



Advanced Ship Notice Message 856

X12/V3040/856: 856 Advanced Ship notice

Author:	Seagate B2B
Publication:	
Trading Partner:	
Notes:	Outbound from Seagate to trading partner

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.

Segments:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
	ISA	Interchange Control Header	M	1			Used
	GS	Functional Group Header	M	1			Used

Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	ST	Transaction Set Header	M	1			Must use
020	BSN	Beginning Segment for Ship Notice	M	1			Must use

Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
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<u>LOOP ID - HL</u>					<u>200000</u>		
010	HL	Hierarchical Level	M	1		C2/010	Must use
<u>LOOP ID - N1</u>					<u>200</u>		
020	N1	Name	O	1			Used
<u>LOOP ID - N1</u>					<u>200</u>		
030	N1	Name	O	1			Used
<u>LOOP ID - HL</u>					<u>200000</u>		
040	HL	Hierarchical Level	M	1		C2/040	Must use
050	LIN	Item Identification	O	1			Used
060	SN1	Item Detail (Shipment)	O	1			Used
070	PRF	Purchase Order Reference	O	1			Used
<u>LOOP ID - HL</u>					<u>200000</u>		
090	HL	Hierarchical Level	M	1		C2/090	Must use
100	SN1	Item Detail (Shipment)	O	1			Used
<u>LOOP ID - HL</u>					<u>200000</u>		
110	HL	Hierarchical Level	M	1		C2/110	Must use
120	SN1	Item Detail (Shipment)	O	1			Used
130	REF	Reference Numbers	O	>1			Used

Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	CTT	Transaction Totals	O	1		N3/010	Used
020	SE	Transaction Set Trailer	M	1			Must use

Segments:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
	GE	Functional Group Trailer	M	1			Used
	IEA	Interchange Control Trailer	M	1			Used

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:

2/010 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
 2/040 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
 2/090 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
 2/110 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

ISA**Interchange Control Header**

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

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ISA01	I01	Authorization Information Qualifier Description: Code to identify the type of information in the Authorization Information.	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		00 No Authorization Information Present (No Meaningful Information in I02)				
ISA02	I02	Authorization Information Description: Information used for additional identification or authorization of the sender or the data in the interchange. The type of information is set by the Authorization Information Qualifier.	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
		<u>Code</u> <u>Name</u>				
		00 No Security Information Present (No Meaningful Information in I04)				
ISA04	I04	Security Information Description: This is used for identifying the security information about the sender or the data in the interchange. The type of information is set by the Security Information Qualifier.	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
		<u>Code</u> <u>Name</u>				
		01 Duns (Dun & Bradstreet)				
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 number in the sender ID element.	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
		<u>Code</u> <u>Name</u>				
		ZZ Mutually Defined				
ISA08	I07	Interchange Receiver ID 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.	M	AN	15/15	Must use
ISA09	I08	Interchange Date	M	DT	6/6	Must use

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>				
		Description: Date of the interchange.								
ISA10	I09	Interchange Time Description: Time of the interchange.	M	TM	4/4	Must use				
ISA11	I10	Interchange Control Standards Identifier 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.	M	ID	1/1	Must use				
ISA12	I11	Interchange Control Version Number Description: This version number covers the interchange control segments.	M	ID	5/5	Must use				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>00304</td> <td>Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1993</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	00304	Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1993				
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00304	Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1993									
ISA13	I12	Interchange Control Number Description: This number uniquely identifies the interchange data to the sender. It is assigned by the sender. Together with the sender ID it uniquely identifies the interchange data to the receiver. It is suggested that the sender, receiver, and all third parties be able to maintain an audit trail of interchanges using this number.	M	N0	9/9	Must use				
ISA14	I13	Acknowledgment Requested Description: Code sent by the sender to request an interchange acknowledgment. All valid standard codes are used.	M	ID	1/1	Must use				
ISA15	I14	Test Indicator Description: Code to indicate whether data enclosed by this interchange envelope is test or production.	M	ID	1/1	Must use				
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P	Production Data									
ISA16	I15	Subelement Separator Description: This is a field reserved for future expansion in separating data element subgroups. (In the interest of a migration to international standards, this must be different from the data element separator).	M	AN	1/1	Must use				

GS**Functional Group Header**

Pos:	Max: 1
- Mandatory	
Loop: N/A	Elements: 7

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
GS01	479	Functional Identifier Code Description: Code identifying a group of application related Transaction Sets.	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		SH Ship Notice/Manifest (856)				
GS02	142	Application Sender's Code Description: Code identifying party sending transmission. Codes agreed to by trading partners.	M	AN	2/15	Must use
GS03	124	Application Receiver's Code Description: Code identifying party receiving transmission. Codes agreed to by trading partners.	M	AN	2/15	Must use
GS04	373	Date Description: Date (YYMMDD).	M	DT	6/6	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
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
		<u>Code</u> <u>Name</u>				
		003040 Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1993				

Semantics:

- GS04 is the Group Date.
- GS05 is the Group Time.
- 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:

- 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

To indicate the start of a transaction set and to assign a control number

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ST01	143	Transaction Set Identifier Code Description: Code uniquely identifying a Transaction Set.	M	ID	3/3	Must use
		<u>Code</u> <u>Name</u>				
		856 X12.10 Ship Notice/Manifest				
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:

- 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

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
BSN01	353	Transaction Set Purpose Code Description: Code identifying purpose of transaction set.	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		00 Original				
BSN02	396	Shipment Identification Description: A unique control number assigned by the original shipper to identify a specific shipment.	M	AN	2/30	Must use
BSN03	373	Date Description: Date (YYMMDD).	M	DT	6/6	Must use
BSN04	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

Semantics:

1. BSN03 is the date the shipment transaction set is created.

Comments:

1. Sample Data:
2. BSN*00*82278352*030304*0000~

HL

Hierarchical Level

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

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	Hierarchical ID Number 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
		<u>Code</u> <u>Name</u>				
		S Shipment				
HL04	736	Hierarchical Child Code Description: Code indicating whether if there are hierarchical child data segments subordinate to the level being described.	O	ID	1/1	Used
		<u>Code</u> <u>Name</u>				
		1 Additional Subordinate HL Data Segment in This Hierarchical Structure.				

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. 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.
6. Sample Data:

N1**Name**

Pos: 020	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code Description: Code identifying an organizational entity, a physical location, or an individual	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		SF Ship From				
N102	93	Name Description: Free-form name.	C	AN	1/35	Used
N103	66	Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67).	C	ID	1/2	Used
		<u>Code</u> <u>Name</u>				
		91 Assigned by Seller or Seller's Agent				
N104	67	Identification Code Description: Code identifying a party or other code.	C	AN	2/17	Used

Syntax:

1. N102 R0203 -- At least one of N102 or N103 is required.
2. N103 P0304 -- If either N103 or N104 are present, then the others are 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. Sample Data:
3. N1*SF*SEAGATE*91*OHO~

N1

Name

Pos: 030	Max: 1
Detail - Optional	
Loop: N1	Elements: 4

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code Description: Code identifying an organizational entity, a physical location, or an individual	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		ST Ship To				
N102	93	Name Description: Free-form name.	C	AN	1/35	Used
N103	66	Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67).	C	ID	1/2	Used
		<u>Code</u> <u>Name</u>				
		92 Assigned by Buyer or Buyer's Agent				
N104	67	Identification Code Description: Code identifying a party or other code.	C	AN	2/17	Used

Syntax:

1. N102 R0203 -- At least one of N102 or N103 is required.
2. N103 P0304 -- If either N103 or N104 are present, then the others are 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. Sample Data:
3. N1*ST**92*CM123~

HL**Hierarchical Level**

Pos: 040	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 4

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>				
HL01	628	Hierarchical ID Number 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				
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I	Item									
HL04	736	Hierarchical Child Code Description: Code indicating whether if there are hierarchical child data segments subordinate to the level being described.	O	ID	1/1	Used				
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Comments:

- 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.
- 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.
- HL02 identifies the Hierarchical ID Number of the HL segment to which the current HL segment is subordinate.
- 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.
- HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
- Sample Data:

LIN**Item Identification**

Pos: 050	Max: 1
Detail - Optional	
Loop: HL	Elements: 5

To specify basic item identification data.

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
LIN01	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set.	O	AN	1/11	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
		<u>Code</u> <u>Name</u> MN Model Number				
LIN03	234	Product/Service ID Description: Identifying number for a product or service.	M	AN	1/30	Must use
LIN04	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234).	O	ID	2/2	Used
		<u>Code</u> <u>Name</u> VP Vendor's (Seller's) Part Number				
LIN05	234	Product/Service ID Description: Identifying number for a product or service.	C	AN	1/30	Used

Syntax:

C0405 -- If LIN04 is present, then LIN05 is required

Semantics:

- LIN01 is the line item identification

Comments:

- See the Data Dictionary for a complete list of ID's.
- LIN02 through LIN31 provide for fifteen (15) different product/service ID's for each item. For Example: Case, Color, Drawing No., UPC No., ISBN No., Model No., SKU.
- Sample Data:

SN1**Item Detail (Shipment)**

Pos: 060	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

To specify line item detail relative to shipment

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SN101	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set.	O	AN	1/11	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.	M	R	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	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		EA Each				

Semantics:

1. SN101 is the ship notice line item identification.

Comments:

1. SN103 defines the unit of measurement for both SN102 and SN104.
2. Sample Data:

PRF Purchase Order Reference

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

To provide reference to a specific purchase order

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PRF01	324	Purchase Order Number Description: Identifying number for Purchase Order assigned by the orderer/purchaser.	M	AN	1/22	Must use
PRF02	328	Release Number Description: Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction. User Note 1: <i>PO line number from distributor's original purchase order to Seagate. (This was added for COF process.)</i>	M	AN	1/30	Used

Comments:

1. Sample Data:

HL**Hierarchical Level**

Pos: 090	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 4

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

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- 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.
- HL02 identifies the Hierarchical ID Number of the HL segment to which the current HL segment is subordinate.
- 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.
- HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
- Sample Data:

SN1**Item Detail (Shipment)**

Pos: 100	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

To specify line item detail relative to shipment

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SN101	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set.	O	AN	1/11	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.	M	R	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	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		PL Pallet/Unit Load				

Semantics:

1. SN101 is the ship notice line item identification.

Comments:

1. SN103 defines the unit of measurement for both SN102 and SN104.
2. Sample Data:

HL

Hierarchical Level

Pos: 110	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 4

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>				
HL01	628	Hierarchical ID Number 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				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>Q</td> <td>Subpack</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	Q	Subpack				
<u>Code</u>	<u>Name</u>									
Q	Subpack									
HL04	736	Hierarchical Child Code Description: Code indicating whether if there are hierarchical child data segments subordinate to the level being described.	O	ID	1/1	Used				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>0</td> <td>No Subordinate HL Segment in This Hierarchical Structure.</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	0	No Subordinate HL Segment in This Hierarchical Structure.				
<u>Code</u>	<u>Name</u>									
0	No Subordinate HL Segment in This Hierarchical Structure.									

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. 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.
6. Sample Data:

SN1 Item Detail (Shipment)

Pos: 120	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

To specify line item detail relative to shipment

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SN101	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set.	O	AN	1/11	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.	M	R	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	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		CT Carton				

Semantics:

- SN101 is the ship notice line item identification.

Comments:

- SN103 defines the unit of measurement for both SN102 and SN104.
- Sample Data:

REF Reference Numbers

Pos: 130	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

To specify identifying numbers.

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Number Qualifier Description: Code qualifying the Reference Number.	M	ID	2/2	Must use
		<u>Code</u> <u>Name</u>				
		SE Serial Number				
REF02	127	Reference Number Description: Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	C	AN	1/30	Used

Syntax:

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

Comments:

- Sample Data:

CTT Transaction Totals

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

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CTT01	354	Number of Line Items	M	N0	1/6	Must use
Description: Total number of line items in the transaction set.						

Comments:

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.
2. Sample Data:

SE**Transaction Set Trailer**

Pos: 020	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SE01	96	Number of Included Segments 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:

- SE is the last segment of each transaction set.

GE**Functional Group Trailer**

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

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

Element Summary:

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

- The data interchange control number GE02 in this trailer must be identical to the same data element in the associated Functional Header GS06.

Comments:

- 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
- Mandatory	
Loop: N/A	Elements: 2

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
IEA01	I16	Number of Included Functional Groups Description: A count of the number of functional groups included in a transmission.	M	N0	1/5	Must use
IEA02	I12	Interchange Control Number Description: This number uniquely identifies the interchange data to the sender. It is assigned by the sender. Together with the sender ID it uniquely identifies the interchange data to the receiver. It is suggested that the sender, receiver, and all third parties be able to maintain an audit trail of interchanges using this number.	M	N0	9/9	Must use