

Zoro Tools 856 Ship Notice/Manifest

X12/V5010/856 : 856 Ship Notice/Manifest

Company:	Zoro Tools, Inc.
Publication:	2/20/2019
Modified:	4/15/2024
Notes:	

856 Ship Notice/Manifest

Functional Group=SH

Purpose: This X12 Transaction Set contains the format and establishes the data contents of the Ship Notice/Manifest Transaction Set (856) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment. The transaction set enables the sender to describe the contents and configuration of a shipment in various levels of detail and provides an ordered flexibility to convey information. The sender of this transaction is the organization responsible for detailing and communicating the contents of a shipment, or shipments, to one or more receivers of the transaction set. The receiver of this transaction set can be any organization having an interest in the contents of a shipment or information about the contents of a shipment.

Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
0100	ST	Transaction Set Header	M	1			Must use
0200	BSN	Beginning Segment for Ship Notice	M	1			Must use
0400	DTM	Date/Time Reference	M	10			Must use

Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
<u>LOOP ID - HL</u>					<u>200000</u>	<u>C2/0100L</u>	
0100	HL	Hierarchical Level- Shipment	M	1		C2/0100	Must use
1100	TD1	Carrier Details (Quantity and Weight)	O	20			Used
1200	TD5	Carrier Details (Routing Sequence/Transit Time)	M	1			Must use
1500	REF	Reference Information	M	2			Must use
<u>LOOP ID - N1</u>					<u>2</u>		
2200	N1	Party Identification	M	1			Must use
2300	N2	Additional Name Information	O	2			Used
2400	N3	Party Location	M	1			Used
2500	N4	Geographic Location	M	1			Used
<u>LOOP ID - HL</u>					<u>200000</u>	<u>C2/0100L</u>	
0100	HL	Hierarchical Level- Order	M	1		C2/0100	Must use
0500	PRF	Purchase Order Reference	M	1			Must use
1500	REF	Reference Information	M	2			Must use
<u>LOOP ID - HL</u>					<u>200000</u>	<u>C2/0100L</u>	
0100	HL	Hierarchical Level-Pack	M	1		C2/0100	Must use
1900	MAN	Marks and Numbers Information	M	1			Must use
<u>LOOP ID - HL</u>					<u>200000</u>	<u>C2/0100L</u>	
0100	HL	Hierarchical Level-Item	M	1		C2/0100	Must use
0200	LIN	Item Identification	M	1			Must use
0300	SN1	Item Detail (Shipment)	M	1			Must use

<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>
0700	PID	Product/Item Description	M	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>
0100	CTT	Transaction Totals	M	1		N3/0100	Must use
0200	SE	Transaction Set Trailer	M	1			Must use

Notes:

3/0100 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:

2/0100L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/0100 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/0100L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/0100 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/0100L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/0100 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/0100L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/0100 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

ST Transaction Set Header

Pos: 0100	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: 318, Included: 1)

Code Name

856 Ship Notice/Manifest

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) 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).
2. The implementation convention reference (ST03) is used by the translation routines of the interchange partners to select the appropriate implementation convention to match the transaction set definition. When used, this implementation convention reference takes precedence over the implementation reference specified in the GS08.

BSN Beginning Segment for Ship Notice

Pos: 0200	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 4

User Option (Usage): Must use

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

Element Summary:

<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	M	ID	2/2	Must use				
Description: Code identifying purpose of transaction set										
CodeList Summary (Total Codes: 66, Included: 1)										
<table><tr><th><u>Code</u></th><th><u>Name</u></th></tr><tr><td>00</td><td>Original</td></tr></table>							<u>Code</u>	<u>Name</u>	00	Original
<u>Code</u>	<u>Name</u>									
00	Original									
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										
BSN03	373	Date	M	DT	8/8	Must use				
Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year										
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.

DTM Date/Time Reference

Pos: 0400	Max: 10
Heading - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

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: 1280, Included: 2)

Code Name

011 Shipped

User Note 1:

Mandatory

067 Current Schedule Delivery

DTM02	373	Date	M	DT	8/8	Must use
-------	-----	------	---	----	-----	----------

Description: Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year

Syntax Rules:

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

Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

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

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level- Shipment	M	1		Must use
1100	TD1	Carrier Details (Quantity and Weight)	O	20		Used
1200	TD5	Carrier Details (Routing Sequence/Transit Time)	M	1		Must use
1500	REF	Reference Information	M	2		Must use
2200		Loop N1	M		2	Must use
0100		Loop HL	M		200000	Must use

HL Hierarchical Level- Shipment

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

User Option (Usage): Must use

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

Element Summary:

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

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

HL03	735	Hierarchical Level Code	M	ID	1/2	Must use
------	-----	-------------------------	---	----	-----	----------

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

CodeList Summary (Total Codes: 250, 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.

User Note 1:

Zoro Tools expects one (1) ASN per PO.

TD1 Carrier Details (Quantity and Weight)

Pos: 1100	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:

<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	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: 155, Included: 2) <u>Code</u> <u>Name</u> CTN Carton PLT Pallet						
TD102	80	Lading Quantity	X	N0	1/7	Used
Description: Number of units (pieces) of the lading commodity						
TD106	187	Weight Qualifier	O	ID	1/2	Used
Description: Code defining the type of weight CodeList Summary (Total Codes: 52, Included: 1) <u>Code</u> <u>Name</u> G Gross Weight						
TD107	81	Weight	X	R	1/10	Used
Description: Numeric value of weight						
TD108	355	Unit or Basis for Measurement Code	X	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: 844, Included: 1) <u>Code</u> <u>Name</u> LB Pound						

Syntax Rules:

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

TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 1200 Max: 1
Detail - Mandatory
Loop: HL Elements: 4

User Option (Usage): Must use

Purpose: 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	M	ID	1/2	Must use				
Description: Code designating the system/method of code structure used for Identification Code (67)										
CodeList Summary (Total Codes: 241, Included: 1)										
<table><tr><th><u>Code</u></th><th><u>Name</u></th></tr><tr><td>2</td><td>Standard Carrier Alpha Code (SCAC)</td></tr></table>							<u>Code</u>	<u>Name</u>	2	Standard Carrier Alpha Code (SCAC)
<u>Code</u>	<u>Name</u>									
2	Standard Carrier Alpha Code (SCAC)									
TD503	67	Identification Code	M	AN	2/4	Must use				
Description: Code identifying a party or other code										
User Note 1: <i>List of allowed SCACs:</i>										
SCAC Description										
FDEG FedEx Ground										
UPS UPS Ground										
FXFE FedEx Freight										
ABFS ABF Freight										
TFIN Tforce										
CNWY XPO Logistics										
AACT AAA Cooper Transportation										
SAIA Saia										
RDFS Roadrunner Transporation										
MIHD Mainfreight										
TAXA Tax Airfreight										
SPAJ Span Alaska Transporation										
HLFS Honolulu Freight										
USPS United states postal service										
LKCL LCK Logistics % Eagle transport										
HLXL Helix Logistics LLC										
FLOK Flok Freight										
SLCY Schnieder Brokerage										
XPOL RXO Logistics										
TD505	387	Routing	M	AN	1/35	Must use				
Description: Free-form description of the routing or requested routing for shipment, or the originating carrier's identity										
User Note 1: <i>When applicable, one of the following carrier routing descriptions should be used. Please match exactly:</i>										
- FDX GROUND - FDX GROUND AK & HI - FDX GROUND_HAZ-MAT - FDX AIR INT'L PRI (1-3DAYS) - ONTRAC GROUND										

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
------------	-----------	---------------------	------------	-------------	----------------	--------------

- ONTRAC GROUND - CWT
- UPS GROUND
- UPS CANADA GROUND
- UPS GROUND ALASKA -HAWAII-PR
- UPS NDA EARLY AM
- UPS NEXT DAY AIR
- UPS NEXT DAY AIR SAVER (PM)
- UPS 2ND DAY AIR
- UPS 2ND DAY AIR A.M.
- UPS 3 DAY SELECT
- UPS SUREPOST GROUND
- USPS
- XPO Connect - LTL

TD512	284	Service Level Code	X	ID	2/2	Used
-------	-----	---------------------------	---	----	-----	------

Description: Code indicating the level of transportation service or the billing service offered by the transportation carrier

CodeList Summary (Total Codes: 71, Included: 18)

Code Name

3D	Three Day Service
CG	Ground
CX	Express Service
FC	First Class
G2	Standard Service
ND	Next Day Air
NH	Next Day Hundred Weight
ON	Overnight
PA	Primary Service Area - Next Day by 10:30 A.M.
PB	Priority Mail
PC	Primary Service Area - Next Day By 9:30 AM
PI	Priority Mail Insured
SC	Second Day Air
SD	Saturday
SE	Second Day
SG	Standard Ground
SH	Second Day Hundred Weight
SI	Standard Ground Hundred Weight

Syntax Rules:

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

Semantics:

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

Comments:

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

REF Reference Information

Pos: 1500	Max: 2
Detail - Mandatory	
Loop: HL	Elements: 2

User Option (Usage): Must use

Purpose: To specify identifying information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	Reference Identification Qualifier	O	ID	2/3	Used

Description: Code qualifying the Reference Identification

User Note 1: One of either Bill of Lading, Carrier Pro Number or Tracking Number is required. A Tracking Number can be sent in place of a Carrier Pro number, but both should not be provided.

CodeList Summary (Total Codes: 1731, Included: 3)

Code Name

2I	Tracking Number
BM	Bill of Lading Number
CN	Carrier's Reference Number (PRO/Invoice)

REF02	127	Reference Identification	M	AN	1/50	Must use
-------	-----	--------------------------	---	----	------	----------

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

Syntax Rules:

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

Semantics:

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

Loop Party Identification

Pos: 2200	Repeat: 2
Mandatory	
Loop: N1	Elements: N/A

User Option (Usage): Must use

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

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
2200	N1	Party Identification	M	1		Must use
2300	N2	Additional Name Information	O	2		Used
2400	N3	Party Location	M	1		Used
2500	N4	Geographic Location	M	1		Used

N1 Party Identification

Pos: 2200	Max: 1
Detail - Mandatory	
Loop: N1	Elements: 4

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code	M	ID	2/3	Must use
Description: Code identifying an organizational entity, a physical location, property or an individual						
CodeList Summary (Total Codes: 1500, Included: 2)						
<u>Code</u> <u>Name</u>						
SF Ship From						
User Note 1:						
Mandatory						
ST Ship To						
User Note 1:						
Mandatory						
N102	93	Name	M	AN	1/60	Must use
Description: Free-form name						
N103	66	Identification Code Qualifier	X	ID	1/2	Used
Description: Code designating the system/method of code structure used for Identification Code (67)						
CodeList Summary (Total Codes: 241, Included: 1)						
<u>Code</u> <u>Name</u>						
92 Assigned by Buyer or Buyer's Agent						
N104	67	Identification Code	X	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.

N2

Additional Name Information

Pos: 2300

Max: 2

Detail - Optional

Loop: N1

Elements: 2

User Option (Usage): Used
Purpose: To specify additional names

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N201	93	Name	M	AN	1/60	Must use
		Description: Free-form name				
N202	93	Name	O	AN	1/60	Used
		Description: Free-form name				

N3 Party Location

Pos: 2400	Max: 1
Detail - Mandatory	
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				
N302	166	Address Information	O	AN	1/55	Used
		Description: Address information				

N4 Geographic Location

Pos: 2500	Max: 1
Detail - Mandatory	
Loop: N1	Elements: 4

User Option (Usage): Used

Purpose: To specify the geographic place of the named party

Element Summary:

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

Syntax Rules:

1. E0207 - Only one of N402 or N407 may be present.
2. C0605 - If N406 is present, then N405 is required.
3. C0704 - If N407 is present, then N404 is required.

Comments:

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

Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

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

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level- Order	M	1		Must use
0500	PRF	Purchase Order Reference	M	1		Must use
1500	REF	Reference Information	M	2		Must use
0100		Loop HL	M		200000	Must use

HL Hierarchical Level- Order

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	Hierarchical ID Number	M	AN	1/12	Must use
Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure						
HL02	734	Hierarchical Parent ID Number	M	AN	1/12	Must use
Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to						
HL03	735	Hierarchical Level Code	M	ID	1/2	Must use
Description: Code defining the characteristic of a level in a hierarchical structure						
CodeList Summary (Total Codes: 250, Included: 1)						
<u>Code</u> <u>Name</u>						
O Order						

Comments:

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

PRF

Purchase Order Reference

Pos: 0500

Max: 1

Detail - Mandatory

Loop: HL

Elements: 1

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PRF01	324	Purchase Order Number	M	AN	1/22	Must use
Description: Identifying number for Purchase Order assigned by the orderer/purchaser						

Semantics:

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

REF Reference Information

Pos: 1500	Max: 2
Detail - Mandatory	
Loop: HL	Elements: 2

User Option (Usage): Must use

Purpose: To specify identifying information

Element Summary:

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

Description: Code qualifying the Reference Identification

CodeList Summary (Total Codes: 1731, Included: 2)

Code Name

CO Customer Order Number

User Note 1:

Mandatory - Required if present on the Purchase Order

IA Internal Vendor Number

User Note 1:

Mandatory

REF02	127	Reference Identification	M	AN	1/50	Must use
-------	-----	--------------------------	---	----	------	----------

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

Syntax Rules:

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

Semantics:

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

Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

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

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level-Pack	M	1		Must use
1900	MAN	Marks and Numbers Information	M	1		Must use
0100		Loop HL	M		200000	Must use

HL Hierarchical Level-Pack

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	Hierarchical ID Number	M	AN	1/12	Must use
Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure						
HL02	734	Hierarchical Parent ID Number	M	AN	1/12	Must use
Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to						
HL03	735	Hierarchical Level Code	M	ID	1/2	Must use
Description: Code defining the characteristic of a level in a hierarchical structure						
CodeList Summary (Total Codes: 250, Included: 2)						
<u>Code</u> <u>Name</u>						
P Pack						
T Shipping Tare						

Comments:

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

MAN Marks and Numbers Information

Pos: 1900	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

User Option (Usage): Must use

Purpose: To indicate identifying marks and numbers for shipping containers

Element Summary:

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

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

CodeList Summary (Total Codes: 21, Included: 2)

Code Name

CP Carrier-Assigned Package ID Number

User Note 1:

Mandatory

GM EAN.UCC Serial Shipping Container Code (SSCC) and Application Identifier

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

User Note 1: When MAN01 = GM, Min/Max is 20/20

Syntax Rules:

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

Semantics:

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

Comments:

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

Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

User Option (Usage): Must use

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

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level-Item	M	1		Must use
0200	LIN	Item Identification	M	1		Must use
0300	SN1	Item Detail (Shipment)	M	1		Must use
0700	PID	Product/Item Description	M	1		Used

HL Hierarchical Level-Item

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>				
HL01	628	Hierarchical ID Number	M	AN	1/12	Must use				
Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure										
HL02	734	Hierarchical Parent ID Number	M	AN	1/12	Must use				
Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to										
HL03	735	Hierarchical Level Code	M	ID	1/2	Must use				
Description: Code defining the characteristic of a level in a hierarchical structure										
CodeList Summary (Total Codes: 250, Included: 1)										
<table><tr><th><u>Code</u></th><th><u>Name</u></th></tr><tr><td>I</td><td>Item</td></tr></table>							<u>Code</u>	<u>Name</u>	I	Item
<u>Code</u>	<u>Name</u>									
I	Item									

Comments:

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

LIN

Item Identification

Pos: 0200

Max: 1

Detail - Mandatory

Loop: HL

Elements: 7

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN01	350	Assigned Identification	M	AN	1/20	Must use
Description: Alphanumeric characters assigned for differentiation within a transaction set User Note 1: Line Sequence Number from the Purchase Order must be returned on the 856.						
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: 519, Included: 1) Code Name BP Buyer's Part Number						
LIN03	234	Product/Service ID	M	AN	1/48	Must use
Description: Identifying number for a product or service						
LIN04	235	Product/Service ID Qualifier	X	ID	2/2	Used
Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) CodeList Summary (Total Codes: 519, Included: 2) Code Name UP UCC - 12 VN Vendor's (Seller's) Item Number						
LIN05	234	Product/Service ID	X	AN	1/48	Used
Description: Identifying number for a product or service						
LIN06	235	Product/Service ID Qualifier	X	ID	2/2	Used
Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) CodeList Summary (Total Codes: 519, Included: 2) Code Name UP UCC - 12 VN Vendor's (Seller's) Item Number						
LIN07	234	Product/Service ID	X	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.

SN1 Item Detail (Shipment)

Pos: 0300	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

User Option (Usage): Must use

Purpose: 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>
SN102	382	Number of Units Shipped	M	R	1/10	Must use
Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set						
SN103	355	Unit or Basis for Measurement Code	M	ID	2/2	Must use
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: 844, Included: 3)						
<u>Code</u> <u>Name</u>						
EA Each						
PK Package						
PR Pair						

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.
2. SN105 is quantity ordered.

Comments:

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

PID Product/Item Description

Pos: 0700	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Used

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PID01	349	Item Description Type	M	ID	1/1	Must use
Description: Code indicating the format of a description CodeList Summary (Total Codes: 3, Included: 1) <u>Code</u> <u>Name</u> F Free-form						
PID02	750	Product/Process Characteristic Code	M	ID	2/3	Must use
Description: Code identifying the general class of a product or process characteristic CodeList Summary (Total Codes: 238, Included: 1) <u>Code</u> <u>Name</u> 08 Product						
PID05	352	Description	M	AN	1/80	Must use
Description: A free-form description to clarify the related data elements and their content						

Syntax Rules:

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

Semantics:

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

Comments:

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

CTT Transaction Totals

Pos: 0100	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 1

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CTT01	354	Number of Line Items	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: 0200	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SE01	96	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						
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.