**VERSION 4010**

# 856 Advanced Ship Notice

**Functional Group SH**

This Draft Standard for Trial Use contains the format and establishes the data contents of the Ship Notice 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. NO. | SEG. ID | NAME | REQ. DES. | MAX USE | LOOP REPEAT |
|---|---|---|---|---|---|---|
| **Required** | 010 | ST | Transaction Set Header | M | 1 | |
| **Required** | 020 | BSN | Beginning Segment for Ship Notice | M | 1 | |

## Detail

| | POS. NO. | SEG. ID | NAME | REQ. DES. | MAX USE | LOOP REPEAT |
|---|---|---|---|---|---|---|
| | | | **LOOP ID - HLS** | | | **200000** |
| **Required** | 010 | HL | Hierarchical Level – Shipment | M | 1 | |
| **Required** | 120 | TD5 | Carrier Details (Routing Sequence/Transit Time | M | 12 | |
| **Required** | 150 | REF | Reference Identification | M | >1 | |
| **Required** | 200 | DTM | Date/Time Reference | M | 10 | |
| | | | LOOP ID – N1 | | | 200 |
| **Required** | 220 | N1 | Name | M | 1 | |
| | | | **LOOP ID – HLO** | | | **200000** |
| **Required** | 010 | HL | Hierarchical Level – Order | M | 1 | |
| **Required** | 050 | PRF | Purchase Order Reference | M | 1 | |
| | | | **LOOP ID – N1** | | | **200** |
| **Required** | 220 | N1 | Name | M | 1 | |
| **Required** | 240 | N3 | Address Information | O | 1 | |
| **Required** | 250 | N4 | Geographic Location | O | 1 | |
| | | | **LOOP ID – HLP** | | | **200000** |
| **Required** | 010 | HL | Hierarchical Level – Pack | M | 1 | |
| **Required** | 060 | PO4 | Item Physical Details | O | 1 | |
| **Required** | 190 | MAN | Marks and Numbers | M | 1 | |
| | | | **LOOP ID – HLI** | | | **200000** |
| **Required** | 010 | HL | Hierarchical Level – Item | M | 1 | |
| **Required** | 020 | LIN | Item Identification | M | 1 | |
| **Required** | 030 | SN1 | Item Detail (Shipment) | M | 1 | |

## Summary

| | POS. NO. | SEG. ID | NAME | REQ. DES. | MAX USE | LOOP REPEAT |
|---|---|---|---|---|---|---|
| **Required** | 010 | CTT | Transaction Totals | M | 1 | |
| **Required** | 020 | SE | Transaction Set Totals | M | 1 | |

# Business Example of an 810 Document:

| EDI Transmission Data | Explanation |
|---|---|
| **ST*856*5970~** | **856** is the Transaction Set Identifier Code for Ship Notice Transaction Set.<br>**5970** is the transaction set control number. |
| **BSN*00*S002579128*20040401~** | **00** is the transaction set purpose code for original<br>**S005666869** is the shipment ID number<br>**20040401** is the date |
| **HL*1**S~** | **1** indicates the first level of the hierarchy<br>**S** is the hierarchal level code for shipment |
| **TD5*B*2*INDUPSCR4562~** | **B** is the routing sequence code<br>**2** is the identification code qualifier for standard carrier<br>alpha code (SCAC)<br>**INDUPSCR4562** is the identification code |
| **REF*BM*INDUPSCR4562~**<br>**REF*CN*05759259~** | **BM** and **CN** are the reference identification qualifiers for the reference codes that follow them |
| **DTM*011*20040401~** | **011** is the date qualifier for date shipped<br>**20040401** is the date referenced by DTM01 |
| **N1*ST*STORE_NAME*09*0229457420123~** | **ST**, Ship To, precedes the free-form name of the recipient, **STORE_NAME**<br>**09** is the code for the recipient's DUNS+4 number and precedes that number, **0229457420123** |
| **HL*2*1*O~** | **2** indicates the second level of the hierarchy<br>**1** indicates the hierarchal parent level<br>**O** is the hierarchal level code for order |
| **PRF*059-0783653-0551~** | **059-0783653-0551** is the purchase order number |
| **N1*BY**92*0551~** | **BY** is the entity identifier code for buying party<br>**92** indicates the code is buyer assigned<br>**0551** is the identification code |
| **N3*123 WEST STREET~** | **123 WEST STREET** is the street address of the recipient |
| **N4*BOSTON*MA*02135~** | **BOSTON** is the city name of the recipient<br>**MA** is the state code<br>**02135** is the zip code |
| **HL*3*2*P~** | **3** indicates the second level of the hierarchy<br>**2** indicates the hierarchal parent level<br>**P** is the hierarchal level code for pack |
| **PO4*1*12*EA~** | **1** is the number of inner containers<br>**12** is the size of the supplier units in the pack<br>**EA** is the unit or basis of measurement code for each |
| **MAN*GM*00097803160058765944~** | **GM** is the marks and numbers qualifier for UCC-128 format code, **00097803160058765944** which follows |
| **HL*4*3*I~** | **4** indicates the second level of the hierarchy<br>**3** indicates the hierarchial parent level<br>**I** is the hierarchial level code for item |
| **LIN**CB*059050474*IB*0736400117~** | **CB** is the product ID qualifier for buyer's catalog #<br>**IB** is the product ID qualifier for ISBN |

| | |
|---|---|
| **SN1*7*8*EA~** | **7** is the assigned identification number<br>**8** is the number of units shipped and<br>**EA** is the unit or basis of measurement code |
| **LIN**CB*059050474*IB*0736400117~** | **CB** is the product ID qualifier for buyer's catalog #<br>**IB** is the product ID qualifier for ISBN |
| **CTT*1~** | **1** is the number of line items in the ship notice, |
| **SE*22*5970~** | **22** is the total number of segments included in the ship notice, including ST and SE segments<br>**5970** is the identifying set control number matching ST02 segment |

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**Segment:** **ST** Transaction Set Header
**Position:** 010
**Level:** Heading
**Loop:** ____
**Usage:** Mandatory

**Max Use:** **1**
**Purpose:** To indicate the start of a transaction set and to assign a control number.
**Semantic:** 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).

**Data Element Summary:**

| | Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|---|
| **Required** | **ST01** | **143** | **Transaction Set Header Identifier**<br>Code uniquely identifying a Transaction Set<br>**856 Ship Notice/Manifest** | **M/Z** | **ID** | **3/3** |
| **Required** | **ST02** | **329** | **Transaction Set Control Number**<br>Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set | **M** | **AN** | **4/9** |

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**Segment:** **BSN** Beginning Segment for Ship Notice
**Position:** 020

**Loop:** ____
**Level:** Heading
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To transmit identifying numbers, dates, and other basic data relating to the transaction set
**Syntax:** **1.** If BSN07 is present, then BSN06 is required.
**Semantic:** **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:** BSN06 and BSN07 differentiate the functionality of use for the transaction set.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **BSN01** | **353** | **Transaction Set Purpose Code**<br>Code identifying purpose of transaction set<br>**0 Original** | **M** | **ID** | **2/2** |
| **BSN02** | **396** | **Shipment Information**<br>A unique control number assigned by the original shipper to identify a specific shipment. This must be a unique number assigned by the vendor/shipper which can be used to identify the shipment and to possibly reconcile the electronic packing slip to the printed packing slip document sent with the goods. | **M** | **AN** | **2/30** |
| **BSN03** | **373** | **Date**<br>Date expressed as CCYYMMDD | **M** | **DT** | **8/8** |
| **BSN04** | **337** | **Time**<br>Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) | **M** | **TM** | **4/8** |
| **BSN05** | **1005** | **Hierarchical Structure Code**<br>Code indicating the hierarchical application structure of a transaction set that utilizes the HL segment to define the structure of the transaction set. | **M** | **ID** | **4/4** |

**Segment:** **HL** Hierarchical Level – Shipment
**Position:** 010
**Loop:** HLS Mandatory
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments
**Syntax:**
**Semantic:**
**Comments:** **1.** The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
The HL segment defines a top-down/left-right ordered structure.
**2.** HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
**3.** HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
**4.** HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
**5.** HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **HL01** | **628** | **Hierarchical ID Number**<br>A unique number assigned by the sender to identify a particular data segment in a hierarchical structure. | **M** | **AN** | **1/12** |
| **HL02** | **734** | **Hierarchical Parent ID Number**<br>Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to. | **O** | **AN** | **1/12** |
| **HL03** | **735** | **Hierarchical Level Code**<br>Code defining the characteristic of a level in a hierarchical structure<br>**S Shipment** | **M** | **ID** | **1/2** |

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**Segment:** **TD5** Carrier details (Routing Sequence /Transit Time)
**Position:** 120
**Loop:** HLS M
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 12
**Purpose:** To specify the carrier and sequence of routing and provide transit time information
**Syntax:** **1.** At least one of TD502 TD504 TD505 TD506 or TD512 is required.
**2.** If TD502 is present, then TD503 is required.
**3.** If TD507 is present, then TD508 is required.
**4.** If TD510 is present, then TD511 is required.
**5.** If TD513 is present, then TD512 is required.
**6.** If TD514 is present, then TD513 is required.
**7.** If TD515 is present, then TD512 is required.
**Semantic:** **1.** TD515 is the country where the service is to be performed
**Comments:** When specifying a routing sequence to be used for the shipment movement in lieu of Specifying each carrier within the movement, use TD502 to identify the party responsible for defining the routing sequence, and use TD503 to identify the actual routing sequence, specified by the party identified in TD502.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **TD501** | **133** | **Routing Sequence Code**<br>Code describing the relationship of a carrier to a specific shipment movement | **M** | **ID** | **1/2** |
| **TD502** | **66** | **Identification Code Qualifier**<br>Code designating the system/method of code structure used for Identification Code (67) | **M** | **ID** | **1/2** |
| **TD503** | **67** | **Identification Code**<br>Code identifying a party or other code | **M** | **AN** | **2/80** |

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**Segment:** **REF** Reference Identification
**Position:** 150
**Loop:** HLS
**Level:** Detail
**Usage:** Mandatory
**Max Use:** >1
**Purpose:** To specify identifying information
**Syntax:** **1.** At least one of REF02 or REF03 is required.
**2.** If either C04003 or C04004 is present, then the other is required.
**3.** If either C04005 or C04006 is present, then the other is required.
**Comments:** REF04 contains data relating to the value cited in REF02.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **REF01** | **128** | **Reference Identification Qualifier**<br>Code qualifying the Reference Identification | **M** | **ID** | **2/3** |
| **REF02** | **127** | **Reference Identification**<br>Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier | **M** | **AN** | **1/30** |

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**Segment:** **DTM** Date/Time Reference
**Position:** 200
**Loop:** HLS M
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 10
**Purpose:** To specify pertinent dates and times
**Syntax:** **1.** At least one of DTM02 DTM03 or DTM05 is required.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **DTM01** | **374** | **Date/Time Qualifier**<br>Code specifying type of date or time, or both date and time | **M** | **ID** | **3/3** |
| **DTM02** | **373** | **Date**<br>Date expressed as CCYYMMDD | **M** | **DT** | **8/8** |

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**Segment:** **N1** Name
**Position:** 220
**Loop:** N1 M
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To identify a party by type of organization, name, and code
**Syntax:** **1.** At least one of N102 or N103 is required.
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.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | Attributes | | Min/Max Length |
|---|---|---|---|---|---|
| **N101** | **98** | **Entity Identifier Code**<br>Code identifying an organizational entity, a physical location, property or an individual<br>**ST Ship To** | **M** | **ID** | **2/3** |
| **N102** | **93** | **Name**<br>Free-form name | **M** | **AN** | **1/60** |
| **N103** | **66** | **Identification Code Qualifier**<br>Code designating the system/method of code structure used for Identification Code (67)<br>**92 Assigned by Buyer or Buyer's Agent** | **M** | **ID** | **1/2** |
| **N104** | **67** | **Identification Code**<br>Code identifying a party or other code.<br>*This is the location code as defined by N103. The location code may be a formal number, e.g. DUNS, or it may be assigned by either the buyer or seller. The location refers to a store, warehouse, distribution center, plant, etc. Location codes are used to alleviate the need to send complete names and addresses.* | **M** | **AN** | **2/80** |

**Segment:** **HL** Hierarchical Level – Order
**Position:** 010
**Loop:** HLO
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments
**Comments:** **1.** The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data. The HL segment defines a top-down/left-right ordered structure.
**2.** HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
**3.** HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
**4.** HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
**5.** HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **HL01** | **628** | **Hierarchical ID Number**<br>A unique number assigned by the sender to identify a particular data segment in a hierarchical structure | **M** | **AN** | **1/12** |
| **HL02** | **734** | **Hierarchical Parent ID Number**<br>Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to. | **M** | **AN** | **1/12** |
| **HL03** | **735** | **Hierarchical Level Code**<br>Code defining the characteristic of a level in a hierarchical structure<br>**O Order** | **M** | **ID** | **1/2** |

**Segment:** **PRF** Purchase Order Reference
**Position:** 050
**Loop:** HLO
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To provide reference to a specific purchase order
**Semantic:** **1.** PRF04 is the date assigned by the purchaser to purchase order.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **PRF01** | **324** | **Purchase Order Number**<br>Identifying number for Purchase Order assigned by the orderer/purchaser<br>*Retailer's original purchase order number* | **M** | **AN** | **1/22** |
| **PRF02** | **328** | **Release Number**<br>Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction | **O** | **AN** | **1/30** |
| **PRF03** | **327** | **Change Order Sequence Number**<br>Number assigned by the orderer identifying a specific change or revision to a previously transmitted transaction set | **O** | **AN** | **1/8** |
| **PRF04** | **373** | **Date**<br>Date expressed as CCYYMMDD<br>*Retailer's original purchase order date* | **O** | **DT** | **8/8** |

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**Segment:** **N1** Name
**Position:** 220
**Loop:** N1 M
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To identify a party by type of organization, name, and code
**Syntax:** **1.** At least one of N102 or N103 is required.
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.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **N101** | **98** | **Entity Identifier Code**<br>Code identifying an organizational entity, a physical location, property or an individual<br>**BY Buying Party (Purchaser)** | **M** | **ID** | **2/3** |
| **N102** | **93** | **Name**<br>Free-form name | **X** | **AN** | **1/60** |
| **N103** | **66** | **Identification Code Qualifier**<br>Code designating the system/method of code structure used for Identification Code (67)<br>**92 Assigned by Buyer or Buyer's Agent** | **M** | **ID** | **1/2** |
| **N104** | **67** | **Identification Code**<br>Code identifying a party or other code<br>*This is the location code as defined by N103. The location code may be a formal number, e.g. DUNS, or it may be assigned by either the buyer or seller. The location refers to a store, warehouse, distribution center, plant, etc. Location codes are used to alleviate the need to send complete names and addresses.* | **M** | **AN** | **2/80** |

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**Segment:** **N3** Address Information
**Position:** 240
**Loop:** N1
**Level:** Detail
**Usage:** Optional
**Max Use:** 1
**Purpose:** To specify the location of the named party

**Data Element Summary:**

| | Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|---|
| | **N301** | **166** | **Address Information**<br>Address information | **M** | **AN** | **1/55** |
| | **N302** | **166** | **Address Information**<br>Address information | **O** | **AN** | **1/55** |

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**Segment:** **N4** Geographic Location
**Position:** 250
**Loop:** N1
**Level:** Detail
**Usage:** Optional
**Max Use:** 1
**Purpose:** To specify the geographic place of the named party
**Syntax:** **1.** 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.

**Data Element Summary:**

| | Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|---|
| | **N401** | **19** | **City Name**<br>Free-form text for city name | **M** | **AN** | **2/30** |
| | **N402** | **156** | **State or Province Code**<br>Code (Standard State/Province) as defined by appropriate government agency | **M** | **ID** | **2/2** |
| | **N403** | **116** | **Postal Code**<br>Code defining international postal zone code excluding punctuation and blanks (zip code for United States) | **O** | **ID** | **3/15** |
| | **N404** | **26** | **Country Code**<br>Code identifying the country | **O** | **ID** | **2/3** |

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**Segment:** **HL** Hierarchical Level – Order
**Position:** 010
**Loop:** HLO
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments
**Comments:** **1.** The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data. The HL segment defines a top-down/left-right ordered structure. 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.
**2.** HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.

**3.** 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.
**4.** HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **HL01** | **628** | **Hierarchical ID Number**<br>A unique number assigned by the sender to identify a particular data segment in a hierarchical structure | **M** | **AN** | **1/12** |
| **HL02** | **734** | **Hierarchical Parent ID Number**<br>Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to | **M** | **AN** | **1/12** |
| **HL03** | **735** | **Hierarchical Level Code**<br>Code defining the characteristic of a level in a hierarchical structure<br>**P Pack** | **M** | **ID** | **1/2** |

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**Segment:** **PO4** Item Physical Details
**Position:** 60
**Loop:** HLP
**Level:** Detail
**Usage:** Optional
**Max Use:** 1
**Purpose:** To specify the physical qualities, packaging, weights, and dimensions relating to the item
**Syntax:** **1.** If either PO402 or PO403 is present, then the other is required.
**2.** If PO405 is present, then PO406 is required.
**3.** If either PO406 or PO407 is present, then the other is required.
**4.** If either PO408 or PO409 is present, then the other is required.
**5.** If PO410 is present, then PO413 is required.
**6.** If PO411 is present, then PO413 is required.
**7.** If PO412 is present, then PO413 is required.
**8.** If PO413 is present, then at least one of PO410 PO411 or PO412 is required.
**9.** If PO417 is present, then PO416 is required.
**10.** If PO418 is present, then PO404 is required.
**Semantic:** **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.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **PO401** | **356** | **Pack**<br>The number of inner containers, or number of each if there are no inner containers, per outer container<br>*The number of inner cartons or the number of selling units in the carton if there are no inner packs.* | **O** | **N0** | **1/6** |
| **PO402** | **357** | **Size**<br>Size of supplier units in pack | **X** | **R** | **1/8** |
| **PO403** | **355** | **Unit or Basis for Measurement Code** | **X** | **ID** | **2/2** |

| | | | | | |
|---|---|---|---|---|---|
| | | Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken | | | |
| **PO404** | **103** | **Packaging Code**<br>Code identifying the type of packaging<br>Part 1: Packaging Form<br>Part 2: Packaging Material; if the Data Element is used, then Part 1 is always required | **X** | **AN** | **3/5** |
| **PO405** | **187** | **Weight Qualifier**<br>Code defining the type of weight | **O** | **ID** | **1/2** |
| **PO406** | **384** | **Gross Weight per Pack**<br>Numeric value of gross weight per pack | **X** | **R** | **1/9** |
| **PO407** | **355** | **Unit or Basis for Measurement Code**<br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken | **X** | **ID** | **2/2** |
| **PO408** | **385** | **Gross Volume per Pack**<br>Numeric value of gross volume per pack | **X** | **R** | **1/9** |
| **PO409** | **355** | **Unit or Basis for Measurement Code**<br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken | **X** | **ID** | **2/2** |
| **PO410** | **82** | **Length**<br>Largest horizontal dimension of an object measured when the object is in the upright position | **X** | **R** | **1/8** |
| **PO411** | **189** | **Width**<br>Shorter measurement of the two horizontal dimensions measured with the object in the upright position | **X** | **R** | **1/8** |
| **PO412** | **65** | **Height**<br>Vertical dimension of an object measured when the object is in the upright position | **X** | **R** | **1/8** |
| **PO413** | **355** | **Unit or Basis for Measurement Code**<br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken | **X** | **ID** | **2/2** |
| **PO414** | **810** | **Inner Pack**<br>The number of eaches per inner container | **O** | **N0** | **1/6** |

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**Segment:** **MAN** Marks and Numbers
**Position:** 190
**Loop:** HLP
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To indicate identifying marks and numbers for shipping containers
**Syntax:** **1.** If either MAN04 or MAN05 is present, then the other is required.
**2.** If MAN06 is present, then MAN05 is required.
**Semantic:** **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. MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers. 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.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | Attributes | | Min/Max Length |
|---|---|---|---|---|---|
| **MAN01** | **88** | **Marks and Numbers Qualifier**<br>Code specifying the application or source of Marks and Numbers (87) | **M** | **ID** | **1/2** |
| **MAN02** | **87** | **Marks and Numbers**<br>Marks and numbers used to identify a shipment or parts of a shipment | **M** | **AN** | **1/48** |

**Segment:** **HL** Hierarchical Level – Item
**Position:** 010
**Loop:** HLI
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments
**Comments:** **1.** To identify dependencies among and the content of hierarchically related groups of data segments The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data. The HL segment defines a top-down/left-right ordered structure.
**2.** HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
**3.** HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
**4.** HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
**5.** HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | Attributes | | | Min/Max Length |
|---|---|---|---|---|---|---|
| **HL01** | **628** | **Hierarchical ID Number**<br>A unique number assigned by the sender to identify a particular data segment in a hierarchical structure | **M** | **AN** | **1/12** | |
| **HL02** | **734** | **Hierarchical Parent ID Number**<br>Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to | **M** | **AN** | **1/12** | |
| **HL03** | **735** | **Hierarchical Level Code**<br>Code defining the characteristic of a level in a hierarchical structure | **M** | **ID** | **1/2** | |

**Segment:** **LIN** Item Identification
**Position:** 20
**Loop:** HLI
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To specify basic item identification data
**Syntax:** **1.** If either LIN04 or LIN05 is present, then the other is required.
**2.** If either LIN06 or LIN07 is present, then the other is required.
**3.** If either LIN08 or LIN09 is present, then the other is required.
**4.** If either LIN10 or LIN11 is present, then the other is required.
**5.** If either LIN12 or LIN13 is present, then the other is required.
**6.** If either LIN14 or LIN15 is present, then the other is required.
**7.** If either LIN16 or LIN17 is present, then the other is required.
**8.** If either LIN18 or LIN19 is present, then the other is required.
**9.** If either LIN20 or LIN21 is present, then the other is required.
**10.** If either LIN22 or LIN23 is present, then the other is required.
**11.** If either LIN24 or LIN25 is present, then the other is required.
**12.** If either LIN26 or LIN27 is present, then the other is required.
**13.** If either LIN28 or LIN29 is present, then the other is required.
**14.** If either LIN30 or LIN31 is present, then the other is required.
**Semantic:** **1.** LIN01 is the line item identification
**Comments:** **1.** 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.

**Data Element Summary:**

| | Ref. Des. | Data Element | Name | | Attributes | | Min/Max Length |
|---|---|---|---|---|---|---|---|
| | **LIN01** | **350** | **Assigned Identification**<br>Alphanumeric characters assigned for differentiation within a transaction set | **O** | **AN** | **1/20** | |
| | **LIN02** | **235** | **Product/Service ID Qualifier**<br>Code identifying the type/source of the descriptive number used in Product/Service ID (234)<br>**EN European Article Number (EAN) (2-5-5-1)**<br>**UP U.P.C. Consumer Package Code (1-5-5-1)** | **M** | **ID** | **2/2** | |
| | **LIN03** | **234** | **Product/Service ID**<br>Identifying number for a product or service | **M** | **AN** | **1/48** | |

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**Segment:** **SN1** Item Detail (Shipment)
**Position:** 030
**Loop:** HLI
**Level:** Detail
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To specify line-item detail relative to shipment
**Syntax:** **1.** If either SN105 or SN106 is present, then the other is required.
**Semantic:** **1.** SN101 is the ship notice line-item identification.
**Comments:** **1.** SN103 defines the unit of measurement for both SN102 and SN104.

**Data Element Summary:**

| | Ref. Des. | Data Element | Name | | Attributes | | Min/Max Length |
|---|---|---|---|---|---|---|---|
| | **SN101** | **350** | **Assigned Identification**<br>Alphanumeric characters assigned for differentiation within a transaction set | **O** | **AN** | **1/20** | |
| | **SN102** | **382** | **Number of Units Shipped**<br>Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set | **M** | **R** | **1/10** | |
| | **SN103** | **355** | **Unit or Basis for Measurement Code**<br>Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken | **M** | **ID** | **2/2** | |

**Segment:** **CTT** Transaction Totals
**Position:** 010
**Loop:** _____
**Level:** Summary
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To transmit a hash total for a specific element in the transaction set
**Syntax:** **1.** If either CTT03 or CTT04 is present, then the other is required.
**2.** If either CTT05 or CTT06 is present, then the other is required.
**Comments:** **1.** This segment is intended to provide hash totals to validate transaction completeness and correctness.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **CTT01** | **354** | **Number of Line Items**<br>Total number of line items in the transaction set | **M** | **N0** | **1/6** |

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**Segment:** **SE** Transaction Set Trailer
**Position:** 020
**Loop:** _____
**Level:** Summary
**Usage:** Mandatory
**Max Use:** 1
**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted Segments
(including the beginning (ST) and ending (SE) segments)
**Comments:** **1.** SE is the last segment of each transaction set.

**Data Element Summary:**

| Ref. Des. | Data Element | Name | | Attributes | Min/Max Length |
|---|---|---|---|---|---|
| **SE01** | **96** | **Number of Included Segments**<br>Total number of segments included in a transaction set including ST and SE segments | **M** | **N0** | **1/10** |
| **SE02** | **329** | **Transaction Set Control Number**<br>Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set<br>*This must be the same as in the ST segment (ST02) for the transaction set.* | **M** | **AN** | **4/9** |