856 Ship Notice/Manifest

X12/V4010/856 : 856 Ship Notice/Manifest

Version: 1.1

Table of Contents

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
040	DTM	Date/Time Reference	O	10			Must use

Detail:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
LOOP ID - HL					200000	C2/010L	
010	HL	Hierarchical Level	M	1			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			Must use
210	FOB	F.O.B. Related Instructions	O	1			Used
LOOP ID - N1					200		
220	N1	Name	O	1			Must use
240	N3	Address Information	O	2			Must use
250	N4	Geographic Location	O	1			Must use
LOOP ID - HL					200000	C2/010L	
010	HL	Hierarchical Level	M	1			Must use
050	PRF	Purchase Order Reference	O	1			Must use
150	REF	Reference Identification	O	>1			Must use
LOOP ID - HL					200000	C2/010L	
010	HL	Hierarchical Level	M	1			Must use
190	MAN	Marks and Numbers	O	>1			Must use
LOOP ID - HL					200000	C2/010L	
010	HL	Hierarchical Level	M	1			Must use
020	LIN	Item Identification	O	1			Must use
030	SN1	Item Detail (Shipment)	O	1			Must use
040	SLN	Subline Item Detail	O	1000			Must use
070	PID	Product/Item Description	O	200			Must use
150	REF	Reference Identification	O	>1			Used

Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage

| 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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Daikin IDs:

Production: ZZ:7635535330P
Test: ZZ:7635535330T

Change Log:

11/14/2023
.   REF segment at HL(O) - Added IA qualifier.
.   SLN segment - added to HL(I) loop
.   SN101 - Updated usage to "Used"
.   SN103 - The following qualifiers have been updated to reflect their X12 Standard Values:

    .   Case - Corrected from CS to CA per standard
    .   Square Foot - Corrected from F2 to SF per standard
    .   Gallon - Corrected from GL to GA per standard
.   SN103 -Added the following qualifier

    .   OZ - Ounce av
.   REF segment at HL(I) loop - Updated Usage to "Used"

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
All valid standard codes are used. (Total Codes: 298)

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).

BSN   Beginning Segment for Ship Notice

Pos: 020   Max: 1
Heading - Mandatory
Loop: N/A   Elements: 5

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

Code List 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
User Note 1: Unique Shipment ID Number

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

Description: Date expressed as CCYYMMDD
User Note 1: ASN create date

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)
User Note 1: ASN create time

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BSN05	1005	**Hierarchical Structure Code**	O	ID	4/4	Used

Description: Code indicating the hierarchical application structure of a transaction set that utilizes the HL segment to define the structure of the transaction set
All valid standard codes are used. (Total Codes: 61)

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: 040   Max: 10
Heading - Optional
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

Code List 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**	X	DT	8/8	Must use

Description: Date expressed as CCYYMMDD

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.

User Note 1:

Both the 011 and 017 qualifiers are Must Use for all transactions.

Loop Hierarchical Level

Pos: 010	**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:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
010	HL	Hierarchical Level	M	1		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		Must use
210	FOB	F.O.B. Related Instructions	O	1		Used
220		Loop N1	O		200	Used
010		Loop HL	M		200000	Must use

HL   Hierarchical Level

Pos: 010	**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

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

Code List 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.

TD1   Carrier Details (Quantity and Weight)

Pos: 110	Max: 20
Detail - Optional	
Loop: HL	**Elements: 4**

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
TD102	80	**Lading Quantity**	X	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

Code List Summary (Total Codes: 51, Included: 3)

Code	Name
G	Gross Weight
N	Actual Net Weight
T	Tare Weight

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD107	81	**Weight**	X	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**	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

Code List Summary (Total Codes: 794, Included: 2)

Code	Name
KG	Kilogram
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.

User Note 1:

TD1 segment can be repeated for each weight type (Gross, Net and Tare)

TD5   Carrier Details (Routing Sequence/Transit Time)

Pos: 120	Max: 12
Detail - Optional	
Loop: HL	Elements: 2

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**	X	ID	1/2	Used

> **Description:** Code designating the system/method of code structure used for Identification Code (67)
>
> **Code List 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**	X	AN	2/80	Used

> **Description:** Code identifying a party or other code
> **User Note 1:** Min/max: 2/4

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 Identification

Pos: 150	Max: >1
Detail - Optional	
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**	M	ID	2/3	Must use

Description: Code qualifying the Reference Identification
User Note 1: One of either Bill of Lading, Air Waybill, 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.

Code List Summary (Total Codes: 1503, Included: 8)

Code	Name
2I	Tracking Number
AW	Air Waybill Number
BM	Bill of Lading Number
CN	Carrier's Reference Number (PRO/Invoice)
L1	Letters or Notes
OC	Ocean Container Number
PK	Packing List Number
TB	Trucker's Bill of Lading

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification**	X	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.

FOB   **F.O.B. Related Instructions**

Pos: 210	**Max: 1**
Detail - Optional	
Loop: HL	**Elements: 1**

User Option (Usage): Used

Purpose: To specify transportation instructions relating to shipment

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
FOB01	146	**Shipment Method of Payment**	M	ID	2/2	Must use

> **Description:** Code identifying payment terms for transportation charges

> **Code List Summary** (Total Codes: 28, Included: 7)
>
> | Code | Name |
> |---|---|
> | BP | Paid by Buyer |
> | CC | Collect |
> | DF | Defined by Buyer and Seller |
> | PP | Prepaid (by Seller) |
> | PS | Paid by Seller |
> | PU | Pickup |
> | TP | Third Party Pay |

Syntax Rules:

1. C0302 - If FOB03 is present, then FOB02 is required.
2. C0405 - If FOB04 is present, then FOB05 is required.
3. C0706 - If FOB07 is present, then FOB06 is required.
4. C0809 - If FOB08 is present, then FOB09 is required.

Semantics:

1. FOB01 indicates which party will pay the carrier.
2. FOB02 is the code specifying transportation responsibility location.
3. FOB06 is the code specifying the title passage location.
4. FOB08 is the code specifying the point at which the risk of loss transfers. This may be different than the location specified in FOB02/FOB03 and FOB06/FOB07.

Loop Name

<table>
<tr><td>Pos: 220</td><td>Repeat: 200</td></tr>
<tr><td colspan="2" align="center">Optional</td></tr>
<tr><td>Loop: N1</td><td>Elements: N/A</td></tr>
</table>

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

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
220	N1	Name	O	1		Must use
240	N3	Address Information	O	2		Must use
250	N4	Geographic Location	O	1		Must use

N1   Name

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

User Option (Usage): Must use
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

Code List Summary (Total Codes: 1312, Included: 2)

Code	Name
SF	Ship From
ST	Ship To

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

Description: Free-form name

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

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

Code List Summary (Total Codes: 215, Included: 1)

Code	Name
92	Assigned by Buyer or Buyer's Agent

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

Description: Code identifying a party or other code
User Note 1: For N101 = ST, If provided on the order (850/860), required on the ASN

Required when N101 = SF, should be the value on the 850/860 provided in N104 when N101 = VN

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.

N3 Address Information

User Option (Usage): Must use
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: 250	**Max: 1**
Detail - Optional	
Loop: N1	**Elements: 6**

User Option (Usage): Must use
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	Must use

    Description: Free-form text for city name

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N402	156	**State or Province Code**	O	ID	2/2	Used

    Description: Code (Standard State/Province) as defined by appropriate government agency
    User Note 1: N402 or N406 (N405 = CO) should be sent

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N403	116	**Postal Code**	O	ID	3/15	Must use

    Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N404	26	**Country Code**	O	ID	2/3	Must use

    Description: Code identifying the country

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N405	309	**Location Qualifier**	X	ID	1/2	Must use

    Description: Code identifying type of location

    Code List Summary (Total Codes: 172, Included: 1)

Code	Name
CO	County/Parish and State

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N406	310	**Location Identifier**	O	AN	1/30	Used

    Description: Code which identifies a specific location
    User Note 1: N402 or N406 (N405 = CO) should be sent

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.

Loop Hierarchical Level

Pos: 010	**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:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
010	HL	Hierarchical Level	M	1		Must use
050	PRF	Purchase Order Reference	O	1		Must use
150	REF	Reference Identification	O	>1		Must use
010		Loop HL	M		200000	Must use

HL   Hierarchical Level

Pos: 010	**Max: 1**
Detail - Mandatory	
Loop: HL	**Elements: 4**

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

Code List Summary (Total Codes: 170, Included: 1)

Code	Name
O	Order

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL04	736	**Hierarchical Child Code**	O	ID	1/1	Used

Description: Code indicating if there are hierarchical child data segments subordinate to the level being described
All valid standard codes are used. (Total Codes: 2)

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: 3**

User Option (Usage): Must use
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
User Note 1: Purchase order numbers must be between 6/8 characters long and numeric

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PRF02	328	**Release Number**	O	AN	1/30	Used

Description: Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction
User Note 1: Return if present on the order (850/860)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PRF04	373	**Date**	O	DT	8/8	Used

Description: Date expressed as CCYYMMDD
User Note 1: PO Date

Semantics:

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

REF   Reference Identification

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

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**	M	ID	2/3	Must use

Description: Code qualifying the Reference Identification
User Note 1: REF01 = IA is mandatory and is derived from the order (850/860). REF01 = CO must be returned if provided on the order (850/860).

Code List Summary (Total Codes: 1503, Included: 3)

Code	Name
CO	Customer Order Number
IA	Internal Vendor Number
PK	Packing List Number

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

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier
User Note 1: Required when REF01=IA or PK

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF03	352	**Description**	X	AN	1/80	Used

Description: A free-form description to clarify the related data elements and their content
User Note 1: Required when REF01=CO

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: 010	**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:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
010	HL	Hierarchical Level	M	1		Must use
190	MAN	Marks and Numbers	O	>1		Must use
010		Loop HL	M		200000	Must use

HL   Hierarchical Level

| **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

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

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

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

> **Code List Summary** (Total Codes: 170, Included: 2)

Code	Name
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

Pos: 190   Max: >1
Detail - Optional
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)
User Note 1: One of GM or CP must be provided.
User Note 2: MAN01 = CP for parcel shipments. MAN01 = GM for warehouse/DC shipments

Code List Summary (Total Codes: 20, Included: 2)

Code	Name
CP	Carrier-Assigned Package ID Number
GM	SSCC-18 and Application Identifier

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.

Loop Hierarchical Level

Pos: 010	**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:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
010	HL	Hierarchical Level	M	1		Must use
020	LIN	Item Identification	O	1		Must use
030	SN1	Item Detail (Shipment)	O	1		Must use
040	SLN	Subline Item Detail	O	1000		Must use
070	PID	Product/Item Description	O	200		Must use
150	REF	Reference Identification	O	>1		Used

HL   Hierarchical Level

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

Code List 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.

LIN   **Item Identification**

Pos: 020	**Max: 1**
Detail - Optional	
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**	O	AN	1/20	Must use

Description: Alphanumeric characters assigned for differentiation within a transaction set
User Note 1: Must match value sent on the Order (850/860)

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)
User Note 1: Return if present on the 850/860

Code List Summary (Total Codes: 477, Included: 1)

Code	Name
BP	Buyer'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**	X	ID	2/2	Used

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

Code List Summary (Total Codes: 477, Included: 1)

Code	Name
VP	Vendor's (Seller's) Part Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN05	234	**Product/Service ID**	X	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**	X	ID	2/2	Used

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

Code List Summary (Total Codes: 477, Included: 1)

Code	Name
CH	Country of Origin Code

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

Description: Identifying number for a product or service
User Note 1: 2 character ISO Code

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: 030	**Max: 1**
Detail - Optional	
Loop: HL	**Elements: 3**

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN101	350	**Assigned Identification**	O	AN	1/20	Used

Description: Alphanumeric characters assigned for differentiation within a transaction set

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

Code List Summary (Total Codes: 794, Included: 43)

Code	Name
05	5 Meter
12	12 PCS
18	55 Gallon Drum
30	30 Gallon Drum
5C	5 Gallon Drum
5I	Standard Cubic Foot
B8	Board Foot
CA	Case
CM	Centimeter
CY	Cubic Yard
DA	Days
DH	Miles
DO	Dollars, U.S.
DZ	Dozen
EA	Each
FT	Foot
GA	Gallon
GS	Gross
HF	Hundred Feet
HH	Hundred Cubic Feet
HR	Hours
IN	Inch
KG	Kilogram
LB	Pound
LT	Liter
MM	Millimeter
MO	Months
MR	Meter
OP	Two pack
OZ	Ounce - Av
P4	Four-pack
P6	Six pack
P9	Nine pack

PR	Pair
PT	Pint
QT	Quart
RK	30FT Roll
SF	Square Foot
SI	Square Inch
SM	Square Meter
TN	Net Ton (2,000 LB).
UN	Unit
YD	Yard

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.

SLN   Subline Item Detail

Pos: 040	Max: 1000
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Must use
Purpose: To specify product subline detail item data

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SLN01	350	**Assigned Identification**	M	AN	1/20	Must use

Description: Alphanumeric characters assigned for differentiation within a transaction set

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SLN03	662	**Relationship Code**	M	ID	1/1	Must use

Description: Code indicating the relationship between entities
All valid standard codes are used. (Total Codes: 5)

Syntax Rules:

1. P0405 - If either SLN04 or SLN05 is present, then the other is required.
2. C0706 - If SLN07 is present, then SLN06 is required.
3. C0806 - If SLN08 is present, then SLN06 is required.
4. P0910 - If either SLN09 or SLN10 is present, then the other is required.
5. P1112 - If either SLN11 or SLN12 is present, then the other is required.
6. P1314 - If either SLN13 or SLN14 is present, then the other is required.
7. P1516 - If either SLN15 or SLN16 is present, then the other is required.
8. P1718 - If either SLN17 or SLN18 is present, then the other is required.
9. P1920 - If either SLN19 or SLN20 is present, then the other is required.
10. P2122 - If either SLN21 or SLN22 is present, then the other is required.
11. P2324 - If either SLN23 or SLN24 is present, then the other is required.
12. P2526 - If either SLN25 or SLN26 is present, then the other is required.
13. P2728 - If either SLN27 or SLN28 is present, then the other is required.

Semantics:

1. SLN01 is the identifying number for the subline item.
2. SLN02 is the identifying number for the subline level. The subline level is analogous to the level code used in a bill of materials.
3. SLN03 is the configuration code indicating the relationship of the subline item to the baseline item.
4. SLN08 is a code indicating the relationship of the price or amount to the associated segment.

Comments:

1. See the Data Element Dictionary for a complete list of IDs.
2. SLN01 is related to (but not necessarily equivalent to) the baseline item number. Example: 1.1 or 1A might be used as a subline number to relate to baseline number 1.
3. SLN09 through SLN28 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

PID **Product/Item Description**

User Option (Usage): Must use
Purpose: To describe a product or process in coded or free-form format

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID01	349	**Item Description Type**	M	ID	1/1	Must use

Description: Code indicating the format of a description

Code List Summary (Total Codes: 3, Included: 1)

Code	Name
F	Free-form

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID02	750	**Product/Process Characteristic Code**	O	ID	2/3	Must use

Description: Code identifying the general class of a product or process characteristic

Code List Summary (Total Codes: 217, Included: 1)

Code	Name
08	Product

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID05	352	**Description**	X	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.

REF   Reference Identification

Pos: 150   Max: >1
Detail - Optional
Loop: HL   Elements: 2

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

Code List Summary (Total Codes: 1503, Included: 2)

Code	Name
L1	Letters or Notes
SE	Serial Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification**	X	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.

CTT   Transaction Totals

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

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.

Sample Data

Sample 856

```
ISA*00*          *00*          *ZZ*5403621234     *ZZ*7635535330T   *230811*0049*U*00401*000000009*0*T*>~
GS*SH*5403621234*7635535330T*20230906*1636*24609*X*004010~
ST*856*27386~
BSN*00*XXX984454654643*20230901*203446*0001~
DTM*011*20230906~
DTM*017*20230922~
HL*1**S~
TD5**2*UPSN~
REF*BM*XXX984454654643~
N1*ST*Ship To Corporation Name*92*DAIXXXXXX~
N3*ADDRESS LINE 1~
N4*CITY*ST*POSTALCODE*US*CO~
N1*SF*Your Corporation Name*92*USCHICA100XXX~
N3*ADDRESS LINE 1~
N4*CITY*ST*POSTALCODE*US*CO~
HL*2*1*O~
PRF*9999615~
REF*IA*999901~
HL*3*2*P~
MAN*CP*XXX953213223213354~
HL*4*3*I~
LIN*1*BP*900000000*VP*X32154~
SN1**28*EA~
SLN*1**I~
PID*F*08***PRODUCT DESCRIPTION
HL*5*2*P~
MAN*CP*XXX953213223213363~
HL*6*5*I~
LIN*1*BP*900000000*VP*X32154~
SN1**4*EA~
SLN*1**I~
PID*F*08***PRODUCT DESCRIPTION~
HL*7*2*P~
MAN*CP*XXX953213223213790~
HL*8*7*I~
LIN*1*BP*900000000*VP*X32154~
SN1**18*EA~
SLN*1**I~
PID*F*08***PRODUCT DESCRIPTION
CTT*8~
SE*39*27386~
GE*1*24609~
IEA*1*000024609~
```