Implementation Guide for EDI Conventions

Advanced Shipping Notice/Manifest Transaction Set (856)

AIAG Version 3030
ANSI ASC X12

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Metaldyne – EDI / Supply Chain Integration Department
Email: edisupport@metaldyne.com

Document Change Log

Version	Date	Description
1.00	March 1, 2006	Document issued.
1.01	December 15, 2006	Changed the Max Use on the CLD Segment to 200.
1.02	April 3, 2007	Added "An Asahi Tech Company" to the Metaldyne Title.
1.03	May 8, 2007	Specified that the TD503 (SCAC Code) and TD303 (Truck Number) are required.
1.04	December 10, 2007	Add ISA ID for Metaldyne-Ramos in the "Metaldyne ISA and GS ID Information" chart.
1.05	February 26, 2010	Removed "An Asahi Tech Company" from the Metaldyne title. Removed some locations in the "Metaldyne ISA and GS ID Information" chart.
1.06	July 7, 2010	Updated the "Metaldyne ISA and GS ID Information" chart.
1.07	March 1, 2015	Added "An MPG Company" to the Metaldyne Title.

Metaldyne's EDI documents are exchanged using the data messaging services of Covisint, a subsidiary of Compuware Corporation. You will have to approve the Trading Partner Relationship we have created in Covisint before EDI documents can be exchanged. Please set up relationships for all Metaldyne locations as defined on the following pages.

Segment: **ISA** – Interchange Control Header.

Level: Header

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

Examples: ISA*00* *00* *01*201547189 *01*118733062 *060218*0943*U*00200*000000368*0*P*<

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
ISA01	I01	Authorization Information Qualifier	M ID 2/2	Yes	00 = No authorization information included
ISA02	I02	Authorization Information	M AN 10/10	Yes	If ISA01 = 00 use ten spaces
ISA03	I03	Security Information Qualifier	M ID 2/2	Yes	00 = No authorization present
ISA04	I04	Security Information	M ID 10/10	Yes	If ISA04 = 00 use ten spaces.
ISA05	I05	Interchange ID Qualifier	M ID 2/2	Yes	01 = Duns Number 12 = Phone Number ZZ = Mutually Defined
ISA06	I06	Interchange Sender ID	M AN 15/15	Yes	
ISA07	I05	Interchange ID Qualifier	M ID 2/2	Yes	01 = Duns Number
ISA08	I07	Interchange Receiver ID	M AN 15/15	Yes	See next page for Metaldyne IDs
ISA09	I08	Interchange Date	M DT /6/6	Yes	Creation Date (YYMMDD)
ISA10	I09	Interchange Time	M TM 4/4	Yes	Creation Time (HHMM)
ISA11	I10	Interchange Control Standards Identifier	M ID 1/1	Yes	U = USA
ISA12	I11	Interchange Control Version Number	M ID 5/5	Yes	Use 00303

ISA13	I12	Interchange Control Number	M N0 9/9	Yes	Must be the same as IEA02. A sequential number starting with 1 and incremented by 1 for each ISA between sender and receiver
ISA14	I13	Acknowledgment Requested	M ID 1/1	Yes	0 = No Acknowledgment required 1= Acknowledgment required
ISA15	I14	Usage Indicator	M ID 1/1	Yes	P = Production data
ISA16	I15	Component Element Separator	M AN 1/1	Yes	

Segment: **GS** Functional Group Header

Level: Header

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

Examples: GS*SH*201547189*118733062*060218*0943*368*X*003030

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
GS01	479	Functional Identifier Code	M ID 2/2	Yes	SH=Advance Shipping Notice
GS02	142	Application Sender's Code	M AN 2/15	Yes	
GS03	124	Application Receiver's Code	M AN 2/15	Yes	See next page for Metaldyne IDs
GS04	029	Date	M DT 6/6	Yes	Date created. (YYMMDD)
GS05	030	Time	M TM 4/4	Yes	Time created (HHMM)
GS06	028	Group Control Number	M N0 1/9	Yes	This is a sequential number starting with 1 and incremented by 1 for each subsequent GS segment.
GS07	455	Responsible Agency Code	M ID 1/2	Yes	"X" = ASC X12
GS08	480	Version / Release / Industry Identifier Code	M AN 1/12	Yes	Use 003030

Metaldyne ISA and GS ID Information

Metaldyne Location	ISA ID	GS ID	EDI VAN
Driveline & BSM Products			
Metaldyne Bluffton 131 West Harvest Road Bluffton, Indiana 46714	01: 092041409	092041409	Covisint
Metaldyne Fremont 307 S. Tillotson Fremont, IN 46737	01: 005174933	005174933	Covisint
Metaldyne Twinsburg 8001 Bavaria Road Twinsburg,OH 44087	01: 785126632	785126632	Covisint
Sintered Products			
Metaldyne North Vernon 3100 North Highway #3 North Vernon, IN, 47265	01:840551634	840551634	Covisint
Metaldyne Ridgway 1149 Rocky Road Ridgway, PA 15853	01:063654768	063654768	Covisint
Metaldyne St. Marys 197 West Creek Road St. Marys PA 15857	01:079365222	079365222	Covisint
Metaldyne Warren 30500 Ryan Rd Warren, Mi 48092	01:884079021	884079021	Covisint
Vibration Control Products			
Metaldyne Litchfield 917 Anderson Road Litchfield, MI 49252	01:118733062	045245149	Covisint

Introduction.

Metaldyne requires its suppliers to be capable of EDI communications to maintain a competitive position in the automotive industry.

As of the release of this document Metaldyne is requiring suppliers of direct raw materials to provide Metaldyne with a timely ASN. Other Metaldyne suppliers will be notified of the need to comply with EDI requirements on a selected basis.

This document presents the Advanced Shipping Notification (document 856) transaction set as implemented at Metaldyne. This specification closely follows the AIAG 3030 specification for the Advanced Shipping Notification (856).

ASN Structure.

An ASN will consist of five levels of hierarchical structures containing:

1. Header
2. Shipment
3. Tare
4. Item
5. Summary

An ASN will contain one Header level and one Shipment level and as many Tare and Item levels as are required to fully describe the materials shipped. There must be one Summary level at the end of the document.

Only the segments shown in this document at their respective hierarchical levels are used in an ASN to Metaldyne. All other segment types not shown are not used and can be omitted.

Hierarchical Structure.

The hierarchical structure and looping structure used in forming an ASN is well documented in the AIAG Implementation Guide for Electronic Data Interchange manuals in the section titled *Usage Conventions*. This description should be referred to if you have any questions. No further reference will be made about this topic that will change the limitations and conventions presented therein.

Segment Descriptions.

The description of each segment is divided into two parts, as follows.

The **first part** provides a general description of the segment. The *Segment, Level, Loop, Usage, Max Usage,* and *Purpose* sections are a generic description of the segment. The *Notes* section provides information about the segment and **may contain information specific to Metaldyne's usage of the segment**. The *Example* section shows a typical example of the segment.

In the **second part** each of the elements in each segment is examined in detail. *Review these sections carefully because element sizes may be smaller than expected* or elements are not used at Metaldyne.

The *Elem ID, Elem #* and *Element Name* elements sections are simply the standard element descriptors from the AIAG manual for 856s.

The *Attributes* section describes whether the element is **M**andatory or **O**ptional, the type of element, and the minimum and maximum element length. Note that the maximum length of some elements will follow AIAG specifications length allowed in the ASN. However, Metaldyne may only use part of the element length allowed by the AIAG specifications. The maximum length used by Metaldyne is shown as the maximum length.

The *MD Use* section indicates whether Metaldyne uses this element.

The *Comments* section provides important information as to how each element is to be interpreted. If additional information about this element is required it will appear following the second part.

Note that those elements listed as *not used* in the AIAG definition are not shown.

After all of the segments have been described, an example of a complete ASN will be provided.

Header Level.

The Header level specifies information which pertains to the entire ASN. The segments at this level follow the standard EDI interpretation for an ASN.

The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
ST	**Transaction Set Header**	**Yes**
BSN	**Beginning Segment for Ship Notice**	**Yes**
NTE	Note/Special Instructions	No
DTM	**Date/Time Reference**	**Yes**

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.

Notes: The transaction set control number (ST02) in this header must match the transaction set control number (SE02) in the transaction set trailer (SE). This segment is mandatory.

Examples: ST*856*1

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
ST01	143	Transaction Set Identifier Code	M ID 3/3	Yes	Use 856 = Ship Notification Manifest.
ST02	329	Transaction Set Control Number	M AN 4/9	Yes	A unique control number assigned to each transaction set within a functional group, incrementing by 1 for each subsequent transaction set. Same for SE02 segment.

Segment: **BSN** - Beginning segment for shipping notice.

Level: Header

Loop: -

Usage: Mandatory

Max Use: 1

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

Notes:

Examples: BSN*00*2267080602*060218*0930

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
BSN01	353	Transaction Set Purpose Code	M ID 2/2	Yes	"00" = Original
BSN02	396	Shipment Identification	M AN 2/12	Yes	A unique supplier-assigned Shipment Identification (SID) number that is not to be repeated within a one-year period. **NOTE**: Although the standard allows for a 30-character SID number, Metaldyne allows a maximum of 12 characters.
BSN03	373	Date	M DT 6/6	Yes	Local ASN creation date (YYMMDD).
BSN04	337	Time	M TM 4/4	Yes	Local ASN creation time (HHMM) 24 hour clock.

Segment: **DTM** - Date/Time Reference

Level: Header

Loop: -

Usage: Mandatory

Max Use: 10

Purpose: To specify pertinent dates and times.

Notes: One DTM segment in the header area is mandatory to provide shipment date and time. Use the date and time that the shipment leaves supplier's premises, with the supplier's appropriate local Time Code qualifier.

Examples: DTM*011*060218*0930

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
DTM01	374	Date/Time Qualifier	M ID 3/3	Yes	"011" = Local date and time shipment leaves supplier's premises.
DTM02	373	Date	M DT 6/6	Yes	Required. (YYMMDD)
DTM03	337	Time	M TM 4/4	Yes	Required. (HHMM) 24 hour clock.

Shipment Level.

The **Shipment** hierarchical level specifies those segments, shown as **bold**, which pertain to the entire shipment. The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
HL	**Hierarchical Level**	**Yes**
MEA	**Measurements**	**Yes**
TD1	Carrier Details (Quantity & Weights)	No
TD5	**Carrier Details (Routing Sequence/Transit Time)**	**Yes**
TD3	**Carrier Details (Equipment)**	**Yes**
TD4	Carrier Details (Special Handling/Hazardous Materials)	No
REF	**Reference Numbers**	**Yes**
FOB	F.O.B. Related Instructions	No
N1	**Name**	**Yes**
N2	Additional Name Information	No
REF	Reference Numbers	No
ETD	Excess Transportation Detail	No
CUR	Currency	No
ITA	Allowance, Charge or Service	No

Segment: **HL** - Hierarchical Level

Level: Shipment

Loop: HL Repeat 200000

Usage: Mandatory

Max Use: 1

Purpose: To identify dependencies among the contents of hierarchically related groups of data segments.

Notes: 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 packing data to line item.

Examples: HL*1**S

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
HL01	628	Hierarchical ID Number	M AN 1/12	Yes	"1" for the initial HL segment and incremented by 1 in each subsequent HL segment within the transaction set.
HL02	734	Hierarchical Parent ID Number	O AN 1/2	No	
HL03	735	Hierarchical Level Code	M ID 1/2	Yes	"S" = Shipment level.
HL04	736	Hierarchical Child Code	O ID 1/1	No	

Segment: **MEA** - Measurements

Level: Shipment

Loop: HL

Usage: Mandatory

Max Use: 1

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

Notes: One MEA segment for gross weight and one MEA segment for net weight are required at the **Shipment** level.

Examples: MEA*PD*G*40000*LB
MEA*PD*N*39000*LB

Elem ID	Elem #	Element Name	Attribute	MD Use	Comments
MEA01	737	Measurement Reference ID Code	M ID 2/2	Yes	"PD" = Physical dimensions.
MEA02	738	Measurement Qualifier	M ID 1/3	Yes	Metaldyne use: "G" = Gross weight (required) "N" = Net weight (required)
MEA03	739	Measurement Value	M R 1/10	Yes	Value qualified by MEA02 in units qualified by MEA04.
MEA04	355	Unit or Basis for Measurement Code	M ID 2/2	Yes	Unit of Measure for MEA03. "LB" = Pounds. "KG" = Kilograms.

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

Level: Shipment

Loop: HL

Usage: Mandatory

Max Use: 1

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

Notes: One TD5 segment is required at the Shipment level for an ASN.

Examples: TD5*B*2*CONT*M

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
TD501	133	Routing Sequence Code	M ID 1/2	Yes	"B" = Originating carrier
TD502	66	Identification Code Qualifier	M ID 1/2	Yes	"2" = Standard Carrier Alphabetic Code (SCAC)
TD503	67	Identification Code	M ID 2/17	Yes	SCAC code. Required by Metaldyne.
TD504	91	Transportation Method/Type Code	M ID 1/2	Yes	"M" = Motor (trailer load) "LT" = Less that truck load "R" = Railroad "H" = Customer Pick-up "A" = Air Freight

Segment: **TD3** - Carrier Details (Equipment)

Level: Shipment

Loop: HL

Usage: Mandatory

Max Use: **1**

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

Notes:

Examples: TD3*TL**123456

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
TD301	40	Equipment Description Code	M ID 2/2	Yes	"TL" = Motor freight trailer
TD302	206	Equipment Initial	O AN 1/4	No	
TD303	207	Equipment Number	M AN 1/10	Yes	Required by Metaldyne. This is the trailer number of the freight carrier vehicle

Segment: **REF** - Reference Numbers

Level: Shipment

Loop: HL

Usage: Mandatory

Max Use: **2**

Purpose: To specify identifying numbers.

General Information

Examples: REF*BM*123456
REF*PK*123456

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
REF01	128	Reference Number Qualifier	M ID 2/2	Yes	"BM" = Bill of Lading "PK" = Packing slip
REF02	127	Reference Number	M AN 1/12	Yes	Value referred in REF01. **NOTE**: Although the standard allows for a 30-character number, Metaldyne allows a maximum of 12 characters.

Segment: **N1** - Name

Level: Shipment

Loop: HL/N1 Repeat: 200

Usage: Mandatory

Max Use: **2**

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

Notes: At Metaldyne three (3) N1 segments are used at the Shipment level.

Examples: N1*ST**01*006068506
N1*SF**01*201547189
N1*SU**92*00110902

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
N101	98	Entity Identifier Code	M ID 2/2	Yes	"ST" = Ship-to "SF" = Ship-from "SU" = Supplier Number
N102	93	Name	O ID 1/35	No	
N103	66	Identifier Code Qualifier	M ID 1/2	Yes	"01" = Duns Number "92" = Buyer assigned.
N104	67	Identification Code	M ID 2/17	Yes	For "ST" use the same value that's in the GS03. For "SF" use your Duns Number For "SU" use your Metaldyne assigned Supplier Code.

Tare Level.

The **Tare** hierarchical level specifies those segments, shown as **bold**, which pertain to the entire shipment. The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
HL	**Hierarchical Level**	**Yes**
LIN	Item Identification Detail	No
SN1	Item Detail	No
SLN	Subline Item Detail	No
PRF	Purchase Order Reference	No
PO4	Item Physical Details	No
PID	Product/Item Description	No
MEA	Measurements	No
PWK	Paperwork	No
PKG	Marketing, Packaging, Loading	No
TD1	Carrier Details (Quantity & Weights)	No
TD5	Carrier Details (Routing Sequence/Transit Time)	No
TD3	Carrier Details (Equipment)	No
TD4	Carrier Details (Special Handling/Hazardous Materials)	No
REF	**Reference Numbers**	**Yes**
PER	Administrative Communications Contact	No
CLD	Load Detail	No
REF	Reference Numbers	No
MAN	Marks and Numbers	No
DTM	Date/Time Reference	No
FOB	F.O.B. Related Instructions	No
PAL	Pallet Information	No
N1	Name	No
N2	Additional Name Information	No
N3	Address Information	No
N4	Geographic Location	No
REF	Reference Numbers	No
PER	Administrative Communications Contact	No
FOB	F.O.B. Related Instructions	No
SDQ	Destination Quantity	No
ETD	Excess Transportation Detail	No
CUR	Currency	No
ITA	Allowance, Charge or Service	No
GF	Furnished Goods and Services	No
LM	Code Source Information	No
LQ	Industry Code	No

Segment: **HL** - Hierarchical Level

Level: Tare

Loop: HL Repeat 200000

Usage: Mandatory

Max Use: 1

Purpose: To identify dependencies among the contents of hierarchically related groups of data segments.

Notes: The use of the HL segment at the Tare Level should be used when there is the need to specify a Master container label serial number, and shall point to the shipment level.

Examples: HL*2*1*T

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
HL01	628	Hierarchical ID Number	M AN 1/12	Yes	"1" for the initial HL segment and incremented by 1 in each subsequent HL segment within the transaction set.
HL02	734	Hierarchical Parent ID Number	O AN 1/2	Yes	"1". Always points to the shipment level.
HL03	735	Hierarchical Level Code	M ID 1/2	Yes	"T" = Tare Level.
HL04	736	Hierarchical Child Code	O ID 1/1	No	

Segment: **REF** - Reference Numbers

Level: Tare

Loop: HL

Usage: Mandatory

Max Use: **2**

Purpose: To specify a Master Label Number

General Information The use of one REF segment at the Tare Level is mandatory if a HL segment indicating Tare Level has been used. This segment shall contain the Master container label serial number.

Examples: REF*LS*123456

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
REF01	128	Reference Number Qualifier	M ID 2/2	Yes	"LS" = Container Barcode Label serial number.
REF02	127	Reference Number	M AN 1/12	Yes	Value referred in REF01. **NOTE**: Although the standard allows for a 30-character reference number, Metaldyne allows a maximum of 12 characters.

Item level.

The **Item** hierarchical level specifies those segments, shown as **bold**, which pertain to one specific part number in the shipment. One Item level should appear for each different part number in the shipment The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
HL	**Hierarchical Level**	**Yes**
LIN	**Item Identification Detail**	**Yes**
SN1	**Item Detail**	**Yes**
SLN	Subline Item Detail	No
PRF	**Purchase Order Reference**	**Yes**
PO4	Item Physical Details	No
MEA	Measurements	No
REF	Reference Numbers	No
CLD	**Load Detail**	**Yes**
REF	**Reference Numbers**	**Yes**
DTM	Date/Time Reference	No
N1	Name	No
ETD	Excess Transportation Detail	No
ITA	Allowance, Charge or Service	No

Segment: **HL** - Hierarchical Level

Level: Item

Loop: HL

Usage: Mandatory

Max Use: **1**

Purpose: To identify dependencies between the contents of hierarchically related groups of data segments.

NOTES: 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 packing data to a line items.

The Item level is required for all EDI applications.

Examples: HL*2*1*I

Elem ID	Elem #	Element Name	AIAG/MD Features	MD Use	Comments
HL01	628	Hierarchical ID Number	M AN 1/12	Yes	"2" This is the 2nd HL segment. Increment by 1 for each subsequent HL segment.
HL02	734	Hierarchical Parent ID Number	M AN 1/12	Yes	"1" This HL segment is subordinate to the Shipment HL segment. If a Tare HL has been used, then this HL segment is subordinate to the Tare HL segment.
HL03	735	Hierarchical Level Code	M ID 1/2	Yes	"I"=Item

Segment: **LIN** - Item Identification

Level: Item

Loop: HL

Usage: Mandatory

Max Use: **1**

Purpose: To specify basic item identification data.

Notes:

Examples: LIN**BP*04578144AB

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
LIN01	350	Assigned Identification	O AN 1/11	No	
LIN02	235	Product/Service ID Qualifier	M ID 2/2	Yes	"BP" = Buyer's part number
LIN03	234	Product/Service ID	M AN 8/18	Yes	Use the Metaldyne part number found on the Material Release. **NOTE**: Although the standard allows for a 30-character number, Metaldyne allows a maximum of 18 characters.

Segment: **SN1** - Item Detail

Level: Item

Loop: HL

Usage: Mandatory

Max Use: **1**

Purpose: To specify line item detail relative to the shipment.

Notes: Used to show the quantity being shipped, unit of measure, and year-to-date cumulative shipped quantity.

Examples: SN1**41234*LB*150236

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
SN101	350	Assigned Identification	O AN 1/11	No	
SN102	382	Number of Units Shipped	M R 1/10	Yes	Quantity shipped for the part in the LIN segment.
SN103	355	Unit or Basis for Measurement Code	M ID 2/2	Yes	For SN102 and SN104: Use unit of measure shown on Materials Release, usually EA.
SN104	646	Quantity Shipped to Date	M R 1/9	Yes	Cumulative net quantity shipped for the year, including the quantity in SN102.

Segment: **PRF** - Purchase Order Reference

Level: Item

Loop: HL

Usage: Mandatory

Max Use: **1**

Purpose: To provide the Purchase Order Number.

Notes:

Examples: PRF*1204

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
PRF01	324	Purchase Order Number	M AN 1/8	Yes	**NOTE**: Although the standard allows for a 22 character number, Metaldyne allows a maximum of 8 characters.

Segment: **CLD** - Load Detail

Level: Item

Loop: HL

Usage: Mandatory

Max Use: **200**

Purpose: To specify container information.

Notes: Send a "CLD" segment for each container of parts.

Examples: CLD*1*1234*PLT90

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
CLD01	622	Number of loads	M N0 2/5	Yes	
CLD02	382	Number of units shipped	M R 1/10	Yes	The number of parts in this container.
CLD03	103	Packaging Code	M AN 5/5	Yes	

Segment: **REF** - Reference Numbers

Level: Item

Loop: HL

Usage: Mandatory

Max Use: **2**

Purpose: To specify container Barcode Serial Number and Lot Number.

Notes:

Examples: REF*LS*80921792
REF*LT*8765309

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
REF01	128	Reference Number Qualifier	M ID 2/2	Yes	"LS" = Container Barcode Label serial number. "LT"=Your internal Lot Tracking Number.
REF02	127	Reference Number	M AN 1/12	Yes	Value referenced to in REF01. **NOTE**: Although the standard allows for a 30-character number, Metaldyne allows a maximum of 12 characters.

Summary level.

The **Summary** hierarchical level specifies those segments, shown as **bold**, which pertain to completing the ASN. The segments included in this level are:

SEG ID	Segment Name	Metaldyne Use
CTT	**Transaction Totals**	**Yes**
SE	**Transaction Set Trailer**	**Yes**

Segment: **CTT** - Transaction Totals

Level: Summary

Loop:

Usage: Mandatory

Max Use: **1**

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

Notes: Used to provide the number of HL segments used in the ASN transmitted. This total is used to cross-check that the complete transaction set was received.

Examples: CTT*2*41234

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
CTT01	354	Number of Line Items	M NO 1/6	Yes	Total number of HL segments
CTT02	347	Hash Total	M R 1/10	Yes	Total of SN102 segments

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).

Notes: The transaction set control number value in this trailer must match the same element value in the transaction set header (ST02).

Examples: SE*52*0001

Elem ID	Elem #	Element Name	Attributes	MD Use	Comments
SE01	96	Number of Included Segments	M NO 1/10	Yes	
SE02	329	Transaction Set Control Number	M AN 4/9	Yes	Same as ST02.

Metaldyne ASN Example 1.

The following data is used to create the ASN shown below:

ASN number	822345
ASN and shipment data and time	March 1, 2006 11:36 Am
Gross weight	25500 Lbs.
Net weight	24300 Lbs.
Number of containers	3 metal bins
Motor freight carrier and trailer	CETR 456123
Bill of Lading number	822345
Packing slip number	822345
Ship to site number	006068506 – Metaldyne New Castle
Ship from supplier number	S921800
Part number	H40270B171951H
Year to date cumulative shipped	250321
Purchase order number	PO040

Container information:

Lot Number	Serial	Quantity
H66654	2233445	5120
H66654	2233446	5095
H66654	2233447	5317

The following is the ASN created from the above information:

```
ST*856*0001
BSN*00*822345*060301*1136
DTM*011*060301*1136

HL*1**S
MEA*PD*G*25500*LB
MEA*PD*N*24300*LB
TD5*B*02*CETR*M
TD3*TL**456123
REF*BM*822345
REF*PK*822345
N1*ST**01*006068506
N1*SF**01*201547189
N1*SU**92*S921800

HL*2*1*I
LIN**BP*H40270B171951H
SN1**15532*EA*250321
PRF*PO040

CLD*1*5120*BIN52
REF*LS*2233445
```

REF*LT*H66654

CLD*1*5095*BIN52
REF*LS*2233446
REF*LT*H66654

CLD*1*5317*BIN52
REF*LS*2233447
REF*LT*H66654

CTT*2*15532
SE*28*0001

Metaldyne ASN Example 2.

The following data is used to create the ASN shown below:

ASN number	822345
ASN and shipment data and time	March 1, 2006 11:36 Am
Gross weight	25500 Lbs.
Net weight	24300 Lbs.
Number of containers	3 Pallets containing 3 boxes on each Pallet
Motor freight carrier and trailer	CETR 456123
Bill of Lading number	822345
Packing slip number	822345
Ship to site number	006068506 – Metaldyne New Castle
Ship from supplier number	S921800
Part number	H40270B171951H
Year to date cumulative shipped	250321
Purchase order number	PO040

Container information:

Pallet 1 = Master Label - ML0000000001

Lot Number	Serial	Quantity
H66654	2233445	5120
H66654	2233446	5095
H66654	2233447	5317

Pallet 2 = Master Label - ML0000000002

Lot Number	Serial	Quantity
H66654	2233448	5120
H66654	2233449	5095
H66654	2233450	5317

Pallet 3 = Master Label - ML0000000003

Lot Number	Serial	Quantity
H66654	2233451	5120
H66654	2233452	5095
H66654	2233453	5317

The following is the ASN created from the above information:

ST*856*0001
BSN*00*822345*060301*1136
DTM*011*060301*1136

HL*1**S
MEA*PD*G*25550*LB
MEA*PD*N*24300*LB
TD5*B*02*CETR*M
TD3*TL**456123
REF*BM*822345
REF*PK*822345
N1*ST**01*006068506
N1*SF**01*201547189
N1*SU**92*S921800

HL*2*1*T
REF*LS*ML0000000001
HL*3*2*I
LIN**BP*H40270B171951H
SN1**15532*EA*250321
PRF*PO040
CLD*1*5120*BOX90
REF*LS*2233445
REF*LT*H66654
CLD*1*5095*BOX90
REF*LS*2233446
REF*LT*H66654
CLD*1*5317*BOX90
REF*LS*2233447
REF*LT*H66654

HL*4*1*T
REF*LS*ML0000000002
HL*5*4*I
LIN**BP*H40270B171951H
SN1**15532*EA*250321
PRF*PO040
CLD*1*5120*BOX90
REF*LS*2233448
REF*LT*H66654
CLD*1*5095*BOX90
REF*LS*2233449
REF*LT*H66654
CLD*1*5317*BOX90
REF*LS*2233450
REF*LT*H66654

HL*6*1*T
REF*LS*ML0000000003
HL*7*6*I
LIN**BP*H40270B171951H
SN1**15532*EA*250321
PRF*PO040

CLD*1*5120*BOX90
REF*LS*2233451
REF*LT*H66654
CLD*1*5095*BOX90
REF*LS*2233452
REF*LT*H66654
CLD*1*5317*BOX90
REF*LS*2233453
REF*LT*H66654

CTT*7*46596
SE*60*0001