicates the quantity in the inner pack unit. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ".
2. PO413 defines the unit of measure for PO410, PO411, and PO412.

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TD1 Carrier Details (Quantity and Weight)

Pos: 110	Max: 20
Detail - Optional	
Loop: HL	**Elements: 2**

User Option (Usage): Used
Purpose: To specify the transportation details relative to commodity, weight, and quantity

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD101	103	**Packaging Code**	O	AN	3/5	Used

> **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
>
> **CodeList Summary** (Total Codes: 203, Included: 2)
>
> | Code | Name |
> |---|---|
> | BOX | Box |
> | PLT | Pallet |

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD102	80	**Lading Quantity**	C	N0	1/7	Used

> **Description:** Number of units (pieces) of the lading commodity

Syntax Rules:

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

MAN Marks and Numbers

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

User Option (Usage): Used
Purpose: To indicate identifying marks and numbers for shipping containers

Element Summary:

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

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

CodeList Summary (Total Codes: 20, Included: 3)

Code	Name
AA	SSCC-18
GM	SSCC-18 and Application Identifier
SM	Shipper Assigned

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MAN02	87	**Marks and Numbers**	M	AN	1/48	Must use

Description: Marks and numbers used to identify a shipment or parts of a shipment

Syntax Rules:

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

Semantics:

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

Comments:

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

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HL   Hierarchical Level - Item

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

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

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

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used

> **Description:** Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use

> **Description:** Code defining the characteristic of a level in a hierarchical structure

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

Code	Name
I	Item

Comments:

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

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LIN   Item Identification

<table>
<tr><td>Pos: 020</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Optional</td></tr>
<tr><td>Loop: HL</td><td>Elements: 9</td></tr>
</table>

User Option (Usage): Used
Purpose: To specify basic item identification data

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN01	350	**Assigned Identification**	O	AN	1/20	Used

Description: Alphanumeric characters assigned for differentiation within a transaction set
User: *Original line number from purchase order*

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN02	235	**Product/Service ID Qualifier**	M	ID	2/2	Must use

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

CodeList Summary (Total Codes: 477, Included: 4)

Code	Name
BP	Buyer's Part Number
MG	Manufacturer's Part Number
UP	U.P.C. Consumer Package Code (1-5-5-1)
VP	Vendor's (Seller's) Part Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN03	234	**Product/Service ID**	M	AN	1/48	Must use

Description: Identifying number for a product or service

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN04	235	**Product/Service ID Qualifier**	C	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN05	234	**Product/Service ID**	C	AN	1/48	Used

Description: Identifying number for a product or service

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN06	235	**Product/Service ID Qualifier**	C	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN07	234	**Product/Service ID**	C	AN	1/48	Used

Description: Identifying number for a product or service

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN08	235	**Product/Service ID Qualifier**	C	ID	2/2	Used

Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN09	234	**Product/Service ID**	C	AN	1/48	Used

Description: Identifying number for a product or service

Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.
4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.

    9. P2021 - If either LIN20 or LIN21   is present, then the other is required.
10. P2223 - If either LIN22 or LIN23   is present, then the other is required.
11. P2425 - If either LIN24 or LIN25   is present, then the other is required.
12. P2627 - If either LIN26 or LIN27   is present, then the other is required.
13. P2829 - If either LIN28 or LIN29   is present, then the other is required.
14. P3031 - If either LIN30 or LIN31   is present, then the other is required.

Semantics:

1. LIN01 is the line item identification

Comments:

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

User:

Product IDs listed in LIN02 can be sent in any order.

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SN1 Item Detail (Shipment)

Pos: 030	Max: 1
Detail - Optional	
Loop: HL	Elements: 4

User Option (Usage): Used
Purpose: To specify line-item detail relative to shipment

Element Summary:

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

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

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN103	355	**Unit or Basis for Measurement Code**	M	ID	2/2	Must use

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

CodeList Summary (Total Codes: 794, Included: 1)

Code	Name
EA	Each

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN104	646	**Quantity Shipped to Date**	O	R	1/15	Used

Description: Number of units shipped to date

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN105	330	**Quantity Ordered**	C	R	1/15	Used

Description: Quantity ordered

Syntax Rules:

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

Semantics:

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

Comments:

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

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PO4 Item Physical Details

<table>
<tr><td>Pos: 060</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Optional</td></tr>
<tr><td>Loop: HL</td><td>Elements: 8</td></tr>
</table>

User Option (Usage): Used
Purpose: To specify the physical qualities, packaging, weights, and dimensions relating to the item

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO402	357	**Size**	C	R	1/8	Used

Description: Size of supplier units in pack

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO403	355	**Unit or Basis for Measurement Code**	C	ID	2/2	Used

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

CodeList Summary (Total Codes: 794, Included: 1)

Code	Name
EA	Each

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO406	384	**Gross Weight per Pack**	C	R	1/9	Used

Description: Numeric value of gross weight per pack

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO407	355	**Unit or Basis for Measurement Code**	C	ID	2/2	Used

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

CodeList Summary (Total Codes: 794, Included: 1)

Code	Name
LB	Pound

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO410	82	**Length**	C	R	1/8	Used

Description: Largest horizontal dimension of an object measured when the object is in the upright position

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO411	189	**Width**	C	R	1/8	Used

Description: Shorter measurement of the two horizontal dimensions measured with the object in the upright position

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO412	65	**Height**	C	R	1/8	Used

Description: Vertical dimension of an object measured when the object is in the upright position

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO413	355	**Unit or Basis for Measurement Code**	C	ID	2/2	Used

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

CodeList Summary (Total Codes: 794, Included: 1)

Code	Name
IN	Inch

Syntax Rules:

1. P0203 - If either PO402 or PO403   is present, then the other is required.
2. C0506 - If PO405 is present, then PO406 is required.
3. P0607 - If either PO406 or PO407   is present, then the other is required.
4. P0809 - If either PO408 or PO409   is present, then the other is required.
5. C1013 - If PO410 is present, then PO413 is required.
6. C1113 - If PO411 is present, then PO413 is required.

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7. C1213 - If PO412 is present, then PO413 is required.
8. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
9. C1716 - If PO417 is present, then PO416 is required.
10. C1804 - If PO418 is present, then PO404 is required.

Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

Comments:

1. PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the pack (PO401) /size (PO402) measure which indicates the quantity in the inner pack unit. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ".
2. PO413 defines the unit of measure for PO410, PO411, and PO412.

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REF Reference Identification

User Option (Usage): Used
Purpose: To specify identifying information

Element Summary:

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

Description: Code qualifying the Reference Identification

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

Code	Name
IV	Seller's Invoice Number
LS	Bar-Coded Serial Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification**	C	AN	1/30	Used

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Syntax Rules:

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

Semantics:

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

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CTT Transaction Totals

<table>
<tr><td>Pos: 010</td><td>Max: 1</td></tr>
<tr><td colspan="2">Summary - Optional</td></tr>
<tr><td>Loop: N/A</td><td>Elements: 1</td></tr>
</table>

User Option (Usage): Used
Purpose: To transmit a hash total for a specific element in the transaction set

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
CTT01	354	**Number of Line Items**	M	N0	1/6	Must use

Description: Total number of line items in the transaction set

Syntax Rules:

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

Comments:

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

SE Transaction Set Trailer

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

User Option (Usage): Must use
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SE01	96	**Number of Included Segments**	M	N0	1/10	Must use

Description: Total number of segments included in a transaction set including ST and SE segments

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SE02	329	**Transaction Set Control Number**	M	AN	4/9	Must use

Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

Comments:

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

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