# 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 | | | Used |

## Detail:

| Pos | Id | Segment Name | Req | Max Use | Repeat | Notes | Usage |
|---|---|---|---|---|---|---|---|
| **LOOP ID - HL** | | | | | **200000** | **C2/010L** | |
| 010 | HL | Hierarchical Level | M | 1 | | C2/010 | Must use |
| 080 | MEA | Measurements | O | 40 | | | Used |
| 110 | TD1 | Carrier Details (Quantity and Weight) | O | 20 | | | Used |
| 120 | TD5 | Carrier Details (Routing Sequence/Transit Time) | O | 12 | | | Used |
| 130 | TD3 | Carrier Details (Equipment) | O | 12 | | | Used |
| 150 | REF | Reference Identification | O | >1 | | | Used |
| **LOOP ID - N1** | | | | | **200** | | |
| 220 | N1 | Name | O | 1 | | | Used |
| 230 | N2 | Additional Name Information | O | 2 | | | Used |
| 240 | N3 | Address Information | O | 2 | | | Used |
| 250 | N4 | Geographic Location | O | 1 | | | Used |
| **LOOP ID - HL** | | | | | **200000** | **C2/010L** | |
| 010 | HL | Hierarchical Level | M | 1 | | C2/010 | Must use |
| 020 | LIN | Item Identification | O | 1 | | | Used |
| 030 | SN1 | Item Detail (Shipment) | O | 1 | | | Used |
| **LOOP ID - HL** | | | | | **200000** | **C2/010L** | |
| 010 | HL | Hierarchical Level | M | 1 | | C2/010 | Must use |
| 150 | REF | Reference Identification | O | >1 | | | Used |
| **LOOP ID - CLD** | | | | | **200** | | |
| 170 | CLD | Load Detail | O | 1 | | | Used |
| 180 | REF | Reference Identification | O | 200 | | | 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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# 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 | | | | |
| | | **Code Name**<br>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) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

# BSN Beginning Segment for Ship Notice

| Pos: 020 | Max: 1 |
|---|---|
| Heading - Mandatory | |
| Loop: N/A | Elements: 4 |

**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 Name**<br>00 Original<br>01 Cancellation | | | | |
| 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 | | | | |
| 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: 040 | Max: 10 |
|---|---|
| Heading - Optional | |
| Loop: N/A | Elements: 4 |

**User Option (Usage):** Used

**Purpose:** To specify pertinent dates and times

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| DTM01 | 374 | **Date/Time Qualifier** | M | ID | 3/3 | Must use |
| | | **Description:** Code specifying type of date or time, or both date and time | | | | |
| | | **Code Name**<br>011 Shipped<br>017 Estimated Delivery | | | | |
| DTM02 | 373 | **Date** | X | DT | 8/8 | Used |
| | | **Description:** Date expressed as CCYYMMDD | | | | |
| DTM03 | 337 | **Time** | X | TM | 4/8 | Used |
| | | **Description:** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) | | | | |
| DTM04 | 623 | **Time Code** | O | ID | 2/2 | Used |
| | | **Description:** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow<br>**All valid standard codes are used.** | | | | |

## 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 HL

| 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 |
| 080 | MEA | Measurements | O | 40 | | Used |
| 110 | TD1 | Carrier Details (Quantity and Weight) | O | 20 | | Used |
| 120 | TD5 | Carrier Details (Routing Sequence/Transit Time) | O | 12 | | Used |
| 130 | TD3 | Carrier Details (Equipment) | O | 12 | | Used |
| 150 | REF | Reference Identification | O | >1 | | Used |
| 220 | | Loop N1 | O | | 200 | Used |

# 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 | | | | |
| 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 Name**<br>S Shipment | | | | |
| 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 | | | | |

## 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.

# MEA Measurements

| Pos: 080 | Max: 40 |
|---|---|
| Detail - Optional | |
| Loop: HL | Elements: 4 |

**User Option (Usage):** Used

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

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| MEA01 | 737 | **Measurement Reference ID Code** | O | ID | 2/2 | Used |
| | | **Description:** Code identifying the broad category to which a measurement applies | | | | |
| | | **Code Name**<br>PD Physical Dimensions | | | | |
| MEA02 | 738 | **Measurement Qualifier** | O | ID | 1/3 | Used |
| | | **Description:** Code identifying a specific product or process characteristic to which a measurement applies | | | | |
| | | **Code Name**<br>G Gross Weight<br>N Actual Net Weight | | | | |
| MEA03 | 739 | **Measurement Value** | X | R | 1/20 | Used |
| | | **Description:** The value of the measurement | | | | |
| MEA04 | C001 | **Composite Unit of Measure** | X | Comp | | Used |
| | | **Description:** To identify a composite unit of measure(See Figures Appendix for examples of use) | | | | |
| | 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 Name**<br>KG Kilogram<br>LB Pound | | | | |

## Syntax Rules:

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

## Semantics:

1. MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

## Comments:

1. When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a

positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

# TD1 Carrier Details (Quantity and Weight)

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

**User Option (Usage):** Used

**Purpose:** To specify the transportation details relative to commodity, weight, and quantity

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| TD101 | 103 | **Packaging Code** | O | AN | 3/5 | Used |
| | | **Description:** Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; if the Data Element is used, then Part 1 is always required | | | | |
| | | **Code Name**<br>BDL Bundle<br>CNT Container<br>PLT Pallet | | | | |
| | | **Code Name**<br>52 Iron or Steel<br>71 Not Otherwise Specified | | | | |
| TD102 | 80 | **Lading Quantity** | X | N0 | 1/7 | Used |
| | | **Description:** Number of units (pieces) of the lading commodity | | | | |

## Syntax Rules:

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

# TD5 Carrier Details (Routing Sequence/Transit Time)

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

**User Option (Usage):** Used

**Purpose:** To specify the carrier and sequence of routing and provide transit time information

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| TD501 | 133 | **Routing Sequence Code** | O | ID | 1/2 | Used |
| | | **Description:** Code describing the relationship of a carrier to a specific shipment movement | | | | |
| | | **Code Name**<br>B Origin/Delivery Carrier (Any Mode) | | | | |
| 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 Name**<br>2 Standard Carrier Alpha Code (SCAC) | | | | |
| TD503 | 67 | **Identification Code** | X | AN | 2/80 | Used |
| | | **Description:** Code identifying a party or other code | | | | |
| TD504 | 91 | **Transportation Method/Type Code** | X | ID | 1/2 | Used |
| | | **Description:** Code specifying the method or type of transportation for the shipment | | | | |
| | | **Code Name**<br>C Consolidation<br>E Expedited Truck<br>M Motor (Common Carrier)<br>P Private Carrier<br>R Rail<br>S Ocean<br>W Inland Waterway<br>AC Air Charter<br>AE Air Express<br>LT Less Than Trailer Load (LTL)<br>MP Motor (Package Carrier)<br>RR Roadrailer | | | | |
| TD505 | 387 | **Routing** | X | AN | 1/35 | Used |
| | | **Description:** Free-form description of the routing or requested routing for shipment, or the originating carrier's identity | | | | |
| TD506 | 368 | **Shipment/Order Status Code** | X | ID | 2/2 | Used |
| | | **Description:** Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction | | | | |
| TD507 | 309 | **Location Qualifier** | O | ID | 1/2 | Used |

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| | | **Description:** Code identifying type of location<br><br>**Code** **Name**<br>OR Origin (Shipping Point)<br>PP Pool Point | | | | |
| TD508 | 310 | **Location Identifier** | X | AN | 1/30 | Used |
| | | **Description:** Code which identifies a specific location | | | | |

## 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.

# TD3 Carrier Details (Equipment)

| Pos: 130 | Max: 12 |
|---|---|
| Detail - Optional | |
| Loop: HL | Elements: 3 |

**User Option (Usage):** Used

**Purpose:** To specify transportation details relating to the equipment used by the carrier

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| TD301 | 40 | **Equipment Description Code** | X | ID | 2/2 | Used |
| | | **Description:** Code identifying type of equipment used for shipment | | | | |
| | | **Code Name**<br>AP Aircraft<br>RR Rail Car<br>TL Trailer (not otherwise specified)<br>VE Vessel, Ocean<br>VL Vessel, Lake | | | | |
| TD302 | 206 | **Equipment Initial** | O | AN | 1/4 | Used |
| | | **Description:** Prefix or alphabetic part of an equipment unit's identifying number | | | | |
| TD303 | 207 | **Equipment Number** | X | AN | 1/10 | Used |
| | | **Description:** Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred) | | | | |

## Syntax Rules:

1. E0110 - Only one of TD301 or TD310 may be present.
2. C0203 - If TD302 is present, then TD303 is required.
3. C0405 - If TD304 is present, then TD305 is required.
4. P0506 - If either TD305 or TD306 is present, then the other is required.

# 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 Name**<br>AW Air Waybill Number<br>BM Bill of Lading Number<br>CN Carrier's Reference Number (PRO/Invoice)<br>MB Master Bill of Lading<br>PK Packing List Number | | | | |
| 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.

# Loop N1

| Pos: 220 | Repeat: 200 |
|---|---|
| Optional | |
| Loop: N1 | Elements: N/A |

**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 | | Used |
| 230 | N2 | Additional Name Information | O | 2 | | Used |
| 240 | N3 | Address Information | O | 2 | | Used |
| 250 | N4 | Geographic Location | O | 1 | | Used |

# N1 Name

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

**User Option (Usage):** Used

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

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| N101 | 98 | **Entity Identifier Code** | M | ID | 2/3 | Must use |
| | | **Description:** Code identifying an organizational entity, a physical location, property or an individual | | | | |
| | | **Code Name**<br>MI Planning Schedule/Material Release Issuer<br>SF Ship From<br>ST Ship To<br>SU Supplier/Manufacturer | | | | |
| N102 | 93 | **Name** | X | AN | 1/60 | Used |
| | | **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) | | | | |
| | | **Code Name**<br>1 D-U-N-S Number, Dun & Bradstreet<br>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: 230 | Max: 2 |
|---|---|
| Detail - Optional | |
| Loop: N1 | Elements: 2 |

**User Option (Usage):** Used

**Purpose:** To specify additional names or those longer than 35 characters in length

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| 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 Address Information

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

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

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| N301 | 166 | **Address Information** | M | AN | 1/55 | Must use |
| | | **Description:** Address information | | | | |
| N302 | 166 | **Address Information** | O | AN | 1/55 | Used |
| | | **Description:** Address information | | | | |

# N4 Geographic Location

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

**User Option (Usage):** Used

**Purpose:** To specify the geographic place of the named party

## Element Summary:

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

## Syntax Rules:

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

## Comments:

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

# Loop HL

| 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 | | Used |
| 030 | SN1 | Item Detail (Shipment) | O | 1 | | Used |

# 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 | | | | |
| 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 Name**<br>O Order | | | | |
| 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<br>**All valid standard codes are used.** | | | | |

## 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: 11 |

**User Option (Usage):** Used

**Purpose:** To specify basic item identification data

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| LIN01 | 350 | **Assigned Identification** | O | AN | 1/20 | Used |
| | | **Description:** Alphanumeric characters assigned for differentiation within a transaction set | | | | |
| 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) | | | | |
| | | **Code Name**<br>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) | | | | |
| | | **Code Name**<br>PO Purchase Order 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) | | | | |
| | | **Code Name**<br>A3 Locally Assigned Control Number | | | | |
| LIN07 | 234 | **Product/Service ID** | X | AN | 1/48 | Used |
| | | **Description:** Identifying number for a product or service | | | | |
| LIN08 | 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 Name**<br>EC Engineering Change Level | | | | |
| LIN09 | 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 |
|---|---|---|---|---|---|---|
| LIN10 | 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 Name**<br>RC Returnable Container Number | | | | |
| LIN11 | 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: 030 | Max: 1 |
|---|---|
| Detail - Optional | |
| Loop: HL | Elements: 4 |

**User Option (Usage):** Used

**Purpose:** To specify line-item detail relative to shipment

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| SN101 | 350 | **Assigned Identification** | O | AN | 1/20 | Used |
| | | **Description:** Alphanumeric characters assigned for differentiation within a transaction set | | | | |
| 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 | | | | |
| SN104 | 646 | **Quantity Shipped to Date** | O | R | 1/15 | Used |
| | | **Description:** Number of units shipped to date | | | | |

## 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.

# Loop HL

| 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 |
| 150 | REF | Reference Identification | O | >1 | | Used |
| 170 | | Loop CLD | O | | 200 | Used |

# 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 | | | | |
| 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 Name**<br>I Item | | | | |
| 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<br>**All valid standard codes are used.** | | | | |

## 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.

# 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 Name**<br>DK Dock Number<br>HC Heat Code<br>LF Assembly Line Feed Location<br>LT Lot Number<br>RF Export Reference Number | | | | |
| 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.

# Loop CLD

**Pos: 170** **Repeat: 200**
**Optional**
**Loop: CLD** **Elements: N/A**

**User Option (Usage):** Used
**Purpose:** To specify the number of material loads shipped

## Loop Summary:

| Pos | Id | Segment Name | Req | Max Use | Repeat | Usage |
|---|---|---|---|---|---|---|
| 170 | CLD | Load Detail | O | 1 | | Used |
| 180 | REF | Reference Identification | O | 200 | | Used |

# CLD Load Detail

| Pos: 170 | Max: 1 |
|---|---|
| Detail - Optional | |
| Loop: CLD | Elements: 5 |

**User Option (Usage):** Used

**Purpose:** To specify the number of material loads shipped

## Element Summary:

| Ref | Id | Element Name | Req | Type | Min/Max | Usage |
|---|---|---|---|---|---|---|
| CLD01 | 622 | **Number of Loads** | M | N0 | 1/5 | Must use |
| | | **Description:** Number of customer-defined loads shipped by the supplier | | | | |
| CLD02 | 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 | | | | |
| CLD03 | 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 | | | | |
| CLD04 | 357 | **Size** | X | R | 1/8 | Used |
| | | **Description:** Size of supplier units in pack | | | | |
| CLD05 | 355 | **Unit or Basis for Measurement Code** | O | 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 | Name |
|---|---|
| KG | Kilogram |
| LB | Pound |

## Syntax Rules:

1. C0504 - If CLD05 is present, then CLD04 is required.

## Semantics:

1. CLD05 is used to dimension the value given in CLD04.

## Comments:

1. The CLD data segment may be used to provide information to aid in the preparation of move tags and/or bar coded labels.

# REF Reference Identification

| Pos: 180 | Max: 200 |
|---|---|
| Detail - Optional | |
| Loop: CLD | Elements: 3 |

**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 Name**<br>LS Bar-Coded Serial Number<br>RS Returnable Container Serial Number | | | | |
| 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 | | | | |
| REF03 | 352 | **Description** | X | AN | 1/80 | Used |
| | | **Description:** A free-form description to clarify the related data elements and their content | | | | |

## 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: 2 |

**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 | | | | |
| CTT02 | 347 | **Hash Total** | O | R | 1/10 | Used |
| | | **Description:** Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. Example: -.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. --------- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field. | | | | |

## 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 | | | | |
| 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.

# Eaton Corporation
# EDI Advance Ship Notice (856) sample 1
# (Automotive / Truck)

ST*856*121831

BSN*00*1027084356468*20020719*0912

Original shipment ID # **1027084356468**, dated **7/19/02** at **09:12**

DTM*011*20020719*0912*ET

Shipment sent **7/19/02** at **09:12**, **eastern time**.

DTM*017*20020718

Estimated arrival **7/18/2002**

HL*1**S

MEA*PD*G*1837*LB

**Gross** shipment weight is **1837** pounds.

MEA*PD*N*1777*LB

**Net** shipment weight is **1777** pounds.

TD1*PLT71*2

**Two pallets** were shipped

TD5*B*2*YFSY*LT*YELLOW FREIGHT

**Yellow Freight** was the carrier and it was not a full truckload

TD3*TL**534

Trailer number **534**

REF*BM*1304933

Bill of lading **1304933**

REF*CN*550016965

Carrier’s PRO number **550016965**

REF*PK*1069608

Packing list **1069608**

N1*MI**1*074499419

Material issuer **074499419**

N1*SF**1*007273865

Material shipped from **007273865**

N1*ST**1*074499419

Material shipped to **074499419**

N1*SU**1*007273865

Supplier duns is **007273865**

HL*2**O

LIN*1*BP*17237*A3*22-1*PO*6574

Eaton part is **17237** on Purchase order **6574**, line **1**, release **22**, shipment **1**

SN1*1*20*PC

**20** pieces shipped.

HL*3*2*I

CLD*2*10*CTN71*50*LB

**2 cartons** containing **10** pieces weighing **50 pounds.**

REF*SE*S300034

Bar code serial number **S300034.**

CTT*1
SE*25*121831

# Eaton Corporation
# EDI Advance Ship Notice (856) sample 2 (Electrical)

ST*856*121831

BSN*00*1027084356468*20020719*0912

Original shipment ID # **1027084356468**, dated **7/19/02** at **09:12**

DTM*011*20020719*0912*ET

Shipment sent **7/19/02** at **09:12**, **eastern time**.

DTM*017*20020718

Estimated arrival **7/18/2002**

HL*1**S

TD5*B*2*YFSY*LT*YELLOW FREIGHT

**Yellow Freight** was the carrier and it was not a full truckload

TD3*TL**534

Trailer number **534**

REF*CN*550016965

Carrier's PRO number **550016965**

N1*ST**92*1

Material shipped to warehouse 1

N1*SU*ABC Tooling

Supplier is ABC Tooling

HL*2**O

LIN*1*BP*17237*PO*6574

Part buyer put on purchase order **6574**, line **1** is **17237**

SN1*1*20*PC

**20** pieces shipped.

CLD*2*10*CTN71

**2 cartons** containing **10** pieces each**.**

REF*RS*S300034

Container number is **S300034.**

CTT*1
SE*24*121831