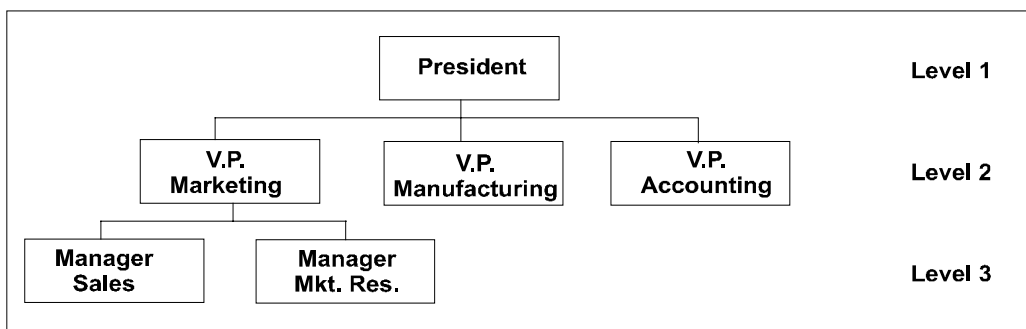# 856 Ship Notice/Manifest

PREFACE

This is the AIAG's recommended usage for the 856 - Ship Notice/Manifest for ASC X12 version release 004010. Prior to starting any activity to implement EDI, the trading partner should be contacted.

As part of the publication process for AIAG EDI Implementation Guidelines for release 004010, the AIAG has developed supplemental documents, the *Supply Chain Recommended Business Practices for EDI Implementation* in a **PUSH** (requirement-based) or **PULL** (consumption-based) manufacturing environment. These should be used for first time implementers or those making significant changes to their existing implementations.

USAGE CONVENTIONS

> **Note: This section is a compilation of previously established EDI usage conventions. If the *Supply Chain Recommended Business Practices for EDI Implementation* is** being **used, disregard this section.**

This transaction is more complex than the typical ASC X12 transaction set. Therefore, a slightly different approach was taken in the implementation guidelines to make it easier to understand. The complexity can be attributed to the design concept of using hierarchical levels. To visualize what this means, think of a typical organization chart:

This organization chart shows three levels. The ship notice/manifest organizes data in the same manner as the organization chart.

There are two or more levels used for purchased parts. One level contains information for the entire shipment (i.e., Shipment ID Number, Gross Shipment weight) and the other level will occur one or more times under the shipment level and contains information about each part in the shipment. The Shipment Level (HL03 = "S") is used for the first level. The level used for the part information is different amongst the OEMs. Most commonly used are the Order Level (HL03 = "0") and the Item Level (HL03 = "I"). For purchased parts, these levels contain the same basic part information.

- Shipment Level
- Order Level
- Item Level

For those who desire to understand the structure of the ship notice manifest we have included the following explanation. An important feature of the ship notice/manifest is the concept of the hierarchical level. Much as an organization chart relates groups of people in an organization, the hierarchical level in a ship notice/manifest depicts relationships among levels of detail in a shipment: pallets on a truck, part numbers on a pallet, cartons of a part number, etc. The following hierarchical levels are used in the automotive industry:

SHIPMENT	**(S)**	Data that applies to the whole shipment, such as bill of lading number, lading quantity, supplier code, etc.
EQUIPMENT	**(E)**	Data that is unique to the delivery equipment. This level would normally appear only if there are multiple pieces of equipment involved in the shipment. If the shipment is contained within one truck, for example, equipment data is included in the shipment level.
ORDER	**(O)**	Data related to the customer's order. The order level is used to show the part number, customer order number, vendor order number and weights
TARE	**(T)**	Data related to a shipping container, such as a pallet, bin, or rack where it is necessary to maintain a collective identity of the items in that container. If a pallet is controlled by a master label, for example, the tare level would be used.
KIT	**(K)**	Data related to an identifiable collection of items, such as a carburetor repair kit.
ITEM	**(I)**	Data related to the product being shipped. This level will be used unless no detail is required
PACK	**(P)**	Data related to the package, carton, etc. in which the item is shipped, such as label serial numbers and physical measurements.
SUBPACK	**(Q)**	Data related to a grouping of packages within the pack level, for example, a pack of cigarettes would be a subpack of a carton of cigarettes

Values in parentheses represent codes used in HL03 (hierarchical level code).

Hierarchical levels may be used in any sequence and levels may be skipped, providing the flexibility to specify only the amount of detail and the sequence required. For example, by transmitting only the shipment level, a supplier can satisfy a customer's need to know only that a specific order has been shipped, with no detail. At the other extreme, the ship notice/manifest can be used to provide shipping manifest detail down to descriptions of subpacks within cartons. The decision as to how much detail is required is a matter of mutual agreement between customer and supplier. The relationships among hierarchical levels in a specific ship notice/manifest are defined by the use of the mandatory **HL** segment:

HL	*	HL01 628 Hierarchical ID Number M AN 1/12	*	HL02 734 Hierarchical Parent ID Number O ID 1/12	*	HL03 735 Hierarchical Level Code M ID 1/2
	*	HL04 736 Hierarchical Child Code O ID 1/1	N/L			

HL01 (HIERARCHICAL ID NUMBER)

This data element must contain a unique label for each occurrence of the HL segment in the ship notice/manifest. An HL segment is required to define each node in the hierarchical "tree" (see example on the page 5). For example, in a simple ship notice/manifest with three line items in a shipment of one order, five occurrences of the HL segment are required: one for the shipment level, one for order and one for each item. By convention, the hierarchical ID number should start with "1" for the first occurrence of the HL segment in the transaction set and increment by one for each occurrence thereafter within the same transaction set. The number will return to "1" for the next transaction set.

HL02 (HIERARCHICAL PARENT ID NUMBER)

This data element identifies the hierarchical ID number of the HL segment to which it is subordinate. In our simple example below, the hierarchical parent ID number of each of the line item occurrences of the HL segments will be "2", identifying the order level HL segment. The value of HL02 for the shipment HL segment will be null because it has no parent HL segment; HL02 is required for all other occurrences of the HL segment.

HL03 (HIERARCHICAL LEVEL CODE)

This data element provides the level of detail implied by the series of segments that follow the current HL segment, up to the next occurrences of the HL segment in the transaction set. For example, if HL03 is "S", it indicates the following segments form a logical grouping of data relating to shipment level information. Similarly, if HL03 is "I", it indicates the segments that follow refer to item information.

HL04 (HIERARCHICAL CHILD CODE)

This data element indicates whether there are subordinate, or child, HL segments to the current HL segment. Use of this data element is optional. If used, a value of "0" (zero) will indicate no subordinate HL segments and a value of "1" (one) will indicate one or more subordinate HL segments.

The numbering for and transmission of HL segments for multiple-level shipments is "top-to-bottom, left-to-right".

The example on the following page shows a shipment of two containers shipped on a truck from a supplier to a customer.

There are three levels of detail: shipment, order and item.

- HEADING AREA

  - The example has a heading area consisting of three segments: the "ST", the "BSN" and the "DTM".

- SHIPMENT AREA

  - Shipment Gross and Net Weights

  - Number of Packages

  - Carrier and Vehicle Numbers

  - Packing List Number

  - Shipped to

  - Shipped from

- ORDER AREA

  - Customer's Part Number

  - Total Quantity Shipped, Cumulative Quantity Shipped

  - Customer's Order Number

  - Total Number of Containers

- ITEM AREA

  - Detail Quantity Shipped

  - Item Label Serial Number

- TRAILER AREA

  - The last two segments shown, "CTT" and "SE", are trailer segments for control totals.

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.

Table 1

PAGE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
11	010	ST	Transaction Set Header	M	1	
12	020	BSN	Beginning Segment for Ship Notice	M	1	
13	040	DTM	Date/Time Reference	O	10	

Table 2 - Shipment

PAGE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
			LOOP ID - HL			**200000**
14	010	HL	Hierarchical Level	M	1	
N/U	020	LIN	Item Identification	O	1	
N/U	030	SN1	Item Detail (Shipment)	O	1	
N/U	040	SLN	Subline Item Detail	O	1000	
N/U	050	PRF	Purchase Order Reference	O	1	
N/U	060	PO4	Item Physical Details	O	1	
N/U	070	PID	Product/Item Description	O	200	
15	080	MEA	Measurements	O	40	
N/U	090	PWK	Paperwork	O	25	
N/U	100	PKG	Marking, Packaging, Loading	O	25	
17	110	TD1	Carrier Details (Quantity and Weight)	O	20	
18	120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12	
20	130	TD3	Carrier Details (Equipment)	O	12	
21	140	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5	
N/U	145	TSD	Trailer Shipment Details	O	1	
22	150	REF	Reference Identification	O	>1	
N/U	151	PER	Administrative Communications Contact	O	3	
			LOOP ID - HL/LH1			**100**
N/U	152	LH1	Hazardous Identification Information	O	1	
N/U	153	LH2	Hazardous Classification Information	O	4	
N/U	154	LH3	Hazardous Material Shipping Name	O	12	
N/U	155	LFH	Freeform Hazardous Material Information	O	20	
N/U	156	LEP	EPA Required Data	O	>1	
N/U	157	LH4	Canadian Dangerous Requirements	O	1	

N/U	158	LHT	Transborder Hazardous Requirements	O	3
N/U	159	LHR	Hazardous Material Identifying Reference Numbers	O	10
N/U	160	PER	Administrative Communications Contact	O	5
N/U	161	LHE	Empty Equipment Hazardous Material Information	O	1
			LOOP ID - HL/CLD		**200**
N/U	170	CLD	Load Detail	O	1
N/U	180	REF	Reference Identification	O	200
N/U	185	DTP	Date or Time or Period	O	1
N/U	190	MAN	Marks and Numbers	O	>1
N/U	200	DTM	Date/Time Reference	O	10
23	210	FOB	F.O.B. Related Instructions	O	1
N/U	215	PAL	Pallet Information	O	1
			LOOP ID - HL/N1		**200**
24	220	N1	Name	O	1
N/U	230	N2	Additional Name Information	O	2
N/U	240	N3	Address Information	O	2
N/U	250	N4	Geographic Location	O	1
25	260	REF	Reference Identification	O	12
N/U	270	PER	Administrative Communications Contact	O	3
N/U	280	FOB	F.O.B. Related Instructions	O	1
N/U	290	SDQ	Destination Quantity	O	50
26	300	ETD	Excess Transportation Detail	O	1
27	310	CUR	Currency	O	1
			LOOP ID - HL/SAC		**>1**
29	320	SAC	Service, Promotion, Allowance, or Charge Information	O	1
N/U	325	CUR	Currency	O	1
N/U	330	GF	Furnished Goods and Services	O	1
N/U	335	YNQ	Yes/No Question	O	10
			LOOP ID - HL/LM		**10**
N/U	340	LM	Code Source Information	O	1
N/U	350	LQ	Industry Code	M	100
			LOOP ID - HL/V1		**>1**
31	360	V1	Vessel Identification	O	1
32	370	R4	Port or Terminal	O	>1
33	380	DTM	Date/Time Reference	O	>1

Table 2 - Order

PAGE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
			LOOP ID - HL			**200000**
34	010	HL	Hierarchical Level	M	1	
35	020	LIN	Item Identification	O	1	
37	030	SN1	Item Detail (Shipment)	O	1	
N/U	040	SLN	Subline Item Detail	O	1000	
38	050	PRF	Purchase Order Reference	O	1	
N/U	060	PO4	Item Physical Details	O	1	
N/U	070	PID	Product/Item Description	O	200	
N/U	080	MEA	Measurements	O	40	
N/U	090	PWK	Paperwork	O	25	
N/U	100	PKG	Marking, Packaging, Loading	O	25	
N/U	110	TD1	Carrier Details (Quantity and Weight)	O	20	
N/U	120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12	

N/U	130	TD3	Carrier Details (Equipment)	O	12	
N/U	140	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5	
N/U	145	TSD	Trailer Shipment Details	O	1	
39	150	REF	Reference Identification	O	>1	
N/U	151	PER	Administrative Communications Contact	O	3	
			LOOP ID - HL/LH1			**100**
N/U	152	LH1	Hazardous Identification Information	O	1	
N/U	153	LH2	Hazardous Classification Information	O	4	
N/U	154	LH3	Hazardous Material Shipping Name	O	12	
N/U	155	LFH	Freeform Hazardous Material Information	O	20	
N/U	156	LEP	EPA Required Data	O	>1	
N/U	157	LH4	Canadian Dangerous Requirements	O	1	
N/U	158	LHT	Transborder Hazardous Requirements	O	3	
N/U	159	LHR	Hazardous Material Identifying Reference Numbers	O	10	
N/U	160	PER	Administrative Communications Contact	O	5	
N/U	161	LHE	Empty Equipment Hazardous Material Information	O	1	
			LOOP ID - HL/CLD			**200**
40	170	CLD	Load Detail	O	1	
41	180	REF	Reference Identification	O	200	
N/U	185	DTP	Date or Time or Period	O	1	
N/U	190	MAN	Marks and Numbers	O	>1	
N/U	200	DTM	Date/Time Reference	O	10	
N/U	210	FOB	F.O.B. Related Instructions	O	1	
N/U	215	PAL	Pallet Information	O	1	
			LOOP ID - HL/N1			**200**
42	220	N1	Name	O	1	
N/U	230	N2	Additional Name Information	O	2	
N/U	240	N3	Address Information	O	2	
N/U	250	N4	Geographic Location	O	1	
43	260	REF	Reference Identification	O	12	
N/U	270	PER	Administrative Communications Contact	O	3	
N/U	280	FOB	F.O.B. Related Instructions	O	1	
N/U	290	SDQ	Destination Quantity	O	50	
44	300	ETD	Excess Transportation Detail	O	1	
N/U	310	CUR	Currency	O	1	
			LOOP ID - HL/SAC			**>1**
45	320	SAC	Service, Promotion, Allowance, or Charge Information	O	1	
N/U	325	CUR	Currency	O	1	
N/U	330	GF	Furnished Goods and Services	O	1	
N/U	335	YNQ	Yes/No Question	O	10	
			LOOP ID - HL/LM			**10**
N/U	340	LM	Code Source Information	O	1	
N/U	350	LQ	Industry Code	M	100	
			LOOP ID - HL/V1			**>1**
47	360	V1	Vessel Identification	O	1	
48	370	R4	Port or Terminal	O	>1	
49	380	DTM	Date/Time Reference	O	>1	

Table 2 - Item

PAGE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
			LOOP ID - HL			**200000**
50	010	HL	Hierarchical Level	M	1	
51	020	LIN	Item Identification	O	1	
53	030	SN1	Item Detail (Shipment)	O	1	
N/U	040	SLN	Subline Item Detail	O	1000	
54	050	PRF	Purchase Order Reference	O	1	
N/U	060	PO4	Item Physical Details	O	1	
N/U	070	PID	Product/Item Description	O	200	
55	080	MEA	Measurements	O	40	
N/U	090	PWK	Paperwork	O	25	
N/U	100	PKG	Marking, Packaging, Loading	O	25	
N/U	110	TD1	Carrier Details (Quantity and Weight)	O	20	
N/U	120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12	
N/U	130	TD3	Carrier Details (Equipment)	O	12	
N/U	140	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	5	
N/U	145	TSD	Trailer Shipment Details	O	1	
57	150	REF	Reference Identification	O	>1	
N/U	151	PER	Administrative Communications Contact	O	3	
			LOOP ID - HL/LH1			**100**
N/U	152	LH1	Hazardous Identification Information	O	1	
N/U	153	LH2	Hazardous Classification Information	O	4	
N/U	154	LH3	Hazardous Material Shipping Name	O	12	
N/U	155	LFH	Freeform Hazardous Material Information	O	20	
N/U	156	LEP	EPA Required Data	O	>1	
N/U	157	LH4	Canadian Dangerous Requirements	O	1	
N/U	158	LHT	Transborder Hazardous Requirements	O	3	
N/U	159	LHR	Hazardous Material Identifying Reference Numbers	O	10	
N/U	160	PER	Administrative Communications Contact	O	5	
N/U	161	LHE	Empty Equipment Hazardous Material Information	O	1	
			LOOP ID - HL/CLD			**200**
58	170	CLD	Load Detail	O	1	
59	180	REF	Reference Identification	O	200	
N/U	185	DTP	Date or Time or Period	O	1	
N/U	190	MAN	Marks and Numbers	O	>1	
60	200	DTM	Date/Time Reference	O	10	
N/U	210	FOB	F.O.B. Related Instructions	O	1	
N/U	215	PAL	Pallet Information	O	1	
			LOOP ID - HL/N1			**200**
61	220	N1	Name	O	1	
N/U	230	N2	Additional Name Information	O	2	
N/U	240	N3	Address Information	O	2	
N/U	250	N4	Geographic Location	O	1	
62	260	REF	Reference Identification	O	12	
N/U	270	PER	Administrative Communications Contact	O	3	
N/U	280	FOB	F.O.B. Related Instructions	O	1	
N/U	290	SDQ	Destination Quantity	O	50	
63	300	ETD	Excess Transportation Detail	O	1	
N/U	310	CUR	Currency	O	1	

		LOOP ID - HL/SAC				**>1**
64	320	SAC	Service, Promotion, Allowance, or Charge Information	O	1	
N/U	325	CUR	Currency	O	1	
N/U	330	GF	Furnished Goods and Services	O	1	
N/U	335	YNQ	Yes/No Question	O	10	
		LOOP ID - HL/LM				**10**
N/U	340	LM	Code Source Information	O	1	
N/U	350	LQ	Industry Code	M	100	
		LOOP ID - HL/V1				**>1**
66	360	V1	Vessel Identification	O	1	
67	370	R4	Port or Terminal	O	>1	
68	380	DTM	Date/Time Reference	O	>1	

Table 3

PAGE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
69	010	CTT	Transaction Totals	O	1	
70	020	SE	Transaction Set Trailer	M	1	

Segment: **ST**   **Transaction Set Header**

    Level: Header

    Loop: ____

    Usage: Mandatory

Max Use: 1

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

Semantic: **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).

    Notes: **The Transaction Set Control Number (ST02) in this header must match the Transaction Set Control Number (SE02) in the Transaction Set Trailer (SE).**

<p align="center">Data Element Summary</p>

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
ST01	**143**	**Transaction Set Identifier Code**	**M**	**ID**	**3/3**
		Code uniquely identifying a Transaction Set			

CODE	DEFINITION
856	**Ship Notice/Manifest**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
ST02	**329**	**Transaction Set Control Number**	**M**	**AN**	**4/9**
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set			

Segment: **BSN** Beginning Segment for Ship Notice
Level: Header
Loop: ____
Usage: Mandatory
Max Use: 1
Purpose: To transmit identifying numbers, dates, and other basic data relating to the transaction set

Syntax: 1 C0706 - If BSN07 is present, then BSN06 is required.
Semantic: 1 BSN03 is the date the shipment transaction set is created.
2 BSN04 is the time the shipment transaction set is created.
3 BSN06 is limited to shipment related codes.
Comments: A BSN06 and BSN07 differentiate the functionality of use for the transaction set.

Notes: **The date and time are the date and local time of the creation of the transaction.**

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
BSN01	353	**Transaction Set Purpose Code**	M	ID	2/2

Code identifying purpose of transaction set

CODE	DEFINITION
00	**Original**
01	**Cancellation**
05	**Replace**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
BSN02	396	**Shipment Identification**	M	AN	2/30

A unique control number assigned by the original shipper to identify a specific shipment

Unique supplier-assigned number that is not repeated within a one year period when BSN01 = "00".

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
BSN03	373	**Date**	M	DT	8/8

Date expressed as CCYYMMDD

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
BSN04	337	**Time**	M	TM	4/8

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)

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
BSN05	1005	**Hierarchical Structure Code**	O	ID	4/4

Code indicating the hierarchical application structure of a transaction set that utilizes the HL segment to define the structure of the transaction set

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Not Used	BSN06	640	**Transaction Type Code**	X	ID	2/2

Code specifying the type of transaction

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Not Used	BSN07	641	**Status Reason Code**	O	ID	3/3

Code indicating the status reason

Segment: **DTM** Date/Time Reference

Level: Header

Loop: ____

Usage: Optional

Max Use: 10

Purpose: To specify pertinent dates and times

Syntax: **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.

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
	DTM01	374	**Date/Time Qualifier**	M	ID	3/3

Code specifying type of date or time, or both date and time

One DTM segment with a code value of "011" is required.

CODE	DEFINITION
011	**Shipped**
017	**Estimated Delivery**

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Required	DTM02	373	**Date**	X	DT	8/8

Date expressed as CCYYMMDD

| **Required** | DTM03 | 337 | **Time** | X | TM | 4/8 |

Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)

| | DTM04 | 623 | **Time Code** | O | ID | 2/2 |

Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow

If not used, the date and time is assumed to be the shipper's local time for "011" and the receiver's local time "017".

Any valid X12 code value except mutually defined.

| **Not Used** | DTM05 | 1250 | **Date Time Period Format Qualifier** | X | ID | 2/3 |

Code indicating the date format, time format, or date and time format

| **Not Used** | DTM06 | 1251 | **Date Time Period** | X | AN | 1/35 |

Expression of a date, a time, or range of dates, times or dates and times

Segment:	**HL** **Hierarchical Level**
Level:	Detail -- Shipment
Loop:	HL **Repeat:** 200000
Usage:	Mandatory
Max Use:	1
Purpose:	To identify dependencies among and the content of hierarchically related groups of data segments
Set Comments:	**A** The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
Comments:	**A** 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.
	B The HL segment defines a top-down/left-right ordered structure.
	C 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.
	D HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
	E 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.
	F HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.
Notes:	**HL at the detail Shipment Level must only occur once and must be the first HL in the transaction set.**

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
HL01	**628**	**Hierarchical ID Number**	**M AN 1/12**
		A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	
		Use "1" for this occurrence of the HL at the Shipment Level.	
HL02	**734**	**Hierarchical Parent ID Number**	**O AN 1/12**
		Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	
		Not used for this occurrence of the HL segment.	
HL03	**735**	**Hierarchical Level Code**	**M ID 1/2**
		Code defining the characteristic of a level in a hierarchical structure	

CODE	DEFINITION
S	**Shipment**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
HL04	**736**	**Hierarchical Child Code**	**O ID 1/1**
		Code indicating if there are hierarchical child data segments subordinate to the level being described	

Segment: **MEA** Measurements

Level: Detail -- Shipment

Loop: HL

Usage: Optional

Max Use: 40

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

Syntax: 1 R03050608 - At least one of MEA03, MEA05, MEA06 or MEA08 is required.

2 C0504 - If MEA05 is present, then MEA04 is required.

3 C0604 - If MEA06 is present, then MEA04 is required.

4 L07030506 - If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.

5 E0803 - Only one of MEA08 or MEA03 may be present.

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

Comments: A When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
MEA01	737	**Measurement Reference ID Code**	O	ID	2/2

Code identifying the broad category to which a measurement applies

CODE	DEFINITION
PD	**Physical Dimensions**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
MEA02	738	**Measurement Qualifier**	O	ID	1/3

Code identifying a specific product or process characteristic to which a measurement applies

Code value "G" is required.

Code "N" is required for all rail shipments.

CODE	DEFINITION
G	**Gross Weight**
N	**Actual Net Weight**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**MEA03**	739	**Measurement Value**	X	R	1/20

The value of the measurement

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**MEA04**	355	**Unit or Basis for Measurement Code**	X	ID	2/2

Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

MEA04 is a composite data element, C001, which contains 15 simple data elements. AIAG only utilizes the first component of the composite, data element 355. This implementation guideline reflects that decision by substituting 355 for C001, which is syntactically correct. See chapter 3 entitled "Data Formatting" for further explanation of Composite Data Structures.

Any valid X12 code value except mutually defined; 'ZZ'

CODE	DEFINITION
KG	**Kilogram**
LB	**Pound**

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	MEA05	740	**Range Minimum**	X	R	1/20
			The value specifying the minimum of the measurement range			
Not Used	MEA06	741	**Range Maximum**	X	R	1/20
			The value specifying the maximum of the measurement range			
Not Used	MEA07	935	**Measurement Significance Code**	O	ID	2/2
			Code used to benchmark, qualify or further define a measurement value			
Not Used	MEA08	936	**Measurement Attribute Code**	X	ID	2/2
			Code used to express an attribute response when a numeric measurement value cannot be determined			
Not Used	MEA09	752	**Surface/Layer/Position Code**	O	ID	2/2
			Code indicating the product surface, layer or position that is being described			
Not Used	MEA10	1373	**Measurement Method or Device**	O	ID	2/4
			The method or device used to record the measurement			

Segment:	**TD1** **Carrier Details (Quantity and Weight)**
Level:	Detail -- Shipment
Loop:	HL
Usage:	Optional
Max Use:	20
Purpose:	To specify the transportation details relative to commodity, weight, and quantity

Syntax:
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.

Notes: **Used to specify lading quantity and package type.**

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Required	**TD101**	**103**	**Packaging Code**	O	AN	3/5
			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			
			Use Packaging Code of the shipping unit (e.g. ten boxes on one pallet is specified as one pallet).			
			Any valid X12 code value except mutually defined.			
Required	**TD102**	**80**	**Lading Quantity**	X	N0	1/7
			Number of units (pieces) of the lading commodity			
Not Used	**TD103**	**23**	**Commodity Code Qualifier**	O	ID	1/1
			Code identifying the commodity coding system used for Commodity Code			
Not Used	**TD104**	**22**	**Commodity Code**	X	AN	1/30
			Code describing a commodity or group of commodities			
Not Used	**TD105**	**79**	**Lading Description**	O	AN	1/50
			Description of an item as required for rating and billing purposes			
Not Used	**TD106**	**187**	**Weight Qualifier**	O	ID	1/2
			Code defining the type of weight			
Not Used	**TD107**	**81**	**Weight**	X	R	1/10
			Numeric value of weight			
Not Used	**TD108**	**355**	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
Not Used	**TD109**	**183**	**Volume**	X	R	1/8
			Value of volumetric measure			
Not Used	**TD110**	**355**	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			

Segment: **TD5** Carrier Details (Routing Sequence/Transit Time)

　　　Level: Detail -- Shipment

　　　Loop: HL

　　Usage: Optional

　　　　　　　Required

　Max Use: 12

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

　Syntax: **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.

Semantic: **1** TD515 is the country where the service is to be performed.

Comments: **A** When specifying a routing sequence to be used for the shipment movement in lieu of specifying each carrier within the movement, use TD502 to identify the party responsible for defining the routing sequence, and use TD503 to identify the actual routing sequence, specified by the party identified in TD502.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES		
Required	**TD501**	133	**Routing Sequence Code**		O	ID	1/2
			Code describing the relationship of a carrier to a specific shipment movement				
			CODE　**DEFINITION**				
			B　　　**Origin/Delivery Carrier (Any Mode)**				
Required	**TD502**	66	**Identification Code Qualifier**		X	ID	1/2
			Code designating the system/method of code structure used for Identification Code (67)				
			CODE　**DEFINITION**				
			2　　　**Standard Carrier Alpha Code (SCAC)**				
			SEE CODE SOURCE 17 IN X12 STANDARDS				
Required	**TD503**	67	**Identification Code**		X	AN	2/80
			Code identifying a party or other code				
Required	**TD504**	91	**Transportation Method/Type Code**		X	ID	1/2
			Code specifying the method or type of transportation for the shipment				
			Any valid X12 code value except mutually defined; 'ZZ'				
Not Used	**TD505**	387	**Routing**		X	AN	1/35
			Free-form description of the routing or requested routing for shipment, or the originating carrier's identity				
Not Used	**TD506**	368	**Shipment/Order Status Code**		X	ID	2/2
			Code indicating the status of an order or shipment or the disposition of any difference between the quantity ordered and the quantity shipped for a line item or transaction				
	TD507	309	**Location Qualifier**		O	ID	1/2
			Code identifying type of location				
			If TD504 = 'A', use code value "OR", meaning Origin (Shipping Point).				

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
		CODE	**DEFINITION**		
		OR	**Origin (Shipping Point)**		
		PP	**Pool Point**		
TD508	**310**	**Location Identifier**		X	AN 1/30
		Code which identifies a specific location			
		Give pool code if TD507 is "PP"; give airport code Identifier if TD507 is "OR" for an air shipment (e.g., DTW = Detroit Metro Airport).			
Not Used **TD509**	**731**	**Transit Direction Code**		O	ID 2/2
		The point of origin and point of direction			
Not Used **TD510**	**732**	**Transit Time Direction Qualifier**		O	ID 2/2
		Code specifying the value of time used to measure the transit time			
Not Used **TD511**	**733**	**Transit Time**		X	R 1/4
		The numeric amount of transit time			
Not Used **TD512**	**284**	**Service Level Code**		X	ID 2/2
		Code indicating the level of transportation service or the billing service offered by the transportation carrier			
Not Used **TD513**	**284**	**Service Level Code**		X	ID 2/2
		Code indicating the level of transportation service or the billing service offered by the transportation carrier			
Not Used **TD514**	**284**	**Service Level Code**		O	ID 2/2
		Code indicating the level of transportation service or the billing service offered by the transportation carrier			
TD515	**26**	**Country Code**		O	ID 2/3
		Code identifying the country			

Segment: **TD3** Carrier Details (Equipment)
Level: Detail -- Shipment
Loop: HL
Usage: Optional
Max Use: 12
Purpose: To specify transportation details relating to the equipment used by the carrier

Syntax: 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.

Notes: **Maximum use of this TD3 segment is one. This TD3 is used to identify the serial number of the trailer or railcar.**

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
	TD301	40	**Equipment Description Code**	X	ID	2/2
			Code identifying type of equipment used for shipment			
			Any valid X12 code value except mutually defined.			
	TD302	206	**Equipment Initial**	O	AN	1/4
			Prefix or alphabetic part of an equipment unit's identifying number			
Required	TD303	207	**Equipment Number**	X	AN	1/10
			Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred)			
Not Used	TD304	187	**Weight Qualifier**	O	ID	1/2
			Code defining the type of weight			
Not Used	TD305	81	**Weight**	X	R	1/10
			Numeric value of weight			
Not Used	TD306	355	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
Not Used	TD307	102	**Ownership Code**	O	ID	1/1
			Code indicating the relationship of equipment to carrier or ownership of equipment			
Not Used	TD308	407	**Seal Status Code**	O	ID	2/2
			Code indicating condition of door seal upon arrival			
Not Used	TD309	225	**Seal Number**	O	AN	2/15
			Unique number on seal used to close a shipment			
	TD310	24	**Equipment Type**	X	ID	4/4
			Code identifying equipment type			

Segment:	**TD4** **Carrier Details (Special Handling, or Hazardous Materials, or Both)**
Level:	Detail -- Shipment
Loop:	HL
Usage:	Optional
Max Use:	5
Purpose:	To specify transportation special handling requirements, or hazardous materials information, or both
Syntax:	**1** R010204 - At least one of TD401, TD402 or TD404 is required.
	2 C0203 - If TD402 is present, then TD403 is required.
Semantic:	**1** TD405 identifies if a Material Safety Data Sheet (MSDS) exists for this product. A "Y" indicates an MSDS exists for this product; an "N" indicates an MSDS does not exist for this product.
Notes:	**This segment is REQUIRED if any material contained in the shipment has been classified as hazardous and/or requires special handling.**

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Required	TD401	152	**Special Handling Code**	X	ID	2/3
			Code specifying special transportation handling instructions			
Required	TD402	208	**Hazardous Material Code Qualifier**	X	ID	1/1
			Code which qualifies the Hazardous Material Class Code (209)			
Required	TD403	209	**Hazardous Material Class Code**	X	AN	1/4
			Code specifying the kind of hazard for a material			
	TD404	352	**Description**	X	AN	1/80
			A free-form description to clarify the related data elements and their content			
	TD405	1073	**Yes/No Condition or Response Code**	O	ID	1/1
			Code indicating a Yes or No condition or response			

Segment: **REF** **Reference Identification**
Level: Detail -- Shipment
Loop: HL
Usage: Optional
Max Use: >1
Purpose: To specify identifying information

Syntax: **1** R0203 - At least one of REF02 or REF03 is required.
Semantic: **1** REF04 contains data relating to the value cited in REF02.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**
		Code qualifying the Reference Identification			

Either "BM" or "PK" is required to be transmitted.

CODE	DEFINITION
AO	**Appointment Number**
AW	**Air Waybill Number**
BM	**Bill of Lading Number**
JA	**Beginning Job Sequence Number**
JE	**Ending Job Sequence Number**
MB	**Master Bill of Lading**
PK	**Packing List Number**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**REF02**	**127**	**Reference Identification**	**X**	**AN**	**1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	**REF03**	**352**	**Description**	**X**	**AN**	**1/80**
			A free-form description to clarify the related data elements and their content			
Not Used	**REF04**	**C040**	**Reference Identifier**	**O**		
			To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			

Segment: **FOB** F.O.B. Related Instructions
Level: Detail -- Shipment
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To specify transportation instructions relating to shipment

Syntax: **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.

Semantic: **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.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	FOB01	146	**Shipment Method of Payment**	M	ID	2/2
			Code identifying payment terms for transportation charges			

CODE	DEFINITION
CC	**Collect**
PC	**Prepaid but Charged to Customer**
PP	**Prepaid (by Seller)**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	**FOB02**	309	**Location Qualifier**	X	ID	1/2
			Code identifying type of location			
Not Used	**FOB03**	352	**Description**	O	AN	1/80
			A free-form description to clarify the related data elements and their content			
Not Used	**FOB04**	334	**Transportation Terms Qualifier Code**	O	ID	2/2
			Code identifying the source of the transportation terms			
Not Used	**FOB05**	335	**Transportation Terms Code**	X	ID	3/3
			Code identifying the trade terms which apply to the shipment transportation responsibility			
Not Used	**FOB06**	309	**Location Qualifier**	X	ID	1/2
			Code identifying type of location			
Not Used	**FOB07**	352	**Description**	O	AN	1/80
			A free-form description to clarify the related data elements and their content			
Not Used	**FOB08**	54	**Risk of Loss Code**	O	ID	2/2
			Code specifying where responsibility for risk of loss passes			
Not Used	**FOB09**	352	**Description**	X	AN	1/80
			A free-form description to clarify the related data elements and their content			

Segment: N1   Name

    Level: Detail -- Shipment

    Loop: HL/N1   **Repeat:** 200

    Usage: Optional

Max Use: 1

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

    Syntax: **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: **A** 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.

        B N105 and N106 further define the type of entity in N101.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
N101	98	**Entity Identifier Code**	M	ID	2/3

Code identifying an organizational entity, a physical location, property or an individual

CODE	DEFINITION
BT	**Bill-to-Party**
CS	**Consolidator**
MI	**Planning Schedule/Material Release Issuer**
SF	**Ship From**
ST	**Ship To**
SU	**Supplier/Manufacturer**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
N102	93	**Name**	X	AN	1/60

Free-form name

Required | **N103** | 66 | **Identification Code Qualifier** | X | ID | 1/2 |

Code designating the system/method of code structure used for Identification Code (67)

CODE	DEFINITION
1	**D-U-N-S Number, Dun & Bradstreet**
	SEE CODE SOURCE 16 IN X12 STANDARDS

Required | **N104** | 67 | **Identification Code** | X | AN | 2/80 |

Code identifying a party or other code

Suppress internal dashes and spaces.

Not Used | **N105** | 706 | **Entity Relationship Code** | O | ID | 2/2 |

Code describing entity relationship

Not Used | **N106** | 98 | **Entity Identifier Code** | O | ID | 2/3 |

Code identifying an organizational entity, a physical location, property or an individual

Segment: **REF** Reference Identification

Level: Detail -- Shipment

Loop: HL/N1

Usage: Optional

Max Use: 12

Purpose: To specify identifying information

Syntax: **1** R0203 - At least one of REF02 or REF03 is required.

Semantic: **1** REF04 contains data relating to the value cited in REF02.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**
			Code qualifying the Reference Identification			

CODE	DEFINITION
DK	**Dock Number**
LF	**Assembly Line Feed Location**
RL	**Reserve Assembly Line Feed Location**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**REF02**	**127**	**Reference Identification**	**X**	**AN**	**1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	**REF03**	**352**	**Description**	**X**	**AN**	**1/80**
			A free-form description to clarify the related data elements and their content			
Not Used	**REF04**	**C040**	**Reference Identifier**	**O**		
			To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			

Segment: **ETD** Excess Transportation Detail
Level: Detail -- Shipment
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To specify information relating to premium transportation

Syntax: **1** P0304 - If either ETD03 or ETD04 is present, then the other is required.
Semantic: **1** ETD03 qualifies the authorization number given in EDT04.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	ETD01	626	**Excess Transportation Reason Code**	M	ID	1/2
			Code identifying the reason for shipment via premium transportation rather than the normal mode of transportation			
			Any valid X12 code value except mutually defined; 'ZZ'			
	ETD02	627	**Excess Transportation Responsibility Code**	M	ID	1/1
			Code identifying the organization responsible for paying the premium transportation costs			

CODE DEFINITION

			A	**Customer Plant (Receiving Location)**		
			S	**Supplier Authority**		

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	ETD03	128	**Reference Identification Qualifier**	X	ID	2/3
			Code qualifying the Reference Identification			

CODE DEFINITION

			AE	**Authorization for Expense (AFE) Number**		

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	ETD04	127	**Reference Identification**	X	AN	1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	ETD05	743	**Returnable Container Freight Payment Responsibility Code**	O	ID	1/2
			Code specifying the responsibility for the return freight costs incurred when returnable containers are shipped in a premium transportation			

Segment: **CUR** **Currency**
Level: Detail -- Shipment
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To specify the currency (dollars, pounds, francs, etc.) used in a transaction

Syntax:
1 C0807 - If CUR08 is present, then CUR07 is required.
2 C0907 - If CUR09 is present, then CUR07 is required.
3 L101112 - If CUR10 is present, then at least one of CUR11 or CUR12 is required.
4 C1110 - If CUR11 is present, then CUR10 is required.
5 C1210 - If CUR12 is present, then CUR10 is required.
6 L131415 - If CUR13 is present, then at least one of CUR14 or CUR15 is required.
7 C1413 - If CUR14 is present, then CUR13 is required.
8 C1513 - If CUR15 is present, then CUR13 is required.
9 L161718 - If CUR16 is present, then at least one of CUR17 or CUR18 is required.
10 C1716 - If CUR17 is present, then CUR16 is required.
11 C1816 - If CUR18 is present, then CUR16 is required.
12 L192021 - If CUR19 is present, then at least one of CUR20 or CUR21 is required.
13 C2019 - If CUR20 is present, then CUR19 is required.
14 C2119 - If CUR21 is present, then CUR19 is required.

Notes: **This applies to all financial amounts in this transaction set.**

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
	CUR01	98	**Entity Identifier Code**	M	ID	2/3
			Code identifying an organizational entity, a physical location, property or an individual			
			Any valid X12 code value except mutually defined; 'ZZ'			
	CUR02	100	**Currency Code**	M	ID	3/3
			Code (Standard ISO) for country in whose currency the charges are specified			
Not Used	**CUR03**	280	**Exchange Rate**	O	R	4/10
			Value to be used as a multiplier conversion factor to convert monetary value from one currency to another			
Not Used	**CUR04**	98	**Entity Identifier Code**	O	ID	2/3
			Code identifying an organizational entity, a physical location, property or an individual			
Not Used	**CUR05**	100	**Currency Code**	O	ID	3/3
			Code (Standard ISO) for country in whose currency the charges are specified			
Not Used	**CUR06**	669	**Currency Market/Exchange Code**	O	ID	3/3
			Code identifying the market upon which the currency exchange rate is based			
Not Used	**CUR07**	374	**Date/Time Qualifier**	X	ID	3/3
			Code specifying type of date or time, or both date and time			
Not Used	**CUR08**	373	**Date**	O	DT	8/8
			Date expressed as CCYYMMDD			

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES
Not Used	CUR09	337	Time	O TM 4/8

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)

CUR10 through CUR21 provide for 4 additional sets of data elements 374, 373 and 337 which are not used by AIAG.

Segment: **SAC** Service, Promotion, Allowance, or Charge Information

Level: Detail -- Shipment

Loop: HL/SAC   **Repeat:** >1

Usage: Optional

Max Use: 1

Purpose: To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Syntax:
1. R0203 - At least one of SAC02 or SAC03 is required.
2. P0304 - If either SAC03 or SAC04 is present, then the other is required.
3. P0607 - If either SAC06 or SAC07 is present, then the other is required.
4. P0910 - If either SAC09 or SAC10 is present, then the other is required.
5. C1110 - If SAC11 is present, then SAC10 is required.
6. L130204 - If SAC13 is present, then at least one of SAC02 or SAC04 is required.
7. C1413 - If SAC14 is present, then SAC13 is required.
8. C1615 - If SAC16 is present, then SAC15 is required.

Semantic:
1. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
2. SAC05 is the total amount for the service, promotion, allowance, or charge.
3. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
4. SAC08 is the allowance or charge rate per unit.
5. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
6. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.
7. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.
8. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.
9. SAC16 is used to identify the language being used in SAC15.

Comments:
A. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
B. In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
SAC01	248	**Allowance or Charge Indicator**	M	ID	1/1
		Code which indicates an allowance or charge for the service specified			

CODE	DEFINITION
C	**Charge**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
SAC02	1300	**Service, Promotion, Allowance, or Charge Code**	X	ID	4/4
		Code identifying the service, promotion, allowance, or charge			

CODE	DEFINITION
D240	**Freight**
D500	**Handling**
F180	**Pallet**

Data Element Summary

REF. DES.	DATA ELE.	NAME			ATTRIBUTES		
		CODE **DEFINITION**					
		G760 **Set-up**					
		H550 **Surcharge**					
		I260 **Transportation Direct Billing**					
		I280 **Transportation Vendor Provided**					
Not Used	SAC03 559	**Agency Qualifier Code**			X	ID	2/2
		Code identifying the agency assigning the code values					
Not Used	SAC04 1301	**Agency Service, Promotion, Allowance, or Charge Code**			X	AN	1/10
		Agency maintained code identifying the service, promotion, allowance, or charge					
	SAC05 610	**Amount**			O	N2	1/15
		Monetary amount					
Not Used	SAC06 378	**Allowance/Charge Percent Qualifier**			X	ID	1/1
		Code indicating on what basis allowance or charge percent is calculated					
Not Used	SAC07 332	**Percent**			X	R	1/6
		Percent expressed as a percent					
Not Used	SAC08 118	**Rate**			O	R	1/9
		Rate expressed in the standard monetary denomination for the currency specified					
Not Used	SAC09 355	**Unit or Basis for Measurement Code**			X	ID	2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken					
Not Used	SAC10 380	**Quantity**			X	R	1/15
		Numeric value of quantity					
Not Used	SAC11 380	**Quantity**			O	R	1/15
		Numeric value of quantity					
	SAC12 331	**Allowance or Charge Method of Handling Code**			O	ID	2/2
		Code indicating method of handling for an allowance or charge					
		CODE **DEFINITION**					
		06 **Charge to be Paid by Customer**					
Not Used	SAC13 127	**Reference Identification**			X	AN	1/30
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier					
Not Used	SAC14 770	**Option Number**			O	AN	1/20
		A unique number identifying available promotion or allowance options when more than one is offered					
Not Used	SAC15 352	**Description**			X	AN	1/80
		A free-form description to clarify the related data elements and their content					
Not Used	SAC16 819	**Language Code**			O	ID	2/3
		Code designating the language used in text, from a standard code list maintained by the International Standards Organization (ISO 639)					

Segment: **V1**   **Vessel Identification**
    Level: Detail -- Shipment
    Loop: HL/V1   **Repeat:** >1
    Usage: Optional
Max Use: 1
  Purpose: To provide vessel details and voyage number

    Syntax: **1** R0102 - At least one of V101 or V102 is required.
            2 C0801 - If V108 is present, then V101 is required.
Semantic: **1** V103 is the code identifying the country in which the ship (vessel) is registered.
            2 V105 identifies the ocean carrier.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
V101	597	**Vessel Code**	**X**	**ID**	**1/8**
		Code identifying vessel			
V102	182	**Vessel Name**	**X**	**AN**	**2/28**
		Name of ship as documented in "Lloyd's Register of Ships"			
V103	26	**Country Code**	**O**	**ID**	**2/3**
		Code identifying the country			
V104	55	**Flight/Voyage Number**	**O**	**AN**	**2/10**
		Identifying designator for the particular flight or voyage on which the cargo travels			
V105	140	**Standard Carrier Alpha Code**	**O**	**ID**	**2/4**
		Standard Carrier Alpha Code			
V106	249	**Vessel Requirement Code**	**O**	**ID**	**1/1**
		Code specifying options for satisfying vessel requirements			
V107	854	**Vessel Type Code**	**O**	**ID**	**2/2**
		Code to determine type of vessel			
V108	897	**Vessel Code Qualifier**	**O**	**ID**	**1/1**
		Code specifying vessel code source			
V109	91	**Transportation Method/Type Code**	**O**	**ID**	**1/2**
		Code specifying the method or type of transportation for the shipment			

Segment: **R4**   **Port or Terminal**
Level: Detail -- Shipment
Loop: HL/V1
Usage: Optional
Max Use: >1
Purpose: Contractual or operational port or point relevant to the movement of the cargo

Syntax: **1** P0203 - If either R402 or R403 is present, then the other is required.
Comments: **A** R4 is required for each port to be identified.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
R401	**115**	**Port or Terminal Function Code**	**M**	**ID**	**1/1**
		Code defining function performed at the port or terminal with respect to a shipment			
R402	**309**	**Location Qualifier**	**X**	**ID**	**1/2**
		Code identifying type of location			
R403	**310**	**Location Identifier**	**X**	**AN**	**1/30**
		Code which identifies a specific location			
R404	**114**	**Port Name**	**O**	**AN**	**2/24**
		Free-form name for the place at which an offshore carrier originates or terminates (by transshipment or otherwise) its actual ocean carriage of property			
R405	**26**	**Country Code**	**O**	**ID**	**2/3**
		Code identifying the country			
R406	**174**	**Terminal Name**	**O**	**AN**	**2/30**
		Free-form field for terminal name			
R407	**113**	**Pier Number**	**O**	**AN**	**1/4**
		Identifying number for the pier			
R408	**156**	**State or Province Code**	**O**	**ID**	**2/2**
		Code (Standard State/Province) as defined by appropriate government agency			

Segment: **DTM** Date/Time Reference
Level: Detail -- Shipment
Loop: HL/V1
Usage: Optional
Max Use: >1
Purpose: To specify pertinent dates and times

Syntax: **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.

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
	DTM01	**374**	**Date/Time Qualifier**	M	ID	3/3

Code specifying type of date or time, or both date and time

One DTM segment with a code value of "011" is required.

CODE	DEFINITION
011	**Shipped**
017	**Estimated Delivery**

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Required	**DTM02**	**373**	**Date**	X	DT	8/8

Date expressed as CCYYMMDD

| **Required** | **DTM03** | **337** | **Time** | X | TM | 4/8 |

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)

| **Required** | **DTM04** | **623** | **Time Code** | O | ID | 2/2 |

Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow

Any valid X12 code value except mutually defined.

| **Not Used** | **DTM05** | **1250** | **Date Time Period Format Qualifier** | X | ID | 2/3 |

Code indicating the date format, time format, or date and time format

| **Not Used** | **DTM06** | **1251** | **Date Time Period** | X | AN | 1/35 |

Expression of a date, a time, or range of dates, times or dates and times

Segment: **HL**   **Hierarchical Level**

Level: Detail -- Order

Loop: HL **Repeat:** 200000

Usage: Mandatory

Max Use: 1

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

Set Notes: **1** 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: **A** 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.

B The HL segment defines a top-down/left-right ordered structure.

C 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.

D HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.

E 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.

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

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
HL01	**628**	**Hierarchical ID Number**	**M**	**AN**	**1/12**
		A unique number assigned by the sender to identify a particular data segment in a hierarchical structure			
		"1" is used for the shipment level HL segment. Increment by 1 for each subsequent HL segment within the transaction.			
HL02	**734**	**Hierarchical Parent ID Number**	**O**	**AN**	**1/12**
		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**
		Code defining the characteristic of a level in a hierarchical structure			

Required

CODE	DEFINITION
O	**Order**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
HL04	**736**	**Hierarchical Child Code**	**O**	**ID**	**1/1**
		Code indicating if there are hierarchical child data segments subordinate to the level being described			

Segment:	**LIN**	**Item Identification**
Level:	Detail -- Order	
Loop:	HL	
Usage:	Optional	
Max Use:	1	
Purpose:	To specify basic item identification data	

Syntax:	**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.
Semantic:	**1**	LIN01 is the line item identification
Comments:	**A**	See the Data Dictionary for a complete list of IDs.
	B	LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES		
Not Used	LIN01	350	**Assigned Identification**		O	AN	1/20
			Alphanumeric characters assigned for differentiation within a transaction set				
	LIN02	235	**Product/Service ID Qualifier**		M	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)				

CODE	DEFINITION
BP	**Buyer's Part Number**
	If a Buyer's Part Number (BP) is not available, then select a qualifier from the codes listed under the LIN04 to identify the item.

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES		
	LIN03	234	**Product/Service ID**		M	AN	1/48
			Identifying number for a product or service				
	LIN04	235	**Product/Service ID Qualifier**		X	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)				

CODE	DEFINITION
CH	**Country of Origin Code**
	SEE CODE SOURCE 5 IN X12 STANDARDS
DR	**Drawing Revision Number**
EC	**Engineering Change Level**
PO	**Purchase Order Number**

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES
		CODE	**DEFINITION**	
		RC	**Returnable Container Number**	
		VO	**Vendor's Order Number**	
		VP	**Vendor's (Seller's) Part Number**	
LIN05	**234**	**Product/Service ID**		X AN 1/48
		Identifying number for a product or service		
		LIN06 through LIN31 provide for 13 additional pairs of data elements 235 and 234.		

Segment: **SN1** Item Detail (Shipment)
Level: Detail -- Order
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To specify line-item detail relative to shipment

Syntax: **1** P0506 - If either SN105 or SN106 is present, then the other is required.
Semantic: **1** SN101 is the ship notice line-item identification.
Comments: **A** SN103 defines the unit of measurement for both SN102 and SN104.

Notes: **Used to show the net quantity being shipped, the unit of measure and cumulative year-to-date shipments if applicable.**

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	SN101	350	**Assigned Identification**	O	AN	1/20
			Alphanumeric characters assigned for differentiation within a transaction set			
	SN102	382	**Number of Units Shipped**	M	R	1/10
			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
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
			This must be the same Unit of Measure provided on the corresponding releasing document.			
	SN104	646	**Quantity Shipped to Date**	O	R	1/15
			Number of units shipped to date			
	SN105	330	**Quantity Ordered**	X	R	1/15
			Quantity ordered			
	SN106	355	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
Not Used	SN107	728	**Returnable Container Load Make-Up Code**	O	ID	1/2
			Code identifying the load make-up of the returnable containers in the shipment			
Not Used	SN108	668	**Line Item Status Code**	O	ID	2/2
			Code specifying the action taken by the seller on a line item requested by the buyer			

Segment: **PRF** Purchase Order Reference
Level: Detail -- Order
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To provide reference to a specific purchase order

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

<p align="center">Data Element Summary</p>

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
PRF01	**324**	**Purchase Order Number**	**M**	**AN**	**1/22**
		Identifying number for Purchase Order assigned by the orderer/purchaser			
		Use PO number provided in releasing documents (e.g., 830, 850, 862, 866).			
PRF02	**328**	**Release Number**	**O**	**AN**	**1/30**
		Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction			
PRF03 *Not Used*	**327**	**Change Order Sequence Number**	**O**	**AN**	**1/8**
		Number assigned by the orderer identifying a specific change or revision to a previously transmitted transaction set			
PRF04	**373**	**Date**	**O**	**DT**	**8/8**
		Date expressed as CCYYMMDD			
PRF05	**350**	**Assigned Identification**	**O**	**AN**	**1/20**
		Alphanumeric characters assigned for differentiation within a transaction set			
PRF06	**367**	**Contract Number**	**O**	**AN**	**1/30**
		Contract number			
PRF07 *Not Used*	**92**	**Purchase Order Type Code**	**O**	**ID**	**2/2**
		Code specifying the type of Purchase Order			

Segment: **REF** Reference Identification
Level: Detail -- Order
Loop: HL
Usage: Optional
Max Use: >1
Purpose: To specify identifying information

Syntax: **1** R0203 - At least one of REF02 or REF03 is required.
Semantic: **1** REF04 contains data relating to the value cited in REF02.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**
			Code qualifying the Reference Identification			

CODE	DEFINITION
BM	**Bill of Lading Number**
PK	**Packing List Number**

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Required	**REF02**	**127**	**Reference Identification**	**X**	**AN**	**1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	**REF03**	**352**	**Description**	**X**	**AN**	**1/80**
			A free-form description to clarify the related data elements and their content			
Not Used	**REF04**	**C040**	**Reference Identifier**	**O**		
			To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			

Segment: **CLD** Load Detail

Level: Detail -- Order

Loop: HL/CLD   **Repeat:** 200

Usage: Optional

Max Use: 1

Purpose: To specify the number of material loads shipped

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

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

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

Notes: **This segment is used by the supplier to inform the customer about the number of customer material loads shipped (e.g., pallets), and the quantity per load. The customer will use this information to prepare more tags and/or bar-coded labels to aid in moving material.**

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
CLD01	**622**	**Number of Loads**	**M**	**N0**	**1/5**
		Number of customer-defined loads shipped by the supplier			
CLD02	**382**	**Number of Units Shipped**	**M**	**R**	**1/10**
		Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set			
		Total quantity per container.			
CLD03	**103**	**Packaging Code**	**O**	**AN**	**3/5**
		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			
`Not Used` **CLD04**	**357**	**Size**	**X**	**R**	**1/8**
		Size of supplier units in pack			
`Not Used` **CLD05**	**355**	**Unit or Basis for Measurement Code**	**O**	**ID**	**2/2**
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			

Segment: **REF** Reference Identification
     Level: Detail -- Order
     Loop: HL/CLD
    Usage: Optional
  Max Use: 200
  Purpose: To specify identifying information

    Syntax: **1** R0203 - At least one of REF02 or REF03 is required.
 Semantic: **1** REF04 contains data relating to the value cited in REF02.

<div align="center">

Data Element Summary
</div>

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**
		Code qualifying the Reference Identification			
		CODE **DEFINITION**			
		LS **Bar-Coded Serial Number**			
REF02	**127**	**Reference Identification**	**X**	**AN**	**1/30**
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
REF03	**352**	**Description**	**X**	**AN**	**1/80**
		A free-form description to clarify the related data elements and their content			
Not Used	**REF04 C040**	**Reference Identifier**	**O**		
		To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			

Segment: **N1**   **Name**
Level: Detail -- Order
Loop: HL/N1   **Repeat:** 200
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code

Syntax: **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: **A** 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.

B N105 and N106 further define the type of entity in N101.

Notes: **At a minimum the supplier ship-from and customer ship-to locations must be identified. The ship-from is always in the shipment level, but the ship-to could be in the item level if shipping to multiple locations. Code value "SF" is used only by consolidators to identify original supplier ship-from code.**

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	N101	98	**Entity Identifier Code**	M	ID	2/3

Code identifying an organizational entity, a physical location, property or an individual

CODE	DEFINITION
SF	**Ship From**
ST	**Ship To**
SU	**Supplier/Manufacturer**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	N102	93	**Name**	X	AN	1/60

Free-form name

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	N103	66	**Identification Code Qualifier**	X	ID	1/2

Code designating the system/method of code structure used for Identification Code (67)

CODE	DEFINITION
1	**D-U-N-S Number, Dun & Bradstreet**
	SEE CODE SOURCE 16 IN X12 STANDARDS

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	N104	67	**Identification Code**	X	AN	2/80

Code identifying a party or other code

Suppress internal dashes and spaces.

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	N105	706	**Entity Relationship Code**	O	ID	2/2

Code describing entity relationship

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	N106	98	**Entity Identifier Code**	O	ID	2/3

Code identifying an organizational entity, a physical location, property or an individual

Segment: **REF** **Reference Identification**
Level: Detail -- Order
Loop: HL/N1
Usage: Optional
Max Use: 12
Purpose: To specify identifying information

Syntax: **1** R0203 - At least one of REF02 or REF03 is required.
Semantic: **1** REF04 contains data relating to the value cited in REF02.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**
			Code qualifying the Reference Identification			

CODE	DEFINITION
DK	**Dock Number**
LF	**Assembly Line Feed Location**
RL	**Reserve Assembly Line Feed Location**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**REF02**	**127**	**Reference Identification**	**X**	**AN**	**1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	**REF03**	**352**	**Description**	**X**	**AN**	**1/80**
			A free-form description to clarify the related data elements and their content			
Not Used	**REF04**	**C040**	**Reference Identifier**	**O**		
			To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			

Segment: **ETD** **Excess Transportation Detail**
Level: Detail -- Order
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To specify information relating to premium transportation

Syntax: **1** P0304 - If either ETD03 or ETD04 is present, then the other is required.
Semantic: **1** ETD03 qualifies the authorization number given in EDT04.

Notes: **This segment is required if the material is being shipped via premium transportation (other than normal mode).**

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	ETD01	626	**Excess Transportation Reason Code**	**M**	**ID**	**1/2**
			Code identifying the reason for shipment via premium transportation rather than the normal mode of transportation			
			Any valid X12 code value except mutually defined; 'ZZ'			
	ETD02	627	**Excess Transportation Responsibility Code**	**M**	**ID**	**1/1**
			Code identifying the organization responsible for paying the premium transportation costs			

CODE　　DEFINITION

A　　　**Customer Plant (Receiving Location)**

S　　　**Supplier Authority**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**ETD03**	128	**Reference Identification Qualifier**	**X**	**ID**	**2/3**
			Code qualifying the Reference Identification			

CODE　　DEFINITION

AE　　　**Authorization for Expense (AFE) Number**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**ETD04**	127	**Reference Identification**	**X**	**AN**	**1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	**ETD05**	743	**Returnable Container Freight Payment Responsibility Code**	**O**	**ID**	**1/2**
			Code specifying the responsibility for the return freight costs incurred when returnable containers are shipped in a premium transportation			

Segment: **SAC** Service, Promotion, Allowance, or Charge Information

Level: Detail -- Order

Loop: HL/SAC **Repeat:** >1

Usage: Optional

Max Use: 1

Purpose: To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Syntax: 1 R0203 - At least one of SAC02 or SAC03 is required.

2 P0304 - If either SAC03 or SAC04 is present, then the other is required.

3 P0607 - If either SAC06 or SAC07 is present, then the other is required.

4 P0910 - If either SAC09 or SAC10 is present, then the other is required.

5 C1110 - If SAC11 is present, then SAC10 is required.

6 L130204 - If SAC13 is present, then at least one of SAC02 or SAC04 is required.

7 C1413 - If SAC14 is present, then SAC13 is required.

8 C1615 - If SAC16 is present, then SAC15 is required.

Semantic: 1 If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.

2 SAC05 is the total amount for the service, promotion, allowance, or charge.

3 If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.

4 SAC08 is the allowance or charge rate per unit.

5 SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.

6 SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.

7 SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.

8 SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.

9 SAC16 is used to identify the language being used in SAC15.

Comments: A SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.

B In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
SAC01	**248**	**Allowance or Charge Indicator**	M	ID	1/1
		Code which indicates an allowance or charge for the service specified			

CODE	DEFINITION
A	**Allowance**
C	**Charge**
N	**No Allowance or Charge**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
SAC02	**1300**	**Service, Promotion, Allowance, or Charge Code**	X	ID	4/4
		Code identifying the service, promotion, allowance, or charge			
Not Used **SAC03**	**559**	**Agency Qualifier Code**	X	ID	2/2
		Code identifying the agency assigning the code values			

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	SAC04	1301	**Agency Service, Promotion, Allowance, or Charge Code**	X	AN	1/10
			Agency maintained code identifying the service, promotion, allowance, or charge			
	SAC05	610	**Amount**	O	N2	1/15
			Monetary amount			
	SAC06	378	**Allowance/Charge Percent Qualifier**	X	ID	1/1
			Code indicating on what basis allowance or charge percent is calculated			
Not Used	SAC07	332	**Percent**	X	R	1/6
			Percent expressed as a percent			
Not Used	SAC08	118	**Rate**	O	R	1/9
			Rate expressed in the standard monetary denomination for the currency specified			
Not Used	SAC09	355	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
Not Used	SAC10	380	**Quantity**	X	R	1/15
			Numeric value of quantity			
Not Used	SAC11	380	**Quantity**	O	R	1/15
			Numeric value of quantity			
	SAC12	331	**Allowance or Charge Method of Handling Code**	O	ID	2/2
			Code indicating method of handling for an allowance or charge			
Not Used	SAC13	127	**Reference Identification**	X	AN	1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	SAC14	770	**Option Number**	O	AN	1/20
			A unique number identifying available promotion or allowance options when more than one is offered			
Not Used	SAC15	352	**Description**	X	AN	1/80
			A free-form description to clarify the related data elements and their content			
Not Used	SAC16	819	**Language Code**	O	ID	2/3
			Code designating the language used in text, from a standard code list maintained by the International Standards Organization (ISO 639)			

Segment: **V1** **Vessel Identification**
Level: Detail -- Order
Loop: HL/V1 **Repeat:** >1
Usage: Optional
Max Use: 1
Purpose: To provide vessel details and voyage number

Syntax: **1** R0102 - At least one of V101 or V102 is required.
2 C0801 - If V108 is present, then V101 is required.

Semantic: **1** V103 is the code identifying the country in which the ship (vessel) is registered.
2 V105 identifies the ocean carrier.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
V101	597	**Vessel Code**	X	ID	1/8
		Code identifying vessel			
V102	182	**Vessel Name**	X	AN	2/28
		Name of ship as documented in "Lloyd's Register of Ships"			
V103	26	**Country Code**	O	ID	2/3
		Code identifying the country			
V104	55	**Flight/Voyage Number**	O	AN	2/10
		Identifying designator for the particular flight or voyage on which the cargo travels			
V105	140	**Standard Carrier Alpha Code**	O	ID	2/4
		Standard Carrier Alpha Code			
V106	249	**Vessel Requirement Code**	O	ID	1/1
		Code specifying options for satisfying vessel requirements			
V107	854	**Vessel Type Code**	O	ID	2/2
		Code to determine type of vessel			
V108	897	**Vessel Code Qualifier**	O	ID	1/1
		Code specifying vessel code source			
V109	91	**Transportation Method/Type Code**	O	ID	1/2
		Code specifying the method or type of transportation for the shipment			

Segment: R4   Port or Terminal

Level: Detail -- Order

Loop: HL/V1

Usage: Optional

Max Use: >1

Purpose: Contractual or operational port or point relevant to the movement of the cargo

Syntax: **1** P0203 - If either R402 or R403 is present, then the other is required.

Comments: **A** R4 is required for each port to be identified.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
R401	**115**	**Port or Terminal Function Code**	**M**	**ID**	**1/1**
		Code defining function performed at the port or terminal with respect to a shipment			
R402	**309**	**Location Qualifier**	**X**	**ID**	**1/2**
		Code identifying type of location			
R403	**310**	**Location Identifier**	**X**	**AN**	**1/30**
		Code which identifies a specific location			
R404	**114**	**Port Name**	**O**	**AN**	**2/24**
		Free-form name for the place at which an offshore carrier originates or terminates (by transshipment or otherwise) its actual ocean carriage of property			
R405	**26**	**Country Code**	**O**	**ID**	**2/3**
		Code identifying the country			
R406	**174**	**Terminal Name**	**O**	**AN**	**2/30**
		Free-form field for terminal name			
R407	**113**	**Pier Number**	**O**	**AN**	**1/4**
		Identifying number for the pier			
R408	**156**	**State or Province Code**	**O**	**ID**	**2/2**
		Code (Standard State/Province) as defined by appropriate government agency			

Segment: **DTM** Date/Time Reference

Level: Detail -- Order

Loop: HL/V1

Usage: Optional

Max Use: >1

Purpose: To specify pertinent dates and times

Syntax: **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.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
DTM01	374	**Date/Time Qualifier**	M	ID	3/3
		Code specifying type of date or time, or both date and time			
DTM02	373	**Date**	X	DT	8/8
		Date expressed as CCYYMMDD			
DTM03	337	**Time**	X	TM	4/8
		Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)			
DTM04	623	**Time Code**	O	ID	2/2
		Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow			
DTM05	1250	**Date Time Period Format Qualifier**	X	ID	2/3
		Code indicating the date format, time format, or date and time format			
DTM06	1251	**Date Time Period**	X	AN	1/35
		Expression of a date, a time, or range of dates, times or dates and times			

Segment: **HL** **Hierarchical Level**

Level: Detail -- Item

Loop: HL **Repeat:** 200000

Usage: Mandatory

Max Use: 1

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

Comments: **A** 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.

    B The HL segment defines a top-down/left-right ordered structure.

    C 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.

    D HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.

    E 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.

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

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
HL01	**628**	**Hierarchical ID Number**	**M**	**AN**	**1/12**

A unique number assigned by the sender to identify a particular data segment in a hierarchical structure

"1" is used for the shipment level HL segment. Increment by 1 for each subsequent HL segment within the transaction.

Required **HL02**	**734**	**Hierarchical Parent ID Number**	**O**	**AN**	**1/12**

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**

Code defining the characteristic of a level in a hierarchical structure

CODE	DEFINITION
I	**Item**

HL04	**736**	**Hierarchical Child Code**	**O**	**ID**	**1/1**

Code indicating if there are hierarchical child data segments subordinate to the level being described

Segment: **LIN**   **Item Identification**

Level: Detail -- Item
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To specify basic item identification data

Syntax:
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.

Semantic:
1. LIN01 is the line item identification

Comments:
A. See the Data Dictionary for a complete list of IDs.
B. 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.

Notes: **If used at order level, does not need to be repeated at item level.**

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	**LIN01**	350	**Assigned Identification**	**O**	**AN**	**1/20**
			Alphanumeric characters assigned for differentiation within a transaction set			
	LIN02	235	**Product/Service ID Qualifier**	**M**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			

CODE	DEFINITION
BP	**Buyer's Part Number** **If a Buyer's Part Number (BP) is not available then select a qualifier from the codes listed under the LIN04 to identify the item.**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	LIN03	234	**Product/Service ID**	**M**	**AN**	**1/48**
			Identifying number for a product or service			
	LIN04	235	**Product/Service ID Qualifier**	**X**	**ID**	**2/2**
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			

CODE	DEFINITION
CH	**Country of Origin Code** SEE CODE SOURCE 5 IN X12 STANDARDS
DR	**Drawing Revision Number**
EC	**Engineering Change Level**

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES
		CODE	**DEFINITION**	
		PO	**Purchase Order Number**	
		RC	**Returnable Container Number**	
		VO	**Vendor's Order Number**	
		VP	**Vendor's (Seller's) Part Number**	
LIN05	**234**	**Product/Service ID**		X AN 1/48

Identifying number for a product or service

LIN06 through LIN31 provide for 13 additional pairs of data elements 235 and 234.

Segment: **SN1** Item Detail (Shipment)
      Level: Detail -- Item
      Loop: HL
     Usage: Optional
 Max Use: 1
  Purpose: To specify line-item detail relative to shipment

    Syntax: **1** P0506 - If either SN105 or SN106 is present, then the other is required.
 Semantic: **1** SN101 is the ship notice line-item identification.
Comments: **A** SN103 defines the unit of measurement for both SN102 and SN104.

     Notes: **Used to show the net quantity being shipped, the unit of measure and cumulative year-to-date shipments if applicable.**

              If used at Order level, does not need to be repeated at item level.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	SN101	350	**Assigned Identification**	O	AN	1/20
			Alphanumeric characters assigned for differentiation within a transaction set			
	SN102	382	**Number of Units Shipped**	M	R	1/10
			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
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
			This should be the same Unit of Measure provided on the corresponding releasing document.			
			Any valid X12 code value except mutually defined; 'ZZ'			
	SN104	646	**Quantity Shipped to Date**	O	R	1/15
			Number of units shipped to date			
Not Used	SN105	330	**Quantity Ordered**	X	R	1/15
			Quantity ordered			
	SN106	355	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
Not Used	SN107	728	**Returnable Container Load Make-Up Code**	O	ID	1/2
			Code identifying the load make-up of the returnable containers in the shipment			
Not Used	SN108	668	**Line Item Status Code**	O	ID	2/2
			Code specifying the action taken by the seller on a line item requested by the buyer			

Segment: **PRF** Purchase Order Reference
Level: Detail -- Item
Loop: HL
Usage: Optional
Max Use: 1
Purpose: To provide reference to a specific purchase order

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

Notes: **If used at Order level, does not need to be repeated at item level.**

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
PRF01	**324**	**Purchase Order Number**	**M**	**AN**	**1/22**
		Identifying number for Purchase Order assigned by the orderer/purchaser			
		Use PO number provided in releasing documents (e.g., 830, 850, 862, 866).			
PRF02	**328**	**Release Number**	**O**	**AN**	**1/30**
		Number identifying a release against a Purchase Order previously placed by the parties involved in the transaction			
Not Used	**PRF03**	**327**	**Change Order Sequence Number**	**O**	**AN**	**1/8**
		Number assigned by the orderer identifying a specific change or revision to a previously transmitted transaction set			
PRF04	**373**	**Date**	**O**	**DT**	**8/8**
		Date expressed as CCYYMMDD			
PRF05	**350**	**Assigned Identification**	**O**	**AN**	**1/20**
		Alphanumeric characters assigned for differentiation within a transaction set			
PRF06	**367**	**Contract Number**	**O**	**AN**	**1/30**
		Contract number			
Not Used	**PRF07**	**92**	**Purchase Order Type Code**	**O**	**ID**	**2/2**
		Code specifying the type of Purchase Order			

Segment: **MEA** Measurements

Level: Detail -- Item

Loop: HL

Usage: Optional

Max Use: 40

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

Syntax: **1** R03050608 - At least one of MEA03, MEA05, MEA06 or MEA08 is required.

2 C0504 - If MEA05 is present, then MEA04 is required.

3 C0604 - If MEA06 is present, then MEA04 is required.

4 L07030506 - If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.

5 E0803 - Only one of MEA08 or MEA03 may be present.

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

Comments: **A** When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
MEA01	737	**Measurement Reference ID Code**	O	ID	2/2
		Code identifying the broad category to which a measurement applies			

CODE	DEFINITION
PD	**Physical Dimensions**

MEA02	738	**Measurement Qualifier**	O	ID	1/3
		Code identifying a specific product or process characteristic to which a measurement applies			

CODE	DEFINITION
LN	**Length**
TH	**Thickness**
WD	**Width**
WT	**Weight**

Required **MEA03**	739	**Measurement Value**	X	R	1/20
		The value of the measurement			
Required **MEA04**	355	**Unit or Basis for Measurement Code**	X	ID	2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			

MEA04 is a composite data element, C001, which contains 15 simple data elements. AIAG only utilizes the first component of the composite, data element 355. This implementation guideline reflects that decision by substituting 355 for C001, which is syntactically correct. See chapter 3 entitled "Data Formatting" for further explanation of Composite Data Structures.

Any valid X12 code value except mutually defined; 'ZZ'

Not Used **MEA05**	740	**Range Minimum**	X	R	1/20
		The value specifying the minimum of the measurement range			

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Not Used	**MEA06**	**741**	**Range Maximum**	X	R	1/20
			The value specifying the maximum of the measurement range			
Not Used	**MEA07**	**935**	**Measurement Significance Code**	O	ID	2/2
			Code used to benchmark, qualify or further define a measurement value			
Not Used	**MEA08**	**936**	**Measurement Attribute Code**	X	ID	2/2
			Code used to express an attribute response when a numeric measurement value cannot be determined			
Not Used	**MEA09**	**752**	**Surface/Layer/Position Code**	O	ID	2/2
			Code indicating the product surface, layer or position that is being described			
Not Used	**MEA10**	**1373**	**Measurement Method or Device**	O	ID	2/4
			The method or device used to record the measurement			

Segment: **REF** Reference Identification

Level: Detail -- Item

Loop: HL

Usage: Optional

Max Use: >1

Purpose: To specify identifying information

Syntax: **1** R0203 - At least one of REF02 or REF03 is required.

Semantic: **1** REF04 contains data relating to the value cited in REF02.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	REF01	128	**Reference Identification Qualifier**	M	ID	2/3
			Code qualifying the Reference Identification			
			For primary metals code value "HC" and "LS" are required.			

CODE	DEFINITION
DK	**Dock Number**
HC	**Heat Code**
JS	**Job Sequence Number**
LA	**Shipping Label Serial Number**
LF	**Assembly Line Feed Location**
LS	**Bar-Coded Serial Number**
LT	**Lot Number**
SE	**Serial Number**
VT	**Motor Vehicle ID Number**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	REF02	127	**Reference Identification**	X	AN	1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	REF03	352	**Description**	X	AN	1/80
			A free-form description to clarify the related data elements and their content			
Not Used	REF04	C040	**Reference Identifier**	O		
			To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			

Segment:	**CLD** **Load Detail**
Level:	Detail -- Item
Loop:	HL/CLD **Repeat:** 200
Usage:	Optional
Max Use:	1
Purpose:	To specify the number of material loads shipped

Syntax:	**1**	C0504 - If CLD05 is present, then CLD04 is required.
Semantic:	**1**	CLD05 is used to dimension the value given in CLD04.
Comments:	**A**	The CLD data segment may be used to provide information to aid in the preparation of move tags and/or bar coded labels.

Notes: **This segment is used by the supplier to inform the customer about the number of customer material loads shipped (e.g., pallets), and the quantity per load. The customer will use this information to prepare move tags and/or bar-coded labels to aid in moving material.**

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
CLD01	**622**	**Number of Loads**	**M**	**N0**	**1/5**
		Number of customer-defined loads shipped by the supplier			
CLD02	**382**	**Number of Units Shipped**	**M**	**R**	**1/10**
		Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set			
		Total quantity per container.			
CLD03	**103**	**Packaging Code**	**O**	**AN**	**3/5**
		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			
		Any valid X12 code value except mutually defined			
CLD04	**357**	**Size**	**X**	**R**	**1/8**
		Size of supplier units in pack			
CLD05	**355**	**Unit or Basis for Measurement Code**	**O**	**ID**	**2/2**
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
		Any valid X12 code value except mutually defined; 'ZZ'			

Segment: **REF** Reference Identification

Level: Detail -- Item

Loop: HL/CLD

Usage: Optional

Max Use: 200

Purpose: To specify identifying information

Syntax: 1 R0203 - At least one of REF02 or REF03 is required.

Semantic: 1 REF04 contains data relating to the value cited in REF02.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	REF01	**128**	**Reference Identification Qualifier**	**M**	**ID**	**2/3**
			Code qualifying the Reference Identification			

CODE — DEFINITION

	CR	**Customer Reference Number**
	LS	**Bar-Coded Serial Number**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**REF02**	**127**	**Reference Identification**	**X**	**AN**	**1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used	**REF03**	**352**	**Description**	**X**	**AN**	**1/80**
			A free-form description to clarify the related data elements and their content			
Not Used	**REF04**	**C040**	**Reference Identifier**	**O**		
			To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			

Segment: DTM Date/Time Reference

Level: Detail -- Item

Loop: HL

Usage: Optional

Max Use: 10

Purpose: To specify pertinent dates and times

Syntax: **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.

Data Element Summary

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
	DTM01	374	**Date/Time Qualifier**	M	ID	3/3

Code specifying type of date or time, or both date and time

CODE	DEFINITION
011	**Shipped**

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
Required	DTM02	373	**Date**	X	DT	8/8

Date expressed as CCYYMMDD

Required	DTM03	337	**Time**	X	TM	4/8

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)

Required	DTM04	623	**Time Code**	O	ID	2/2

Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow

Not Used	DTM05	1250	**Date Time Period Format Qualifier**	X	ID	2/3

Code indicating the date format, time format, or date and time format

Not Used	DTM06	1251	**Date Time Period**	X	AN	1/35

Expression of a date, a time, or range of dates, times or dates and times

Segment: **N1** **Name**
Level: Detail -- Item
Loop: HL/N1 **Repeat:** 200
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code

Syntax: **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: **A** 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.

B N105 and N106 further define the type of entity in N101.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	N101	**98**	**Entity Identifier Code**	**M**	**ID**	**2/3**

Code identifying an organizational entity, a physical location, property or an individual

CODE	DEFINITION
SF	**Ship From**
ST	**Ship To**
SU	**Supplier/Manufacturer**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	N102	**93**	**Name**	**X**	**AN**	**1/60**

Free-form name

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**N103**	**66**	**Identification Code Qualifier**	**X**	**ID**	**1/2**

Code designating the system/method of code structure used for Identification Code (67)

CODE	DEFINITION
1	**D-U-N-S Number, Dun & Bradstreet**
	SEE CODE SOURCE 16 IN X12 STANDARDS

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	**N104**	**67**	**Identification Code**	**X**	**AN**	**2/80**

Code identifying a party or other code

Suppress internal dashes and spaces.

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	**N105**	**706**	**Entity Relationship Code**	**O**	**ID**	**2/2**

Code describing entity relationship

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Not Used	**N106**	**98**	**Entity Identifier Code**	**O**	**ID**	**2/3**

Code identifying an organizational entity, a physical location, property or an individual

Segment: **REF** Reference Identification
Level: Detail -- Item
Loop: HL/N1
Usage: Optional
Max Use: 12
Purpose: To specify identifying information

Syntax: **1** R0203 - At least one of REF02 or REF03 is required.
Semantic: **1** REF04 contains data relating to the value cited in REF02.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	REF01	128	**Reference Identification Qualifier**	M	ID	2/3

Code qualifying the Reference Identification

CODE	DEFINITION
DK	**Dock Number**
LF	**Assembly Line Feed Location**
RL	**Reserve Assembly Line Feed Location**

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
Required	REF02	127	**Reference Identification**	X	AN	1/30

Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Not Used	REF03	352	**Description**	X	AN	1/80

A free-form description to clarify the related data elements and their content

Not Used	REF04	C040	**Reference Identifier**	O	

To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier

Segment: ETD Excess Transportation Detail

Level: Detail -- Item

Loop: HL

Usage: Optional

Max Use: 1

Purpose: To specify information relating to premium transportation

Syntax: **1** P0304 - If either ETD03 or ETD04 is present, then the other is required.

Semantic: **1** ETD03 qualifies the authorization number given in EDT04.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
ETD01	626	**Excess Transportation Reason Code**	M	ID	1/2
		Code identifying the reason for shipment via premium transportation rather than the normal mode of transportation			
		Any valid X12 code value except mutually defined; 'ZZ'			
ETD02	627	**Excess Transportation Responsibility Code**	M	ID	1/1
		Code identifying the organization responsible for paying the premium transportation costs			

CODE	DEFINITION
A	**Customer Plant (Receiving Location)**
S	**Supplier Authority**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
ETD03	128	**Reference Identification Qualifier**	X	ID	2/3
		Code qualifying the Reference Identification			

CODE	DEFINITION
AE	**Authorization for Expense (AFE) Number**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
ETD04	127	**Reference Identification**	X	AN	1/30
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
Not Used ETD05	743	**Returnable Container Freight Payment Responsibility Code**	O	ID	1/2
		Code specifying the responsibility for the return freight costs incurred when returnable containers are shipped in a premium transportation			

Segment: **SAC** Service, Promotion, Allowance, or Charge Information
Level: Detail -- Item
Loop: HL/SAC   **Repeat:** >1
Usage: Optional
Max Use: 1
Purpose: To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

Syntax: **1** R0203 - At least one of SAC02 or SAC03 is required.
2 P0304 - If either SAC03 or SAC04 is present, then the other is required.
3 P0607 - If either SAC06 or SAC07 is present, then the other is required.
4 P0910 - If either SAC09 or SAC10 is present, then the other is required.
5 C1110 - If SAC11 is present, then SAC10 is required.
6 L130204 - If SAC13 is present, then at least one of SAC02 or SAC04 is required.
7 C1413 - If SAC14 is present, then SAC13 is required.
8 C1615 - If SAC16 is present, then SAC15 is required.

Semantic: **1** If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
2 SAC05 is the total amount for the service, promotion, allowance, or charge.
3 If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
4 SAC08 is the allowance or charge rate per unit.
5 SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
6 SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.
7 SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used.
8 SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion.
9 SAC16 is used to identify the language being used in SAC15.

Comments: **A** SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
B In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
SAC01	248	**Allowance or Charge Indicator**	M	ID	1/1
		Code which indicates an allowance or charge for the service specified			

CODE	DEFINITION
C	**Charge**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
SAC02	1300	**Service, Promotion, Allowance, or Charge Code**	X	ID	4/4
		Code identifying the service, promotion, allowance, or charge			

CODE	DEFINITION
D240	**Freight**
D500	**Handling**
F180	**Pallet**

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	

			CODE	**DEFINITION**			
			G760	**Set-up**			
			H550	**Surcharge**			
			I260	**Transportation Direct Billing**			
			I280	**Transportation Vendor Provided**			

Not Used	SAC03	559	**Agency Qualifier Code**	X	ID	2/2

Code identifying the agency assigning the code values

| Not Used | SAC04 | 1301 | **Agency Service, Promotion, Allowance, or Charge Code** | X | AN | 1/10 |

Agency maintained code identifying the service, promotion, allowance, or charge

| | SAC05 | 610 | **Amount** | O | N2 | 1/15 |

Monetary amount

| Not Used | SAC06 | 378 | **Allowance/Charge Percent Qualifier** | X | ID | 1/1 |

Code indicating on what basis allowance or charge percent is calculated

| Not Used | SAC07 | 332 | **Percent** | X | R | 1/6 |

Percent expressed as a percent

| Not Used | SAC08 | 118 | **Rate** | O | R | 1/9 |

Rate expressed in the standard monetary denomination for the currency specified

| Not Used | SAC09 | 355 | **Unit or Basis for Measurement Code** | X | ID | 2/2 |

Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

| Not Used | SAC10 | 380 | **Quantity** | X | R | 1/15 |

Numeric value of quantity

| Not Used | SAC11 | 380 | **Quantity** | O | R | 1/15 |

Numeric value of quantity

| | SAC12 | 331 | **Allowance or Charge Method of Handling Code** | O | ID | 2/2 |

Code indicating method of handling for an allowance or charge

CODE	**DEFINITION**
06	**Charge to be Paid by Customer**

| Not Used | SAC13 | 127 | **Reference Identification** | X | AN | 1/30 |

Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

| Not Used | SAC14 | 770 | **Option Number** | O | AN | 1/20 |

A unique number identifying available promotion or allowance options when more than one is offered

| Not Used | SAC15 | 352 | **Description** | X | AN | 1/80 |

A free-form description to clarify the related data elements and their content

| Not Used | SAC16 | 819 | **Language Code** | O | ID | 2/3 |

Code designating the language used in text, from a standard code list maintained by the International Standards Organization (ISO 639)

Segment: **V1**　**Vessel Identification**

Level: Detail -- Item

Loop: HL/V1　**Repeat:** >1

Usage: Optional

Max Use: 1

Purpose: To provide vessel details and voyage number

Syntax:　**1** R0102 - At least one of V101 or V102 is required.

　　　　　2 C0801 - If V108 is present, then V101 is required.

Semantic:　**1** V103 is the code identifying the country in which the ship (vessel) is registered.

　　　　　2 V105 identifies the ocean carrier.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
V101	597	**Vessel Code**	X	ID	1/8
		Code identifying vessel			
V102	182	**Vessel Name**	X	AN	2/28
		Name of ship as documented in "Lloyd's Register of Ships"			
V103	26	**Country Code**	O	ID	2/3
		Code identifying the country			
V104	55	**Flight/Voyage Number**	O	AN	2/10
		Identifying designator for the particular flight or voyage on which the cargo travels			
V105	140	**Standard Carrier Alpha Code**	O	ID	2/4
		Standard Carrier Alpha Code			
V106	249	**Vessel Requirement Code**	O	ID	1/1
		Code specifying options for satisfying vessel requirements			
V107	854	**Vessel Type Code**	O	ID	2/2
		Code to determine type of vessel			
V108	897	**Vessel Code Qualifier**	O	ID	1/1
		Code specifying vessel code source			
V109	91	**Transportation Method/Type Code**	O	ID	1/2
		Code specifying the method or type of transportation for the shipment			

Segment: **R4**   **Port or Terminal**
     Level: Detail -- Item
     Loop: HL/V1
     Usage: Optional
  Max Use: >1
   Purpose: Contractual or operational port or point relevant to the movement of the cargo

    Syntax: **1** P0203 - If either R402 or R403 is present, then the other is required.
Comments: **A** R4 is required for each port to be identified.

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES		
R401	**115**	**Port or Terminal Function Code**	**M**	**ID**	**1/1**
		Code defining function performed at the port or terminal with respect to a shipment			
R402	**309**	**Location Qualifier**	**X**	**ID**	**1/2**
		Code identifying type of location			
R403	**310**	**Location Identifier**	**X**	**AN**	**1/30**
		Code which identifies a specific location			
R404	**114**	**Port Name**	**O**	**AN**	**2/24**
		Free-form name for the place at which an offshore carrier originates or terminates (by transshipment or otherwise) its actual ocean carriage of property			
R405	**26**	**Country Code**	**O**	**ID**	**2/3**
		Code identifying the country			
R406	**174**	**Terminal Name**	**O**	**AN**	**2/30**
		Free-form field for terminal name			
R407	**113**	**Pier Number**	**O**	**AN**	**1/4**
		Identifying number for the pier			
R408	**156**	**State or Province Code**	**O**	**ID**	**2/2**
		Code (Standard State/Province) as defined by appropriate government agency			

Segment: **DTM** Date/Time Reference

Level: Detail -- Item

Loop: HL/V1

Usage: Optional

Max Use: >1

Purpose: To specify pertinent dates and times

Syntax: **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.

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
DTM01	**374**	**Date/Time Qualifier**	M	ID	3/3
		Code specifying type of date or time, or both date and time			
DTM02	**373**	**Date**	X	DT	8/8
		Date expressed as CCYYMMDD			
DTM03	**337**	**Time**	X	TM	4/8
		Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)			
DTM04	**623**	**Time Code**	O	ID	2/2
		Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow			
DTM05	**1250**	**Date Time Period Format Qualifier**	X	ID	2/3
		Code indicating the date format, time format, or date and time format			
DTM06	**1251**	**Date Time Period**	X	AN	1/35
		Expression of a date, a time, or range of dates, times or dates and times			

Segment: **CTT** Transaction Totals
Level: Summary
Loop: ____
Usage: Optional
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set

Syntax: **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: **A** This segment is intended to provide hash totals to validate transaction completeness and correctness.

Data Element Summary

	REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
	CTT01	**354**	**Number of Line Items**	M	N0	1/6
			Total number of line items in the transaction set			
			Total number of HL segments			
	CTT02	**347**	**Hash Total**	O	R	1/10
			Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element.			
			Example:			
			-.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. ------- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field.			
			Hash total of quantity shipped (SN102)			
Not Used	**CTT03**	**81**	**Weight**	X	R	1/10
			Numeric value of weight			
Not Used	**CTT04**	**355**	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
Not Used	**CTT05**	**183**	**Volume**	X	R	1/8
			Value of volumetric measure			
Not Used	**CTT06**	**355**	**Unit or Basis for Measurement Code**	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
Not Used	**CTT07**	**352**	**Description**	O	AN	1/80
			A free-form description to clarify the related data elements and their content			

Segment: **SE**　Transaction Set Trailer

　　Level: Summary

　　Loop: ____

　Usage: Mandatory

Max Use: 1

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

Comments: **A** SE is the last segment of each transaction set.

　Notes: **The Transaction Set Control Number value in this trailer must match the same element value in the Transaction Set Header (ST02).**

Data Element Summary

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
SE01	**96**	**Number of Included Segments**	**M**	**N0**	**1/10**
		Total number of segments included in a transaction set including ST and SE segments			
SE02	**329**	**Transaction Set Control Number**	**M**	**AN**	**4/9**
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set			
		Same as ST02			