856 Ship Notice/Manifest

X12/V4010/856: 856 Ship Notice/Manifest

Version: 1.5 Final

Author:
Company: **Crate and Barrel**
Notes: **Shipment-Order-Pack-Item Structure**
FINAL APPROVED
3-16-2009
Updated 4-17-2026

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	Page
	ISA	Interchange Control Header	M	1			Must use	10
	GS	Functional Group	M	1			Must use	12
010	ST	Header Transaction Set	M	1			Must use	14
020	BSN	Header Beginning Segment for Ship Notice	M	1			Must use	15
040	DTM	Date/Time Reference	M	10			Used	16

Detail:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
LOOP ID - HL					**200000**	**C2/010L**		17
010	HL	Hierarchical Level	M	1		C2/010	Must use	18
* 020	LIN	Item Identification	O	1				N/A
* 030	SN1	Item Detail (Shipment)	O	1				N/A
* 040	SLN	Subline Item Detail	O	1000				N/A
* 050	PRF	Purchase Order Reference	O	1				N/A
* 060	PO4	Item Physical Details	O	1				N/A
* 070	PID	Product/Item Description	O	200				N/A
* 080	MEA	Measurements	O	40				N/A
* 090	PWK	Paperwork	O	25				N/A
* 100	PKG	Marking, Packaging, Loading	O	25				N/A
110	TD1	Carrier Details (Quantity and Weight)	M	20			Used	19
120	TD5	Carrier Details (Routing Sequence/Transit Time)	M	12			Used	20
130	TD3	Carrier Details (Equipment)	M	12			Used	22
* 140	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
* 145	TSD	Trailer Shipment Details	O	1				N/A
150	REF	Reference Identification	M	>1			Used	23
* 151	PER	Administrative Communications Contact	O	3				N/A
*** LOOP ID - LH1**					**100**			N/A
* 152	LH1	Hazardous Identification Information	O	1				N/A

* 153	LH2	Hazardous Classification Information	O	4			N/A
* 154	LH3	Hazardous Material Shipping Name	O	12			N/A
* 155	LFH	Freeform Hazardous Material Information	O	20			N/A
* 156	LEP	EPA Required Data	O	>1			N/A
* 157	LH4	Canadian Dangerous Requirements	O	1			N/A
* 158	LHT	Transborder Hazardous Requirements	O	3			N/A
* 159	LHR	Hazardous Material Identifying Reference Numbers	O	10			N/A
* 160	PER	Administrative Communications Contact	O	5			N/A
* 161	LHE	Empty Equipment Hazardous Material Information	O	1			N/A
*** LOOP ID - CLD**					**200**		N/A
* 170	CLD	Load Detail	O	1			N/A
* 180	REF	Reference Identification	O	200			N/A
* 185	DTP	Date or Time or Period	O	1			N/A
* 190	MAN	Marks and Numbers	O	>1			N/A
200	DTM	Date/Time Reference	M	10		Used	24
210	FOB	F.O.B. Related Instructions	M	1		Used	25
* 215	PAL	Pallet Information	O	1			N/A
LOOP ID - N1					**200**		26
220	N1	Name	M	1		Used	27
* 230	N2	Additional Name Information	O	2			N/A
240	N3	Address Information	M	2		Used	29
250	N4	Geographic Location	M	1		Used	30
* 260	REF	Reference Identification	O	12			N/A
270	PER	Administrative Communications Contact	M	3		Used	31
* 280	FOB	F.O.B. Related Instructions	O	1			N/A
* 290	SDQ	Destination Quantity	O	50			N/A
* 300	ETD	Excess Transportation Detail	O	1			N/A
* 310	CUR	Currency	O	1			N/A
*** LOOP ID - SAC**					**>1**		N/A
* 320	SAC	Service, Promotion, Allowance, or Charge Information	O	1			N/A
* 325	CUR	Currency	O	1			N/A
* 330	GF	Furnished Goods and Services	O	1			N/A
* 335	YNQ	Yes/No Question	O	10			N/A
*** LOOP ID - LM**					**10**		N/A
* 340	LM	Code Source Information	O	1			N/A
* 350	LQ	Industry Code	M	100			N/A
*** LOOP ID - V1**					**>1**		N/A

* 360	V1	Vessel Identification	O	1				N/A
* 370	R4	Port or Terminal	O	>1				N/A
* 380	DTM	Date/Time Reference	O	>1				N/A
LOOP ID - HL					**200000**	**C2/010L**		33
010	HL	Hierarchical Level	M	1		C2/010	Must use	34
* 020	LIN	Item Identification	O	1				N/A
* 030	SN1	Item Detail (Shipment)	O	1				N/A
* 040	SLN	Subline Item Detail	O	1000				N/A
050	PRF	Purchase Order Reference	M	1			Used	35
* 060	PO4	Item Physical Details	O	1				N/A
* 070	PID	Product/Item Description	O	200				N/A
* 080	MEA	Measurements	O	40				N/A
* 090	PWK	Paperwork	O	25				N/A
* 100	PKG	Marking, Packaging, Loading	O	25				N/A
* 110	TD1	Carrier Details (Quantity and Weight)	O	20				N/A
* 120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12				N/A
* 130	TD3	Carrier Details (Equipment)	O	12				N/A
* 140	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
* 145	TSD	Trailer Shipment Details	O	1				N/A
150	REF	Reference Identification	M	>1			Must use	36
* 151	PER	Administrative Communications Contact	O	3				N/A
*** LOOP ID - LH1**					**100**			N/A
* 152	LH1	Hazardous Identification Information	O	1				N/A
* 153	LH2	Hazardous Classification Information	O	4				N/A
* 154	LH3	Hazardous Material Shipping Name	O	12				N/A
* 155	LFH	Freeform Hazardous Material Information	O	20				N/A
* 156	LEP	EPA Required Data	O	>1				N/A
* 157	LH4	Canadian Dangerous Requirements	O	1				N/A
* 158	LHT	Transborder Hazardous Requirements	O	3				N/A
* 159	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
* 160	PER	Administrative Communications Contact	O	5				N/A
* 161	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
*** LOOP ID - CLD**					**200**			N/A
* 170	CLD	Load Detail	O	1				N/A
* 180	REF	Reference Identification	O	200				N/A
* 185	DTP	Date or Time or Period	O	1				N/A

* 190	MAN	Marks and Numbers	O	>1				N/A
* 200	DTM	Date/Time Reference	O	10				N/A
* 210	FOB	F.O.B. Related Instructions	O	1				N/A
* 215	PAL	Pallet Information	O	1				N/A
*** LOOP ID - N1**					**200**			N/A
* 220	N1	Name	O	1				N/A
* 230	N2	Additional Name Information	O	2				N/A
* 240	N3	Address Information	O	2				N/A
* 250	N4	Geographic Location	O	1				N/A
* 260	REF	Reference Identification	O	12				N/A
* 270	PER	Administrative Communications Contact	O	3				N/A
* 280	FOB	F.O.B. Related Instructions	O	1				N/A
* 290	SDQ	Destination Quantity	O	50				N/A
* 300	ETD	Excess Transportation Detail	O	1				N/A
* 310	CUR	Currency	O	1				N/A
*** LOOP ID - SAC**					**>1**			N/A
* 320	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A
* 325	CUR	Currency	O	1				N/A
* 330	GF	Furnished Goods and Services	O	1				N/A
* 335	YNQ	Yes/No Question	O	10				N/A
*** LOOP ID - LM**					**10**			N/A
* 340	LM	Code Source Information	O	1				N/A
* 350	LQ	Industry Code	M	100				N/A
*** LOOP ID - V1**					**>1**			N/A
* 360	V1	Vessel Identification	O	1				N/A
* 370	R4	Port or Terminal	O	>1				N/A
* 380	DTM	Date/Time Reference	O	>1				N/A
LOOP ID - HL					**200000**	**C2/010L**		37
010	HL	Hierarchical Level	M	1		C2/010	Must use	38
* 020	LIN	Item Identification	O	1				N/A
* 030	SN1	Item Detail (Shipment)	O	1				N/A
* 040	SLN	Subline Item Detail	O	1000				N/A
* 050	PRF	Purchase Order Reference	O	1				N/A
* 060	PO4	Item Physical Details	O	1				N/A
* 070	PID	Product/Item Description	O	200				N/A
* 080	MEA	Measurements	O	40				N/A
* 090	PWK	Paperwork	O	25				N/A
* 100	PKG	Marking, Packaging, Loading	O	25				N/A
* 110	TD1	Carrier Details (Quantity and Weight)	O	20				N/A
* 120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12				N/A
* 130	TD3	Carrier Details (Equipment)	O	12				N/A
* 140	TD4	Carrier Details (Special	O	5				N/A

		Handling, or Hazardous Materials, or Both)						
* 145	TSD	Trailer Shipment Details	O	1				N/A
* 150	REF	Reference Identification	O	>1				N/A
* 151	PER	Administrative Communications Contact	O	3				N/A
*** LOOP ID - LH1**					**100**			N/A
* 152	LH1	Hazardous Identification Information	O	1				N/A
* 153	LH2	Hazardous Classification Information	O	4				N/A
* 154	LH3	Hazardous Material Shipping Name	O	12				N/A
* 155	LFH	Freeform Hazardous Material Information	O	20				N/A
* 156	LEP	EPA Required Data	O	>1				N/A
* 157	LH4	Canadian Dangerous Requirements	O	1				N/A
* 158	LHT	Transborder Hazardous Requirements	O	3				N/A
* 159	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
* 160	PER	Administrative Communications Contact	O	5				N/A
* 161	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
*** LOOP ID - CLD**					**200**			N/A
* 170	CLD	Load Detail	O	1				N/A
* 180	REF	Reference Identification	O	200				N/A
* 185	DTP	Date or Time or Period	O	1				N/A
190	MAN	Marks and Numbers	M	>1			Used	39
* 200	DTM	Date/Time Reference	O	10				N/A
* 210	FOB	F.O.B. Related Instructions	O	1				N/A
* 215	PAL	Pallet Information	O	1				N/A
*** LOOP ID - N1**					**200**			N/A
* 220	N1	Name	O	1				N/A
* 230	N2	Additional Name Information	O	2				N/A
* 240	N3	Address Information	O	2				N/A
* 250	N4	Geographic Location	O	1				N/A
* 260	REF	Reference Identification	O	12				N/A
* 270	PER	Administrative Communications Contact	O	3				N/A
* 280	FOB	F.O.B. Related Instructions	O	1				N/A
* 290	SDQ	Destination Quantity	O	50				N/A
* 300	ETD	Excess Transportation Detail	O	1				N/A
* 310	CUR	Currency	O	1				N/A
*** LOOP ID - SAC**					**>1**			N/A
* 320	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A

* 325	CUR	Currency	O	1				N/A
* 330	GF	Furnished Goods and Services	O	1				N/A
* 335	YNQ	Yes/No Question	O	10				N/A
*** LOOP ID - LM**					**10**			N/A
* 340	LM	Code Source Information	O	1				N/A
* 350	LQ	Industry Code	M	100				N/A
*** LOOP ID - V1**					**>1**			N/A
* 360	V1	Vessel Identification	O	1				N/A
* 370	R4	Port or Terminal	O	>1				N/A
* 380	DTM	Date/Time Reference	O	>1				N/A
LOOP ID - HL					**200000**	**C2/010L**		41
010	HL	Hierarchical Level	M	1		C2/010	Must use	42
020	LIN	Item Identification	M	1			Must use	43
030	SN1	Item Detail (Shipment)	M	1			Used	45
* 040	SLN	Subline Item Detail	O	1000				N/A
* 050	PRF	Purchase Order Reference	O	1				N/A
060	PO4	Item Physical Details	M	1			Used	46
* 070	PID	Product/Item Description	O	200				N/A
* 080	MEA	Measurements	O	40				N/A
* 090	PWK	Paperwork	O	25				N/A
* 100	PKG	Marking, Packaging, Loading	O	25				N/A
110	TD1	Carrier Details (Quantity and Weight)	M	20			Used	47
120	TD5	Carrier Details (Routing Sequence/Transit Time)	M	12			Used	49
* 130	TD3	Carrier Details (Equipment)	O	12				N/A
* 140	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5				N/A
* 145	TSD	Trailer Shipment Details	O	1				N/A
* 150	REF	Reference Identification	O	>1				N/A
* 151	PER	Administrative Communications Contact	O	3				N/A
*** LOOP ID - LH1**					**100**			N/A
* 152	LH1	Hazardous Identification Information	O	1				N/A
* 153	LH2	Hazardous Classification Information	O	4				N/A
* 154	LH3	Hazardous Material Shipping Name	O	12				N/A
* 155	LFH	Freeform Hazardous Material Information	O	20				N/A
* 156	LEP	EPA Required Data	O	>1				N/A
* 157	LH4	Canadian Dangerous Requirements	O	1				N/A
* 158	LHT	Transborder Hazardous Requirements	O	3				N/A
* 159	LHR	Hazardous Material Identifying Reference Numbers	O	10				N/A
* 160	PER	Administrative	O	5				N/A

		Communications Contact						
* 161	LHE	Empty Equipment Hazardous Material Information	O	1				N/A
*** LOOP ID - CLD**					**200**			N/A
* 170	CLD	Load Detail	O	1				N/A
* 180	REF	Reference Identification	O	200				N/A
* 185	DTP	Date or Time or Period	O	1				N/A
* 190	MAN	Marks and Numbers	O	>1				N/A
200	DTM	Date/Time Reference	M	10			Must use	50
* 210	FOB	F.O.B. Related Instructions	O	1				N/A
* 215	PAL	Pallet Information	O	1				N/A
*** LOOP ID - N1**					**200**			N/A
* 220	N1	Name	O	1				N/A
* 230	N2	Additional Name Information	O	2				N/A
* 240	N3	Address Information	O	2				N/A
* 250	N4	Geographic Location	O	1				N/A
* 260	REF	Reference Identification	O	12				N/A
* 270	PER	Administrative Communications Contact	O	3				N/A
* 280	FOB	F.O.B. Related Instructions	O	1				N/A
* 290	SDQ	Destination Quantity	O	50				N/A
* 300	ETD	Excess Transportation Detail	O	1				N/A
* 310	CUR	Currency	O	1				N/A
*** LOOP ID - SAC**					**>1**			N/A
* 320	SAC	Service, Promotion, Allowance, or Charge Information	O	1				N/A
* 325	CUR	Currency	O	1				N/A
* 330	GF	Furnished Goods and Services	O	1				N/A
* 335	YNQ	Yes/No Question	O	10				N/A
*** LOOP ID - LM**					**10**			N/A
* 340	LM	Code Source Information	O	1				N/A
* 350	LQ	Industry Code	O	100				N/A
*** LOOP ID - V1**					**>1**			N/A
* 360	V1	Vessel Identification	O	1				N/A
* 370	R4	Port or Terminal	O	>1				N/A
* 380	DTM	Date/Time Reference	O	>1				N/A

Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage	Page
010	CTT	Transaction Totals	M	1		N3/010	Used	51
020	SE	Transaction Set Trailer	M	1			Must use	52
	GE	Functional Group	M	1			Must use	53
	IEA	Trailer Interchange Control Trailer	M	1			Must use	54

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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Buyer Usage:

Outlines Shipment/Order/Pack/Item (SOPI) Structure. A separate guideline will be provided for Shipment/Order/Item/Pack (SOIP).

Change Log:

03-03-2009 v 1.5

Added element TD506 (within the TD5 loop within the HL1 segment) to contain a 'CD' if the shipment is being consolidated by someone other than the vendor.

Added N3 and N4 segments (within the N1 loop within the HL1 segment) to send additional address information for a Stuffer, Consolidator, Manufacturer and Booking Party (ZZ).

The Stuffer, code 'LG', is mandatory for all international shipments to the U.S. arriving by ocean. This is necessary to provide US Customs with an ISF (Importer Security Filing) document 24 hours prior to the goods being loaded onto an ocean vessel.

Added following codes to element N101:
MF, LG, CS, ZZ

ISA Interchange Control Header

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

User Option (Usage): Must use
Purpose: 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**	M	ID	2/2	Must use
		Description: Code to identify the type of information in the Authorization Information **All valid standard codes are used.**				
ISA02	I02	**Authorization Information**	M	AN	10/10	Must use
		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)				
ISA03	I03	**Security Information Qualifier**	M	ID	2/2	Must use
		Description: Code to identify the type of information in the Security Information **All valid standard codes are used.**				
ISA04	I04	**Security Information**	M	AN	10/10	Must use
		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)				
ISA05	I05	**Interchange ID Qualifier**	M	ID	2/2	Must use
		Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified **All valid standard codes are used.**				
ISA06	I06	**Interchange Sender ID**	M	AN	15/15	Must use
		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				
ISA07	I05	**Interchange ID Qualifier**	M	ID	2/2	Must use
		Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified				

Code	Name
12	Phone (Telephone Companies)
	Buyer Usage: *"12" is the Production ID Qualifier*
ZZ	Mutually Defined
	Buyer Usage: *"ZZ" is the Test ID Qualifier*

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 **Buyer Usage:** *8472722888 - Production ID* *8472722888T - Test ID*				
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 **All valid standard codes are used.**				
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 **All valid standard codes are used.**				
ISA16	I15	**Component Element Separator**	M		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				

Example:

ISA^00^ ^00^ ^01^123456789 ^12^8472722888 ^070602^1339^U^00401^000000310^0^P^|

GS Functional Group Header

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

User Option (Usage): Must use
Purpose: 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**	M	ID	2/2	Must use
		Description: Code identifying a group of application related transaction sets				
		Code **Name** SH Ship Notice/Manifest (856)				
GS02	142	**Application Sender's Code**	M	AN	2/15	Must use
		Description: Code identifying party sending transmission; codes agreed to by trading partners				
GS03	124	**Application Receiver's Code**	M	AN	2/15	Must use
		Description: Code identifying party receiving transmission; codes agreed to by trading partners **Buyer Usage:** *You should return the GS ID as sent in the original 850 GS02 element.* *It is possible for you to receive multiple IDs over a range of purchase orders from us. Each purchase order will belong to only one GS ID.* *Here are the possible GS IDs:* *"CRATEDOMES" - Crate and Barrel Domestic* *"CRATEDOMREP" - Crate and Barrel Domestic Rep* *"EUROMDESIG" - Crate and Barrel International* *"EUROMDESAGT" - Crate and Barrel International Agent* *"CRATECUST" - Crate and Barrel Custom* *"CB2DOMES" - CB2 Domestic* *"CB2DOMREP" - CB2 Domestic Rep* *"CB2INTL" - CB2 International* *"CB2INTLAGT" - CB2 International Agent* *"CRATECANADA" - Crate and Barrel Canada* *"CRATECANREP" - Crate and Barrel Canada Rep* *"LONODDOMES" - Land of Nod Domestic* *"LONODDOMREP" - Land of Nod Domestic Rep* *"LONODMBRK" - Land of Nod International* *"LONODMBAGT" - Land of Nod International Agent* *"LONODCUST" - Land of Nod Custom*				
GS04	373	**Date**	M	DT	8/8	Must use
		Description: Date expressed as CCYYMMDD				
GS05	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)				
GS06	28	**Group Control Number**	M	N0	1/9	Must use

Description: Assigned number originated and maintained by the sender

GS07	455	**Responsible Agency Code**	M	ID	1/2	Must use

Description: Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480
All valid standard codes are used.

GS08	480	**Version / Release / Industry Identifier Code**	M	AN	1/12	Must use

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

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.

Example:

GS^SH^123456789^CRATEDOMES^070602^1339^101^X^004010

ST Transaction Set Header

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

User Option (Usage): Must use
Purpose: To indicate the start of a transaction set and to assign a control number

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
ST01	143	**Transaction Set Identifier Code**	M	ID	3/3	Must use
		Description: Code uniquely identifying a Transaction Set **All valid standard codes are used.**				
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).

Buyer Usage:

ST^856^000001

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** 00 Original				
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) **Buyer Usage:** *Use date format HHMMSSDD*				

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.

Example:

BSN^00^4451028^20071119^09340059

DTM Date/Time Reference

Pos: 040	Max: 10
Heading - Optional	
Loop: N/A	Elements: 3

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** 011 Shipped				
DTM02	373	**Date**	X	DT	8/8	Must use
		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) **Buyer Usage:** *Required if DTM_01 = "011"*				

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.

Buyer Usage:

Buyer requires DTM Segment with DTM_01 = "011".

This is the actual date the product was shipped.

Example:

DTM^011^20071119^06005900

Loop Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
010	HL	Hierarchical Level	M	1		Must use
110	TD1	Carrier Details (Quantity and Weight)	O	20		Used
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12		Used
130	TD3	Carrier Details (Equipment)	O	12		Used
150	REF	Reference Identification	O	>1		Used
200	DTM	Date/Time Reference	O	10		Used
210	FOB	F.O.B. Related Instructions	O	1		Used
220		Loop N1	O		200	Used
010		Loop HL	M		200000	Must use

Example:

HL^1^^S
TD5^^2^ZCSU^M^CENTRAL STATES TRUCKING^CD
TD3^TL^DOLT^2398734223^^^^^^012002348703719
REF^BM^ZPUD5498754
REF^2I^Carrier Ref Nbr
REF^CN^PRO Nbr
REF^IRN^Importer Ref Ltr of Credit
REF^PK^9875
REF^TF^Transfer Number
DTM^161^20070308
FOB^DF^KL^Saratoga, NY^^^PB^Naperville, IL
N1^ST^CRATE and BARREL^92^191
N1^SF^PANS FOR THE WORLD^92^999999
PER^IC^Joe in Shipping^TE^1-999-555-1212
N1^ST^CRATE and BARREL^92^191
N1^LG^PANS FOR THE WORLD
N3^1758 Mockingbird Lane^17th Ave west Hwy
N4^Northbrook^IL^60062^US
N1^MF^PANS R US
N3^1701 18th Street^Highview Terrace
N4^Northbrook^IL^60062^US
N1^MF^Bobs Pans
N3^1855 North Lake^Hwy 15
N4^Northbrook^IL^60062^US
N1^CS^Consolidators R US
N3^2101 Oak Street
N4^Northbrook^IL^60062^US
N1^ZZ^Freight Bookers R US
N3^2101 80th Street^Industrial Park
N4^Northbrook^IL^60062^US

HL Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				

Code	Name
S	Shipment

Comments:

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

Example:

HL^1^^S

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** BAG90 Bag, Standard BAL90 Bale, Standard CRT90 Crate, Standard CTN90 Carton, Standard PLT90 Pallet, Standard TRY90 Tray, Standard WRP90 Wrapped, Standard				
TD102	80	**Lading Quantity**	X	N0	1/7	Used
		Description: Number of units (pieces) of the lading commodity **Buyer Usage:** *Total Number of shipping units (e.g. cartons or bags) for the shipment.*				

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.

Buyer Usage:

Only one TD1 segment should be sent at the Shipment level.

Example:

There are eight cartons for this ASN:
TD1^CTN90^8

--- or ---

There are 10 bags (e.g. rugs) for this ASN:
TD1^BAG90^10

TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 120 **Max: 12**
Detail - Optional
Loop: HL **Elements: 5**

User Option (Usage): Used
Purpose: To specify the carrier and sequence of routing and provide transit time information

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD502	66	**Identification Code Qualifier**	X	ID	1/2	Used
		Description: Code designating the system/method of code structure used for Identification Code (67)				
		Code **Name** 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** A Air M Motor (Common Carrier) O Containerized Ocean R Rail T Best Way (Shippers Option) U Private Parcel Service AE Air Express LT Less Than Trailer Load (LTL) RR Roadrailer **Description:** *Used for shipments that travel by roadrailer, i.e., a multimodal rail/highway trailer* ZZ Mutually defined				
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 **Buyer Usage:** *Carrier Name*				
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				
		Code **Name** CD Consolidated Freight **Buyer Usage:** *Send this code if another company is going to place your product into the final container - it is going to be consolidated with other shipments. It is very important to notify us of this condition if it is an international shipment to the U.S. being made via an ocean vessel.*				

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.

Example:

TD5^^2^ZCSU^M^CENTRAL STATES TRUCKING^CD

TD3 Carrier Details (Equipment)

Pos: 130	Max: 12
Detail - Optional	
Loop: HL	Elements: 4

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** AF Air Freight (Break Bulk) TL Trailer (not otherwise specified) VE Vessel, Ocean				
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)				
TD309	225	**Seal Number**	O	AN	2/15	Used
		Description: Unique number on seal used to close a shipment				

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.

Example:

TD3^TL^DOLT^2398734223^^^^^^012002348703719

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
2I	Tracking Number
	Buyer Usage: *Any standard or proprietary carrier reference number other than the Bill of Lading Number (use code BM) or the PRO number (use code CN).*
BM	Bill of Lading Number
	Buyer Usage: *Bill of Lading Number is required by buyer.*
CN	Carrier's Reference Number (PRO/Invoice)
TF	Transfer Number
IRN	Importer's Reference Number to Letter of Credit
	Description: *Letter of credit reference number issued by buyer; cross-references the bank's letter of credit number, once assigned*
LO	Load Number
S5	Routing Request Control 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.

Buyer Usage:

Buyer requires REF segment with REF_01 = "BM". Others are optional.

Example:

REF^BM^ZPUD7774030
REF^IRN^SVB00IS

DTM Date/Time Reference

Pos: 200	Max: 10
Detail - Optional	
Loop: HL	Elements: 2

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** 161 Loaded on Vessel **Buyer Usage:** *Date that goods are loaded at the Port of Loading or on a domestic truck.*				
DTM02	373	**Date**	X	DT	8/8	Used
		Description: Date expressed as CCYYMMDD				

Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

Example:

DTM^161^20070308

FOB F.O.B. Related Instructions

Pos: 210 **Max: 1**
Detail - Optional
Loop: HL **Elements: 5**

User Option (Usage): Used
Purpose: To specify transportation instructions relating to shipment

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
FOB01	146	**Shipment Method of Payment**	M	ID	2/2	Must use
		Description: Code identifying payment terms for transportation charges				
		Code **Name** DF Defined by Buyer and Seller				
FOB02	309	**Location Qualifier**	X	ID	1/2	Used
		Description: Code identifying type of location				
		Code **Name** KL Port of Loading				
FOB03	352	**Description**	O	AN	1/80	Used
		Description: A free-form description to clarify the related data elements and their content				
FOB06	309	**Location Qualifier**	X	ID	1/2	Used
		Description: Code identifying type of location				
		Code **Name** PB Port of Discharge **Description:** *Port where shipment is unloaded*				
FOB07	352	**Description**	O	AN	1/80	Used
		Description: A free-form description to clarify the related data elements and their content				

Syntax Rules:

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

Semantics:

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

Example:

International Shipment Example:

FOB^DF^KL^HAMBURG, GERMANY^^^PB^New Jersey, NJ

Domestic Shipment Example:

FOB^DF^KL^Saratoga, NY^^^PB^Naperville, IL

Loop Name

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
240	N3	Address Information	O	2		Used
250	N4	Geographic Location	O	1		Used
270	PER	Administrative Communications Contact	O	3		Used

Example:

N1^ST^CRATE and BARREL^92^191
N1^SF^PANS FOR THE WORLD^92^999999
PER^IC^Joe in Shipping^TE^1-999-555-1212
N1^LG^PANS FOR THE WORLD
N3^1758 Mockingbird Lane^17th Ave west Hwy
N4^Northbrook^IL^60062^US
N1^MF^PANS R US
N3^1701 18th Street^Highview Terrace
N4^Northbrook^IL^60062^US
N1^MF^Bobs Pans
N3^1855 North Lake^Hwy 15
N4^Northbrook^IL^60062^US
N1^CS^Consolidators R US
N3^2101 Oak Street
N4^Northbrook^IL^60062^US
N1^ZZ^Freight Bookers R US
N3^2101 80th Street^Industrial Park
N4^Northbrook^IL^60062^US

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**				
		CS Consolidator				
		Buyer Usage: *This is the name and address of the consolidator of your shipment.*				
		LG Location of Goods				
		Buyer Usage: *"LG" is required for all shipments coming to the United States via an Ocean Shipment (Air shipments are excluded as well as truck or rail from Canada or Mexico).* *This should include the name of who stuffed the goods into the container and where the container was loaded. This could be either your factory or another company/location.*				
		MF Manufacturer of Goods				
		Buyer Usage: *This would be the name and address of who the final manufacturer of the product is.*				
		SF Ship From				
		ST Ship To				
		ZZ Mutually Defined				
		Buyer Usage: *Used to define the name and address for a "Booking Party" - company name and address of who booked the shipment on your behalf.*				
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**				
		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				
		Buyer Usage: *When N1_01 = ST the buyer's warehouse number is sent in N1_04. This must match N1_04 from the original PO 850 where N1_01 = "ST" within the N1 loop (Pos: 310))* *When N1_01 = SF the suppliers internal code for the ship from location is sent in N1_04.*				

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.

Example:

N1^ST^CRATE and BARREL^92^191
N1^SF^PANS FOR THE WORLD^92^999999
N1^MF^PANS R US
N3^1701 18th Street^Highview Terrace
N4^Northbrook^IL^60062^US
N1^MF^Bobs Pans
N3^1855 North Lake^Hwy 15
N4^Northbrook^IL^60062^US

We only expect one entry for the ST (Ship To) and SF (Ship From).

There can be multiple addresses for the other types.

For example:

You should send all manufactures for the products being shipped. If you are sending two items and they are manufactured by two different companies then we would expect two MF entries.

The Manufacturer is the most likely party type to have multiple entries but the others are set up to handle this scenario if it is needed.

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** **Description:** Address information **Buyer Usage:** *Only the First 30 characters should be used - any characters after that will be ignored.*	M	AN	1/55	Must use
N302	166	**Address Information** **Description:** Address information **Buyer Usage:** *Only the First 30 characters should be used - any characters after that will be ignored.*	O	AN	1/55	Used

Example:

N1^MF^PANS R US
N3^1701 18th Street^Highview Terrace
N4^Northbrook^IL^60062^US
N1^MF^Bobs Pans
N3^1855 North Lake^Hwy 15
N4^Northbrook^IL^60062^US

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 **Buyer Usage:** *Only the first 35 characters should be used - any characters after 35 will be ignored.*				
N402	156	**State or Province Code**	O	ID	2/2	Used
		Description: Code (Standard State/Province) as defined by appropriate government agency **Buyer Usage:** *This should either be a US state code or Country Sub-Entity code. Valid values are found at:* *http://www.unece.org/cefact/locode/service/sublocat.htm* *Only 2 characters for a Country Sub-Entity code can be sent. Leave blank if your sub-country code is 3 characters.*				
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 **Buyer Usage:** *The international Standards Organization (ISO) 2 alpha country code.*				

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.

Example:

N1^MF^PANS R US
N3^1701 18th Street^Highview Terrace
N4^Northbrook^IL^60062^US
N1^MF^Bobs Pans
N3^1855 North Lake^Hwy 15
N4^Northbrook^IL^60062^US

PER Administrative Communications Contact

Pos: 270 **Max: 3**
Detail - Optional
Loop: N1 **Elements: 8**

User Option (Usage): Used
Purpose: To identify a person or office to whom administrative communications should be directed

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PER01	366	**Contact Function Code**	M	ID	2/2	Must use
		Description: Code identifying the major duty or responsibility of the person or group named				
		Code **Name** IC Information Contact				
PER02	93	**Name**	O	AN	1/60	Used
		Description: Free-form name				
PER03	365	**Communication Number Qualifier**	X	ID	2/2	Used
		Description: Code identifying the type of communication number				
		Code **Name** EM Electronic Mail FX Facsimile TE Telephone				
PER04	364	**Communication Number**	X	AN	1/80	Used
		Description: Complete communications number including country or area code when applicable				
PER05	365	**Communication Number Qualifier**	X	ID	2/2	Used
		Description: Code identifying the type of communication number				
		Code **Name** EM Electronic Mail FX Facsimile TE Telephone				
PER06	364	**Communication Number**	X	AN	1/80	Used
		Description: Complete communications number including country or area code when applicable				
PER07	365	**Communication Number Qualifier**	X	ID	2/2	Used
		Description: Code identifying the type of communication number				
		Code **Name** EM Electronic Mail FX Facsimile TE Telephone				
PER08	364	**Communication Number**	X	AN	1/80	Used
		Description: Complete communications number including country or area code when applicable				

Syntax Rules:

1. P0304 - If either PER03 or PER04 is present, then the other is required.
2. P0506 - If either PER05 or PER06 is present, then the other is required.

3. P0708 - If either PER07 or PER08 is present, then the other is required.

Buyer Usage:

Shipping Department contact is advised when N1_01 = "SF" and Not Used when N1_01 = "ST". Require at least one communication qualifier and number if segment used.

Example:

PER^IC^Joe in Shipping^TE^1-999-555-1212

Loop Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Loop Summary:

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

Example:

HL^2^1^O
PRF^9996546
REF^IA^999999

HL Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				

Code	Name
O	Order

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.

Example:

HL^2^1^O

PRF Purchase Order Reference

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

User Option (Usage): Used
Purpose: To provide reference to a specific purchase order

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PRF01	324	**Purchase Order Number**	M	AN	1/22	Must use
		Description: Identifying number for Purchase Order assigned by the orderer/purchaser **Buyer Usage:** *Must match BEG03 of corresponding 850 Purchase Order*				

Semantics:

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

Example:

PRF^9996546

REF Reference Identification

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

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
REF01	128	**Reference Identification Qualifier**	M	ID	2/3	Must use
		Description: Code qualifying the Reference Identification				
		Code **Name** IA Internal Vendor Number				
REF02	127	**Reference Identification**	M	AN	1/30	Must use
		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.

Example:

Buyer requires this be sent. It must match what was sent in the original 850 transaction element REF_02 where REF_01 = "IA".

REF^IA^1234567

Loop Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Loop Summary:

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

Example:

HL^3^2^P
MAN^W^01100014480000001656
MAN^GM^00000340860075232433

HL Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				

Code	Name
P	Pack

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.

Example:

HL^3^2^P

MAN Marks and Numbers

Pos: 190 **Max: >1**
Detail - Optional
Loop: HL **Elements: 2**

User Option (Usage): Used
Purpose: To indicate identifying marks and numbers for shipping containers

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
MAN01	88	**Marks and Numbers Qualifier**	M	ID	1/2	Must use
		Description: Code specifying the application or source of Marks and Numbers (87)				
		Code **Name**				
		W Pallet Number				
		Buyer Usage: *If carton/containers are palletized:* *UCC/EAN-128 Serial Shipping Container Code (SSCC-18) for each pallet cartoncontainers or on.*				
		GM SSCC-18 and Application Identifier				
		Buyer Usage: *UCC/EAN-128 Serial Shipping Container Code (SSCC-18) for individual carton/container*				
MAN02	87	**Marks and Numbers**	M	AN	1/48	Must use
		Description: Marks and numbers used to identify a shipment or parts of a shipment				

Syntax Rules:

1. P0405 - If either MAN04 or MAN05 is present, then the other is required.
2. C0605 - If MAN06 is present, then MAN05 is required.

Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

Comments:

1. When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2. MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers.
3. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.

Example:

This example depicts a carton on a pallet. Each carton will need to reference the pallet ID that it is on.

MAN^W^01100014480000001656
MAN^GM^00000340860075232433

This example depicts a non-palletized carton:

MAN^GM^00000340860075232433

Loop Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Loop Summary:

Pos	Id	Segment Name	Req	Max Use	Repeat	Usage
010	HL	Hierarchical Level	M	1		Must use
020	LIN	Item Identification	O	1		Must use
030	SN1	Item Detail (Shipment)	O	1		Used
060	PO4	Item Physical Details	O	1		Used
110	TD1	Carrier Details (Quantity and Weight)	O	20		Used
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12		Used
200	DTM	Date/Time Reference	O	10		Must use

Example:

HL^4^3^I
LIN^^PL^1^IN^396109
SN1^^30^EA
PO4^3^^^^^^^^^^^^^^10
TD1^CTN90^3^^^^G^52^LB
TD1^CTN90^3^^^^N^45^LB
TD5^^^^^^CC
DTM^068^20071119
HL^5^3^I
LIN^^PL^10^IN^396745
SN1^^100^EA
PO4^5^^^^^^^^^^^^^^20
TD1^CTN90^5^^^^G^30^LB
TD1^CTN90^5^^^^N^25^LB
DTM^068^20071119

HL Hierarchical Level

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

User Option (Usage): Must use
Purpose: To identify dependencies among and the content of hierarchically related groups of data segments

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
HL01	628	**Hierarchical ID Number**	M	AN	1/12	Must use
		Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure				
HL02	734	**Hierarchical Parent ID Number**	O	AN	1/12	Used
		Description: Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to				
HL03	735	**Hierarchical Level Code**	M	ID	1/2	Must use
		Description: Code defining the characteristic of a level in a hierarchical structure				
		Code **Name** I Item				

Comments:

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

Example:

HL^4^3^I

LIN Item Identification

Pos: 020	Max: 1
Detail - Optional	
Loop: HL	Elements: 6

User Option (Usage): Must use
Purpose: To specify basic item identification data

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
LIN02	235	**Product/Service ID Qualifier**	M	ID	2/2	Must use
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		Code **Name** PL Purchaser's Order Line Number **Buyer Usage:** *Original PO Line Item Number required by Buyer. Must match PO1_01 from 850.*				
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	Must use
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		Code **Name** IN Buyer's Item Number **Buyer Usage:** *6 digit SKU number*				
LIN05	234	**Product/Service ID**	X	AN	1/48	Must use
		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** VN Vendor's (Seller's) Item Number				
LIN07	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.

Example:

LIN^^PL^1^IN^396109^VN^7618-AZ

SN1 Item Detail (Shipment)

Pos: 030	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

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

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
SN102	382	**Number of Units Shipped**	M	R	1/10	Must use
		Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set				
SN103	355	**Unit or Basis for Measurement Code**	M	ID	2/2	Must use
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				

Code	Name
EA	Each

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.

Example:

Quantity of the item shipped in this pack

SN1^^30^EA

PO4 Item Physical Details

Pos: 060	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Used
Purpose: To specify the physical qualities, packaging, weights, and dimensions relating to the item

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
PO401	356	**Pack**	O	N0	1/6	Used
		Description: The number of inner containers, or number of eaches if there are no inner containers, per outer container **Buyer Usage:** *Number of inner packs per carton.* *If the PO specified the SKU has a carton master pack of 30 and an inner pack of 10 then this element should be 3 (30/10 = 3 inner cartons).*				
PO414	810	**Inner Pack**	O	N0	1/6	Used
		Description: The number of eaches per inner container **Buyer Usage:** *The number of pieces in each inner carton.* *f the PO specified the SKU has a carton master pack of 30 and an inner pack of 10 then this element should be 10 (10 pieces per inner carton).*				

Syntax Rules:

1. P0203 - If either PO402 or PO403 is present, then the other is required.
2. C0506 - If PO405 is present, then PO406 is required.
3. P0607 - If either PO406 or PO407 is present, then the other is required.
4. P0809 - If either PO408 or PO409 is present, then the other is required.
5. C1013 - If PO410 is present, then PO413 is required.
6. C1113 - If PO411 is present, then PO413 is required.
7. C1213 - If PO412 is present, then PO413 is required.
8. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
9. C1716 - If PO417 is present, then PO416 is required.
10. C1804 - If PO418 is present, then PO404 is required.

Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

Comments:

1. PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the pack (PO401) /size (PO402) measure which indicates the quantity in the inner pack unit. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ".
2. PO413 defines the unit of measure for PO410, PO411, and PO412.

Example:

The following example shows that each carton has three inner packs and each pack has 10 pieces in it. This represents a total of 30 pieces shipped in the carton.

PO4^3^^^^^^^^^^^^10

TD1 Carrier Details (Quantity and Weight)

Pos: 110 **Max: 20**
Detail - Optional
Loop: HL **Elements: 5**

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** BAG90 Bag, Standard BAL90 Bale, Standard CRT90 Crate, Standard CTN90 Carton, Standard PLT90 Pallet, Standard TRY90 Tray, Standard WRP90 Wrapped, Standard				
TD102	80	**Lading Quantity**	X	N0	1/7	Used
		Description: Number of units (pieces) of the lading commodity **Buyer Usage:** *Total Number of inner packs in the carton/container Should match PO401 quantity.*				
TD106	187	**Weight Qualifier**	O	ID	1/2	Used
		Description: Code defining the type of weight				
		Code **Name** G Gross Weight N Actual Net Weight				
TD107	81	**Weight**	X	R	1/10	Used
		Description: Numeric value of weight **Buyer Usage:** *Total weight for all inner packs in the carton/container.*				
TD108	355	**Unit or Basis for Measurement Code**	X	ID	2/2	Used
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		Code **Name** KG Kilogram LB Pound				

Syntax Rules:

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

Example:

There are two inner packs in the carton and each inner pack has a gross weight of 26lbs and net weight of 22.5 lbs.

TD1^CTN90^2^^^^G^52^LB
TD1^CTN90^2^^^^N^45^LB

TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 120 **Max: 12**
Detail - Optional
Loop: HL **Elements: 1**

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
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				
		Code **Name**				
		CC Shipment Complete on (Date)				

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.

Buyer Usage:

Only send segment if TD5_06 = "CC".
This segment will indicate final shipment for Line Item

Example:

TD5^^^^^^CC

DTM Date/Time Reference

Pos: 200	Max: 10
Detail - Optional	
Loop: HL	Elements: 2

User Option (Usage): Must use
Purpose: To specify pertinent dates and times

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
DTM01	374	**Date/Time Qualifier**	M	ID	3/3	Must use
		Description: Code specifying type of date or time, or both date and time				
		Code **Name** 068 Current Schedule Ship **Buyer Usage:** *Required by buyer. Current scheduled shipment date from the most recent purchase order Acknowledgment.*				
DTM02	373	**Date**	X	DT	8/8	Must use
		Description: Date expressed as CCYYMMDD				

Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

Buyer Usage:

A DTM segment with the most recent PO acknowledgment date is required by the buyer.

Example:

DTM^068^20071119

CTT Transaction Totals

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

User Option (Usage): Used
Purpose: To transmit a hash total for a specific element in the transaction set

Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
CTT01	354	**Number of Line Items**	M	N0	1/6	Must use
		Description: Total number of line items in the transaction set				
		Buyer Usage: *Total number of HL Segments in Transaction Set.*				

Syntax Rules:

1. P0304 - If either CTT03 or CTT04 is present, then the other is required.
2. P0506 - If either CTT05 or CTT06 is present, then the other is required.

Comments:

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.

Example:

CTT^14

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.

Example:

SE^35^1234

GE Functional Group Trailer

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

User Option (Usage): Must use
Purpose: 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**	M	N0	1/6	Must use
		Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element				
GE02	28	**Group Control Number**	M	N0	1/9	Must use
		Description: Assigned number originated and maintained by the sender				

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.

Example:

GE^1^101

IEA Interchange Control Trailer

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

User Option (Usage): Must use
Purpose: 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**	M	N0	1/5	Must use
		Description: A count of the number of functional groups included in an interchange				
IEA02	I12	**Interchange Control Number**	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				

Example:

IEA^1^000000310

Complex Example to Demonstrate SOPI Structure Capabilities

The following example depicts two pallets, two cartons on each pallet with three of the cartons containing two items.

Purchase Order - 9996546
Pallet 1 - 01100014480000001656
  Carton 1 - 00000340860075232433
    Item 1 - 396109 Item 2 - 396745
  Carton 2 - 00000340860075232455
    Item 1 - 396354

Purchase Order - 2450926
Pallet 2 - 01100014480000001771
  Carton 1 - 00000340860074989060
    Item 1 - 675849 Item 2 - 677205
  Carton 2 - 00000340860074989046
    Item 1 - 677205 Item 2 - 680095

PLEASE NOTE that a purchase order should only have ONE item per carton and that this structure was ONLY built for flexibility related to special use circumstances, future applicability and internal use.

HL^2^1^O
PRF^9996546
REF^IA^999999
HL^3^2^P
MAN^W^01100014480000001656
MAN^GM^00000340860075232433
HL^4^3^I
LIN^^PL^1^IN^396109
SN1^^30^EA
PO4^3^^^^^^^^^^^^10
TD1^CTN90^3^^^^G^52^LB
TD1^CTN90^3^^^^N^45^LB
TD5^^^^^^CC
DTM^068^20071119
HL^5^3^I
LIN^^PL^10^IN^396745

SN1^^100^EA
PO4^5^^^^^^^^^^^^^20
TD1^CTN90^5^^^^G^30^LB
TD1^CTN90^5^^^^N^25^LB
DTM^068^20071119
HL^6^2^P
MAN^W^01100014480000001656
MAN^GM^00000340860075232455
HL^7^6^I
LIN^^PL^2^IN^396354
SN1^^144^EA
PO4^4^^^^^^^^^^^^^36
TD1^CTN90^4^^^^G^280.5^LB
TD1^CTN90^4^^^^N^275^LB
DTM^068^20071119
HL^8^1^O
PRF^2450926
REF^IA^999999
HL^9^8^P
MAN^W^01100014480000001771
MAN^GM^00000340860074989060
HL^10^9^I
LIN^^PL^3^IN^675849
SN1^^42^EA
PO4^1^^^^^^^^^^^^^42
TD1^CTN90^1^^^^G^312.5^LB
TD1^CTN90^1^^^^N^275^LB
DTM^068^20071119
HL^11^9^I
LIN^^PL^5^IN^677205
SN1^^30^EA
PO4^2^^^^^^^^^^^^^15
TD1^CTN90^2^^^^G^23^LB
TD1^CTN90^2^^^^N^22.5^LB
DTM^068^20071119
HL^12^8^P
MAN^W^01100014480000001771
MAN^GM^00000340860074989046
HL^13^12^I
LIN^^PL^5^IN^677205
SN1^^30^EA
PO4^1^^^^^^^^^^^^^30
TD1^CTN90^1^^^^G^23^LB

TD1^CTN90^1^^^^N^22.5^LB
DTM^068^20071119
HL^14^12^I
LIN^^PL^5^IN^680095
SN1^^40^EA
PO4^4^^^^^^^^^^^^^^10
TD1^CTN90^4^^^^G^62.5^LB
TD1^CTN90^4^^^^N^61^LB
DTM^068^20071119

The next page contains a visual representation of the previous data example

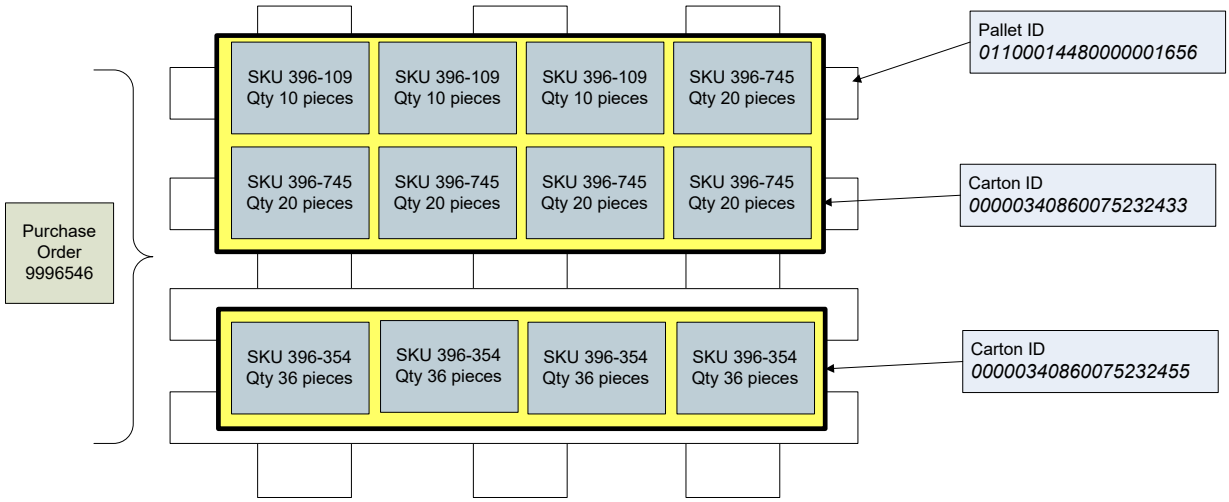
Pallet *56 with 2 cartons and 1 carton has multiple SKUs

Carton *33 contains 8 inner packs of different SKUs

3 Inner Packs of SKU 396-109 with 10 pieces in each inner pack for a total of 30 pieces

5 Inner Packs of SKU 396-745 with 20 pieces in each inner pack for a total of 100 pieces

Carton *55 contains 4 inner packs of the same SKU (396-354) with 36 pieces in each inner pack



Pallet *71 with 2 Cartons and multiple SKUs – Carton *60 shows weight information

Carton *60 contains 3 inner packs of different SKUs – weights are shown for this carton only but they do exist in the EDI message example for other cartons.

1 Inner Pack of SKU 675-849 with 42 pieces. Inner pack gross weight 312.5 pounds.
2 Inner Packs of SKU 677-205 with 15 pieces in each inner pack for a total of 30 pieces.
The total gross weight of 2 inner packs is 23 pounds so each inner pack is 11.5 lbs.

Carton *46 contains 5 inner packs of different SKUs

1 Inner Pack of SKU 677-205 with 30 pieces
4 Inner Packs of SKU 680-095 with 10 pieces in each inner pack for a total of 40 pieces