EDI Specifications

X12 4010 856

Advanced Shipping Notification

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856

Ship Notice/Manifest

Functional Group=SH

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
	ISA	Interchange Control Header	M	1			Must use
	GS	Functional Group Header	M	1			Must use
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	1			Must use
040	DTM	Date/Time Reference	O	1			Recommended

Detail:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
LOOP ID - HL					**200000**		
010	HL	Hierarchical Level - Shipment Level	M	1			Must use
080	MEA	Measurements	O	1			Must use
110	TD1	Carrier Details (Quantity and Weight)	O	1			Must use
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	1			Must use
150	REF	Reference Identification	O	1			Must use
210	FOB	F.O.B. Related Instructions	O	1			Must use
LOOP ID - N1					**200**		
220	N1	Name	O	1			Must use
LOOP ID - N1					**200**		
220	N1	Name	O	1			Must use
LOOP ID - HL					**200000**		
010	HL	Hierarchical Level - Item Level	M	1			Must use
020	LIN	Item Identification	O	1			Must use
030	SN1	Item Detail (Shipment)	O	1			Must use
050	PRF	Purchase Order Reference	O	1			Must use
070	PID	Product/Item Description	O	1			Used
110	TD1	Carrier Details (Quantity and Weight)	O	1			Optional *See Note
150	REF	Reference Identification	O	1			Must use

Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
010	CTT	Transaction Totals	M	1		N3/010	Used
020	SE	Transaction Set Trailer	M	1			Must use
	GE	Functional Group Trailer	M	1			Must use
	IEA	Interchange Control Trailer	M	1			Must use

ISA   Interchange Control Header

Pos:	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 16

User Option (Usage): Must use

To start and identify an interchange of zero or more functional groups and interchange-related control segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ISA01	I01	**Authorization Information Qualifier** **Description:** Code to identify the type of information in the Authorization Information	M	ID	2/2	Must use

Code	Name
00	No Authorization Information Present (No Meaningful Information in I02)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ISA02	I02	**Authorization Information** **Description:** Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)	M	AN	10/10	Must use
ISA03	I03	**Security Information Qualifier** **Description:** Code to identify the type of information in the Security Information	M	ID	2/2	Must use

Code	Name
00	No Security Information Present (No Meaningful Information in I04)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ISA04	I04	**Security Information** **Description:** This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)	M	AN	10/10	Must use
ISA05	I05	**Interchange ID Qualifier** **Description:** Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified	M	ID	2/2	Must use

Code	Name
01	Duns (Dun & Bradstreet)
ZZ	Mutually Defined

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ISA06	I06	**Interchange Sender ID** **Description:** Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element. Sender DUNS.	M	AN	15/15	Must use
ISA07	I05	**Interchange ID Qualifier** **Description:** Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified	M	ID	2/2	Must use

Code	Name
01	Duns (Dun & Bradstreet)

ISA08	I07	**Interchange Receiver ID**	M	AN	15/15	Must use
		Description: Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them. HFI DUNS = 004293478				
ISA09	I08	**Interchange Date**	M	DT	6/6	Must use
		Description: Date of the interchange				
ISA10	I09	**Interchange Time**	M	TM	4/4	Must use
		Description: Time of the interchange				
ISA11	I10	**Interchange Control Standards Identifier**	M	ID	1/1	Must use
		Description: Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer **All valid standard codes are used.**				
ISA12	I11	**Interchange Control Version Number**	M	ID	5/5	Must use
		Description: Code specifying the version number of the interchange control segments				

Code	Name
00401	Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997

ISA13	I12	**Interchange Control Number**	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				
ISA14	I13	**Acknowledgment Requested**	M	ID	1/1	Must use
		Description: Code sent by the sender to request an interchange acknowledgment (TA1) **All valid standard codes are used.**				
ISA15	I14	**Usage Indicator**	M	ID	1/1	Must use
		Description: Code to indicate whether data enclosed by this interchange envelope is test, production or information				

Code	Name
P	Production Data
T	Test Data

ISA16	I15	**Component Element Separator**	M	AN	1/1	Must use
		Description: Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator. Use "*".				

GS Functional Group Header

Pos:	**Max: 1**
Heading - Mandatory	
Loop: N/A	**Elements: 8**

User Option (Usage): Must use

To indicate the beginning of a functional group and to provide control information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
GS01	479	**Functional Identifier Code** **Description:** Code identifying a group of application related transaction sets	M	ID	2/2	Must use

Code	Name
SH	Ship Notice/Manifest (856)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
GS02	142	**Application Sender's Code** **Description:** Code identifying party sending transmission; codes agreed to by trading partners. Use Sender DUNS.	M	AN	2/15	Must use
GS03	124	**Application Receiver's Code** **Description:** Code identifying party receiving transmission; codes agreed to by trading partners. HFI DUNS = 004293478	M	AN	2/15	Must use
GS04	373	**Date** **Description:** Date expressed as CCYYMMDD	M	DT	8/8	Must use
GS05	337	**Time** **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)	M	TM	4/8	Must use
GS06	28	**Group Control Number** **Description:** Assigned number originated and maintained by the sender	M	N0	1/9	Must use
GS07	455	**Responsible Agency Code** **Description:** Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480	M	ID	1/2	Must use

Code	Name
X	Accredited Standards Committee X12

Ref	Id	Element Name	Req	Type	Min/Max	Usage
GS08	480	**Version / Release / Industry Identifier Code** **Description:** Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed	M	AN	1/12	Must use

Code	Name
004010	Draft Standards Approved for Publication by ASC X12 Procedures Review Board through

October 1997

Semantics:

1. GS04 is the group date.
2. GS05 is the group time.
3. The data interchange control number GS06 in this header must be identical to the same data element in the associated functional group trailer, GE02.

Comments:

1. A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.

ST   Transaction Set Header

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

User Option (Usage): Must use

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** **Description:** Code uniquely identifying a Transaction Set	M	ID	3/3	Must use

Code	Name
856	Ship Notice/Manifest

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ST02	329	**Transaction Set Control Number** **Description:** 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	Must use

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

<div>

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

</div>

User Option (Usage): Must use

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** **Description:** Code identifying purpose of transaction set	M	ID	2/2	Must use

Code	Name
00	Original
05	Replace

Ref	Id	Element Name	Req	Type	Min/Max	Usage
BSN02	396	**Shipment Identification** **Description:** A unique control number assigned by the original shipper to identify a specific shipment. This number should not be repeated within a one year timeframe. Use Bill of Lading number.	M	AN	2/15	Must use
BSN03	373	**Date** **Description:** Date expressed as CCYYMMDD	M	DT	8/8	Must use
BSN04	337	**Time** **Description:** Time expressed in 24-hour clock time as follows: HHMM, where H = hours (00-23), M = minutes (00-59)	M	TM	4/4	Must use

Semantics:

1. BSN03 is the date the shipment transaction set is created.
2. BSN04 is the time the shipment transaction set is created.

DTM Date/Time Reference

<table>
<tr><td>Pos: 040</td><td>Max: 1</td></tr>
<tr><td colspan="2">Heading - Optional</td></tr>
<tr><td>Loop: N/A</td><td>Elements: 3</td></tr>
</table>

User Option (Usage): Must use

To specify pertinent dates and times

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier** **Description:** Code specifying type of both date and time	M	ID	3/3	Must use

Code	Name
011	Shipped

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM02	373	**Date** **Description:** Date expressed as CCYYMMDD	X	DT	8/8	Must use
DTM03	337	**Time** **Description:** Time expressed in 24-hour clock time as follows: HHMM, where H = hours (00-23), M = minutes (00-59)	X	TM	4/4	Must use
DTM04	623	**Time** **Code:** Code specifying 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.	O	ID	2/2	Optional

DTM Date/Time Reference

Pos: 040	Max: 1
Heading - Optional	
Loop: N/A	Elements: 3

User Option (Usage): Recommended

To specify pertinent dates and times

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier** **Description:** Code specifying type of date or time, or both date and time	M	ID	3/3	Must use

Code	Name
017	Estimated Delivery

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM02	373	**Date** **Description:** Date expressed as CCYYMMDD	X	DT	8/8	Used
DTM03	337	**Time** **Description:** Time expressed in 24-hour clock time as follows: HHMM, where H = hours (00-23), M = minutes (00-59)	X	TM	4/8	Used

Syntax:

1. R020305 - At least one of DTM02,DTM03,DTM05 is required

Loop HL

Pos: 010	**Repeat: 200000**
Mandatory	
Loop: HL	**Elements: N/A**

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

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
010	HL	Hierarchical Level - Shipment Level	M	1		Must use
080	MEA	Measurements	O	1		Must use
110	TD1	Carrier Details (Quantity and Weight)	O	1		Must use
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	1		Must use
150	REF	Reference Identification	O	1		Must use
210	FOB	F.O.B. Related Instructions	O	1		Must use
220		Loop N1	O		200	Must use
220		Loop N1	O		200	Must use

HL

Hierarchical Level - Shipment Level

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

User Option (Usage): Must use

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** **Description:** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	**Hierarchical Parent ID Number** **Description:** Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	**Hierarchical Level Code** **Description:** Code defining the characteristic of a level in a hierarchical structure	M	ID	1/2	Must use

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.

MEA   **Measurements**

<table>
<tr><td>Pos: 080</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Optional</td></tr>
<tr><td>Loop: HL</td><td>Elements: 4</td></tr>
</table>

User Option (Usage): Must use

To specify physical measurements or counts, including dimensions, tolerances, variances, and weights.

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA01	737	**Measurement Reference ID Code** **Description:** Code identifying the broad category to which a measurement applies	O	ID	2/2	Must use

		Code	**Name**			
		PD	Physical Dimensions			

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA02	738	**Measurement Qualifier** **Description:** Code identifying a specific product or process characteristic to which a measurement applies	O	ID	1/3	Must use

		Code	**Name**			
		G	Gross Weight			

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MEA03	739	**Measurement Value** **Description:** The value of the measurement	X	R0	1/20	Must use
MEA04	C001	**Composite Unit of Measure** **Description:** To identify a composite unit of measure	X	Comp		Must use
	355	**Unit or Basis for Measurement Code** **Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken.	M	ID	2/2	Must use

		Code	**Name**			
		KG	Kilogram			
		LB	Pound			

Semantics:

1. MEA04 defines the unit of measure for MEA03.

TD1 Carrier Details (Quantity and Weight)

Pos: 110	**Max: 1**
Detail - Optional	
Loop: HL	**Elements: 2**

User Option (Usage): Must use

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** **Description:** Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; is not used	O	AN	3/3	Must use

Code	Name
BOX	Box
ROL	Roll
SKD	Skid
TBN	Tote Bin

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD102	80	**Lading Quantity** **Description:** Number of units (pieces) of the lading commodity	X	N0	1/7	Must use

TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 120 **Max: 1**
Detail - Optional
Loop: HL **Elements: 4**

User Option (Usage): Must use

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** **Description:** Code describing the relationship of a carrier to a specific shipment movement	O	ID	1/2	Used

Code	Name
B	Origin/Delivery Carrier (Any Mode)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD502	66	**Identification Code Qualifier** **Description:** Code designating the system/method of code structure used for Identification Code (67)	X	ID	1/2	Used

Code	Name
2	Standard Carrier Alpha Code (SCAC)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD503	67	**Identification Code** **Description:** Code identifying a party or other code	X	AN	2/10	Must use
TD504	91	**Transportation Method/Type Code** **Description:** Code specifying the method or type of transportation for the shipment	X	ID	1/2	Must use

Code	Name
A	Air
H	Customer Pickup
M	Motor (Common Carrier)
U	Private Parcel Service
ZZ	Mutually defined

REF   Reference Identification

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

User Option (Usage): Must use

To specify identifying information

Element Summary:

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

Code	Name
BM	Bill of Lading Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification** **Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X	AN	1/5	Must use

FOB   F.O.B. Related Instructions

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

User Option (Usage): Must use

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	Name
CC	Collect
PP	Prepaid (by Seller)

Semantics:

1. FOB01 indicates which party will pay the carrier.

Loop N1

<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>

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

N1   Name

<table>
<tr><td>Pos: 220</td><td>Max: 1</td></tr>
<tr><td colspan="2" align="center">Detail - Optional</td></tr>
<tr><td>Loop: N1</td><td>Elements: 4</td></tr>
</table>

User Option (Usage): Must use

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** **Description:** Code identifying an organizational entity, a physical location, property or an individual	M	ID	2/3	Must use

Code	Name
SF	Ship From

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N102	93	**Name** **Description:** Free-form name	X	AN	1/60	Used
N103	66	**Identification Code Qualifier** **Description:** Code designating the system/method of code structure used for Identification Code (67)	X	ID	1/2	Must use

Code	Name
1	D-U-N-S Number, Dun & Bradstreet

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N104	67	**Identification Code** **Description:** Code identifying a party or other code	X	AN	9/9	Must use

Loop N1

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

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

N1   Name

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

User Option (Usage): Must use

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** **Description:** Code identifying an organizational entity, a physical location, property or an individual	M	ID	2/3	Must use

Code	Name
ST	Ship To

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N102	93	**Name** **Description:** Free-form name	X	AN	1/60	Used
N103	66	**Identification Code Qualifier** **Description:** Code designating the system/method of code structure used for Identification Code (67)	X	ID	1/2	Must use

Code	Name
92	Assigned by Buyer or Buyer's Agent

Ref	Id	Element Name	Req	Type	Min/Max	Usage
N104	67	**Identification Code** **Description:** 01 - McGaw 02 - Green Pointe 04 - AIT (Alabama) 08 – John Glenn Warehouse 20 - Obregon 22 - Monclova 80 - Consigned Inventory (Laminating Facility)	X	AN	2/2	Must use

Loop HL

Pos: 010	**Repeat: 200000**
	Mandatory
Loop: HL	**Elements: N/A**

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 - Item Level	M	1		Must use
020	LIN	Item Identification	O	1		Must use
030	SN1	Item Detail (Shipment)	O	1		Must use
050	PRF	Purchase Order Reference	O	1		Must use
070	PID	Product/Item Description	O	1		Used
150	REF	Reference Identification	O	1		Must use

HL

Hierarchical Level - Item Level

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

User Option (Usage): Must use

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** **Description:** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	**Hierarchical Parent ID Number** **Description:** Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	**Hierarchical Level Code** **Description:** Code defining the characteristic of a level in a hierarchical structure	M	ID	1/2	Must use

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.

LIN   Item Identification

<table>
<tr><td>Pos: 020</td><td>Max: 1</td></tr>
<tr><td colspan="2">Detail - Optional</td></tr>
<tr><td>Loop: HL</td><td>Elements: 3</td></tr>
</table>

User Option (Usage): Must use

To specify basic item identification data

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN01	350	**Assigned Identification** **Description:** Alphanumeric characters assigned for differentiation within a transaction set. Currently not being used by HFI.	O	AN	1/20	Not used
LIN02	235	**Product/Service ID Qualifier** **Description:** Code identifying the type/source of the descriptive number used in Product/Service ID (234)	M	ID	2/2	Must use

Code	Name
BP	Buyer's Part Number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN03	234	**Product/Service ID** **Description:** Identifying number for a product or service	M	AN	6/8	Must use

SN1 Item Detail (Shipment)

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

User Option (Usage): Must use

To specify line-item detail relative to shipment

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN101	350	**Assigned Identification** **Description:** Alphanumeric characters assigned for differentiation within a transaction set. Currently not being used by HFI.	O	AN	1/20	Not used
SN102	382	**Number of Units Shipped** **Description:** Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set (Max 2 decimals if established with accounting.)	M	R0	1/10	Must use
SN103	355	**Unit or Basis for Measurement Code** **Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken. Select one of these codes:	M	ID	2/2	Must use

Code	Name
EA	Each
GA	Gallon
KG	Kilogram
LB	Pound
LT	Liter
MR	Meter
YD	Yard

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN104	646	**Quantity Shipped to Date** **Description:** Number of units shipped to date (Accumulative quantity)	O	R0	1/15	Must use

Comments:

1. Suppliers may only send decimals if agreed by Accounting, max R2.
2. SN103 defines the unit of measurement for both SN102 and SN104.
3. Paperwork, Labels, Invoices and edi must all match.

PRF	**Purchase Order Reference**	Pos: 050 Max: 1
		Detail - Optional
		Loop: HL Elements: 1

User Option (Usage): Must use

To provide reference to a specific purchase order

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PRF01	324	**Purchase Order Number** **Description:** Identifying number for Purchase Order assigned by the orderer/purchaser. Revision 6: PRF01 will only hold the 5 digit PO number.	M	AN	5/5	Must use
PRF02	328	**Release Number** **Description:** Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction. Revision 6: PRF02 added to hold the 2 digit release number. Numbers should range from 01-99	M	AN	2/2	Must use

Note: All POs issued must have an electronic ASN sent. This includes mass production, spot buys, samples, etc.…

PID   Product/Item Description

Pos: 070	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): *See Note

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** **Description:** Code indicating the format of a description	M	ID	1/1	Must use

Code	Name
F	Free-form

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PID05	352	**Description** **Description:** A free-form description to clarify the related data elements and their content.	X	AN	1/30	*See Note

> ***Textile Mills**: Use the PID05 for the style number. For example, TR276BORGNH154L. This will be a required field for the mills.

Syntax:
1. R0405 - At least one of PID04,PID05 is required

TD1   Carrier Details (Quantity and Weight)

Pos: 110	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Optional * See Note

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** **Description:** Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; is not used	O	AN	3/3	Must use

Code	Name
ROL	Roll

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD102	80	**Lading Quantity** **Description:** Number of units (pieces) of the lading commodity	X	N0	1/7	Must use

*Note: This segment is mandatory only for suppliers with rolled material. This number should reflect the total number of rolls for each part.

REF Reference Identification

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

User Option (Usage): Must use
To specify identifying information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier** **Description:** Code qualifying the Reference Identification (Invoice number preferred.)	M	ID	2/3	Must use

Code	Name
SO	Shipper's Order (Invoice Number)

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification** **Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X	AN	1/15	Must use

CLD Roll Identification

	Max: 200
Detail – Optional*	
Loop: HL	

User Option (Usage): Required for some suppliers only if notified.

To specify identifying information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
CLD01	0622	**Roll Number Identification**	M	ID	7/10	Must use
CLD02	0382	**Net Meters**	M	AN	1/3	Must use
CLD03	0103	**Dyelot Number**	M	AN	1/10	Must use

REF Reference Identification

Pos: 150	**Max: 1**
Detail – Optional*	
Loop: HL	**Elements: 2**

User Option (Usage): Required for some suppliers only if notified.

To specify identifying information

Element Summary:

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

Code	Name
LS	Bar code serial number

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF02	127	**Reference Identification** Description: Roll ID	X	AN	1/15	Must use

CTT Transaction Totals

<div style="border:1px solid black;">

Pos: 010 **Max: 1**
Summary - Optional
Loop: N/A **Elements: 2**

</div>

User Option (Usage): Must Use

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** **Description:** Total number of LIN segments in the transaction set.	M	N0	1/6	Must use
CTT02	347	**Hash Total** **Description:** Sum of values of the SN102, a total of the number of units shipped in this transaction. (Max 2 decimals if established with accounting.)	O	R0	1/10	Used

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

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** **Description:** Total number of segments included in a transaction set including ST and SE segments	M	N0	1/10	Must use
SE02	329	**Transaction Set Control Number** **Description:** 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	Must use

Comments:

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

GE   Functional Group Trailer

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

User Option (Usage): Must use

To indicate the end of a functional group and to provide control information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
GE01	97	**Number of Transaction Sets Included** **Description:** Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	M	N0	1/6	Must use
GE02	28	**Group Control Number** **Description:** Assigned number originated and maintained by the sender	M	N0	1/9	Must use

Semantics:

1. The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

Comments:

1. The use of identical data interchange control numbers in the associated functional group header and trailer is designed to maximize functional group integrity. The control number is the same as that used in the corresponding header.

IEA   Interchange Control Trailer

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

User Option (Usage): Must use

To define the end of an interchange of zero or more functional groups and interchange-related control segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
IEA01	I16	**Number of Included Functional Groups** **Description:** A count of the number of functional groups included in an interchange	M	N0	1/5	Must use
IEA02	I12	**Interchange Control Number** **Description:** A control number assigned by the interchange sender	M	N0	9/9	Must use

Sample Data

ISA*00*Authorizat*00*Security I*01*Interchange Sen*01*004293478*020926*2218*U*00401*000017955*0*P*^~
GS*SH*Application Sen*Application Rec*19960515*2218*000000001*X*004010~
ST*856*0001~
BSN*00*Shipm*19960515*2218~
DTM*011*19960515*2218~
DTM*017*19960515*2330~
HL*1*0*S~
MEA*PD*G*14652*KG~
TD1*BOX*15337~
TD5*B*2*12345ABC*A~
REF*BM*12345~
FOB*CC~
N1*SF*Name*1*12345XXXX~
N1*ST*Name*92*01~
HL*2*1*I~
LIN**BP*Product/~
SN1**12540*EA*126034~
PRF*12345*01~
PID*F****Description~
TD1*ROL*8~
REF*SO*INVOICE #~
CTT*1*12540~
SE*20*0001~
GE*1*000000001~
IEA*1*000017955~

Revision Summary:

Revision 1   7/24/03

1. The BSN02 has been expanded to a max 15 character field.
2. PRF01 has been expanded to a max 10 character fields. HFI POs are 6 digits; however, the field has been expanded to accommodate additional release numbers or drawing changes.
3. Textile Mills Only: Use the PID05 for the style number. For example, TR276BORGNH154L. This will be a required field for the mills.

Revision 2   10/14/03

1. CTT is a required segment.
2. CTT02 the Hash Total is to be a sum of the SN102.

Revision 3   11/09/05
Added locations in the N104 "ST" loop.

Revision 4   4/24/06
Added the DTM04

Revision 5   9/28/06
Dyelot & Roll ID (CLD and REF Item Level)
Added the TD1 Item level - Roll count by item

Revision 6   1/31/08
N104 Addition of location 08 John Glenn Warehouse
PRF01 will only hold the 5 digit PO number.
PRF02 added to hold the 2 digit release number.
Note: All POs issued must have an electronic ASN sent. This includes mass production, spot buys, samples, etc….
Added notation to quantity fields, max 2 decimals if established with accounting.
Invoice number preferred for REF Segments within the LIN loops.
TD1 in each LIN segment is needed for all rolled goods – needed for customs