

160 Transportation Automatic Equipment Identification

FUNCTIONAL GROUP ID = **SJ**

This Draft Standard for Trial Use contains the format and establishes the data contents of the Transportation Automatic Equipment Identification Transaction Set (160) for use within the context of an Electronic Data Interchange (EDI) environment. This transaction set can be used to allow participants to share "reader" equipment information and data at interchange points.

This transaction set is still under development and these changes are not yet reflected in X12

Table 1

PAGE #	POS. #	SEG. ID	NAME	REQ. DES.	MAX USE	LOOP REPEAT
100	010	ST	Transaction Set Header	M	1	
101	020	BAX	Beginning Segment For Advance Consist and Automatic Equipment Ident.	M	1	
104	030	ASS	Automatic Equipment Identification Site Information	M	1	
106	035	YNQ	Yes/No Question	M	1	
107	040	N9	Reference Number	O	10	
108	050	QTY	Quantity	O	5	
109	060	AEI	Equipment Information Summary	O	16	
LOOP ID - EI						500
110	070	EI	Automatic Equipment Identification	M	1	
111	080	QTY	Quantity	O	20	
112	090	DTM	Date/Time Reference	O	20	
LOOP ID - TSI						25
113	095	TSI	Automatic Equipment Tag Status Information	O	1	
115	100	YNQ	Yes/No Question	O	25	
116	105	LQ	Industry Code	O	25	
LOOP ID - QTY						20
118	110	QTY	Quantity	O	1	
119	115	DTM	Date/Time Reference	O	2	
121	120	SE	Transaction Set Trailer	M	1	

Segment: **ST** Transaction Set Header

Loop: _____

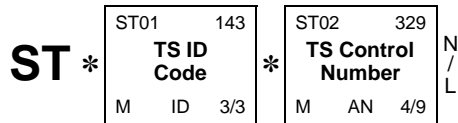
Usage: Mandatory

Max Use: 1

Max Length: 17

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).



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set.	M	ID	3/3
ST02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M	AN	4/9

Segment: **BAX** Beginning Segment For Advance Consist and Automatic Equipment Ident.

Loop: _____

Usage: Mandatory

Max Use: 1

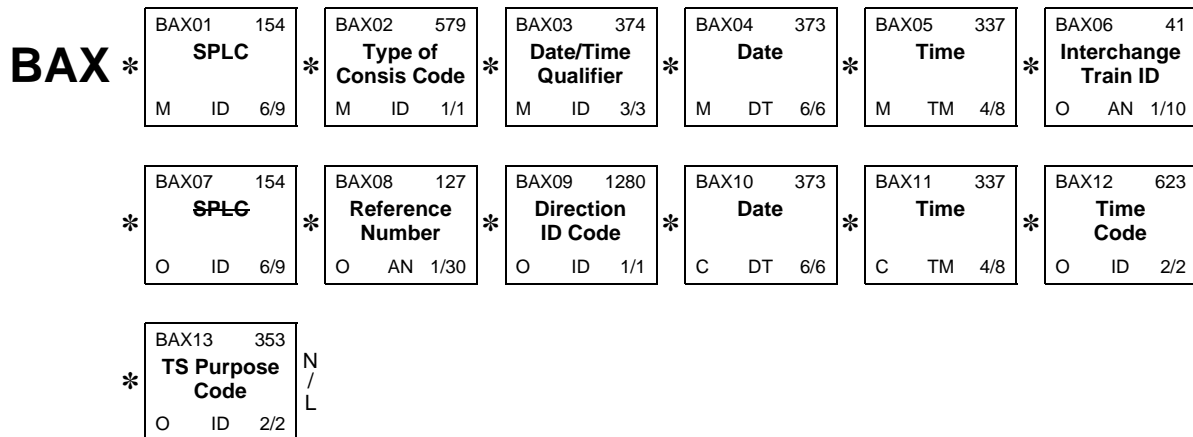
Max Length: 112

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

Syntax: **1 C1110**
If BAX11 is present, then BAX10 is required.

2 C1211
If BAX12 is present, then BAX11 is required.

- Semantic:**
- 1 BAX01 is the to location SPLC
 - 2 If BAX02 = "T" (Train Consist), then BAX06 must not be blank.
 - 3 BAX07 is the from location SPLC
 - 4 BAX08 is the Reader Identification Number



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
BAX01	154	Standard Point Location Code	M ID 6/9
Code (Standard Point Location) defined by NMFTA point development group as the official code assigned to a city or point (for ratemaking purposes) within a city.			
Actual location of the scanner			
BAX02	579	Type of Consist Code	M ID 1/1
Code indicating the type of consist.			
		CODE	DEFINITION
		A	Advance Automatic Equipment Identification Consist
If used, BAX08 is required			
BAX03	374	Date/Time Qualifier	M ID 3/3
Code specifying type of date or time, or both date and time.			
		CODE	DEFINITION

		140	Actual			
BAX04	373	Date		M	DT	6/6
		Date (YYMMDD).				
		Date first piece of equipment passed reader				
BAX05	337	Time		M	TM	4/8
		Time expressed in 24-hour clock time (HHMMSS) (Time range: 000000 through 235959) ONLY HOURS AND MINUTES ARE USED BY THE RAIL INDUSTRY				
		Time first piece of equipment passed reader				
BAX06	41	Interchange Train Identification		O	AN	1/10
		Train identification (free-form).				
		This is application-level data				
BAX08	127	Reference Number		O	AN	1/30
		Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.				
		Required if BAX02 is 'A'. Used for the Unique Reader Identification assigned by owner.				
		First position is '0' for railroads and non '0' for non-railroads. Next four positions are for the AAR Billing Road Code, and unique substitutes for non-railroads. The last seven positions will accommodate station numbers or unique owner ID.				
BAX09	1280	Direction Identifier Code		O	ID	1/1
		Code identifying the geographic direction in which the equipment is moving				
		Required if BAX02 is 'A'				
		CODE	DEFINITION			
		E	East			
		N	North			
		S	South			
		W	West			
BAX10	373	Date		C	DT	6/6
		Date (YYMMDD).				
		Date last piece of equipment passed the reader.				
		Required if BAX02 is 'A'				
BAX11	337	Time		C	TM	4/8
		Time expressed in 24-hour clock time (HHMMSS) (Time range: 000000 through 235959) ONLY HOURS AND MINUTES ARE USED BY THE RAIL INDUSTRY				
		Time last piece of equipment passed the reader				
		Required if BAX02 is 'A'				
BAX12	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.				
		CODE	DEFINITION			
		CD	Central Daylight Time			
		CS	Central Standard Time			
		CT	Central Time			
		ED	Eastern Daylight Time			
		ES	Eastern Standard Time			
		ET	Eastern Time			

GM	Greenwich Mean Time
LT	Local Time
	Used only for time codes not yet defined (e.g. Atlantic)
MD	Mountain Daylight Time
MS	Mountain Standard Time
MT	Mountain Time
PD	Pacific Daylight Time
PS	Pacific Standard Time
PT	Pacific Time

BAX13 353 Transaction Set Purpose Code O ID 2/2
Code identifying purpose of transaction set.

CODE	DEFINITION
00	Original
15	Re-Submission
ZZ	Mutually Defined
	Used for a Summary

Segment: **ASS** Automatic Equipment Identification Site Information

Loop: _____

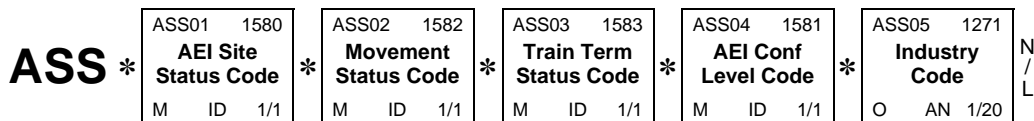
Usage: Mandatory

Max Use: 1

Max Length: 33

Purpose: To identify the status of an Automatic Equipment Identification Reader Site

Semantic: 1 ASS05 is the User-defined Direction of the Switch.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES																																																				
ASS01	1580	Automatic Equipment Identification Site Status Code	M ID 1/1																																																				
		Code indicating the site status of the Automatic Equipment Identification Reader.																																																					
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr><td>A</td><td>Antenna Warning</td></tr> <tr><td>B</td><td>Antenna Fatal</td></tr> <tr><td>C</td><td>Communication Warning</td></tr> <tr><td>D</td><td>Communication Fatal</td></tr> <tr><td>E</td><td>Intertrack Communication Failure Warning</td></tr> <tr><td>F</td><td>Intertrack Communication Failure Fatal</td></tr> <tr><td>G</td><td>Good</td></tr> <tr><td>H</td><td>Power Supply Failure</td></tr> <tr><td>I</td><td>Power Supply Fatal</td></tr> <tr><td>J</td><td>Power Supply Off</td></tr> <tr><td>K</td><td>Software Set-up Failure</td></tr> <tr><td>L</td><td>Available</td></tr> <tr><td>M</td><td>Multiple Processor</td></tr> <tr><td>N</td><td>Available</td></tr> <tr><td>O</td><td>Presence Loop Off</td></tr> <tr><td>P</td><td>Presence Loop Off</td></tr> <tr><td>Q</td><td>Presence Loop On</td></tr> <tr><td>R</td><td>Reader or RF Warning</td></tr> <tr><td>S</td><td>Reader or RF Fatal</td></tr> <tr><td>T</td><td>Transducer Warning</td></tr> <tr><td>U</td><td>Transducer Fatal</td></tr> <tr><td>V</td><td>Transducer Off</td></tr> <tr><td>X</td><td>External Detector Warning</td></tr> <tr><td>Y</td><td>External Detector Fatal</td></tr> <tr><td>Z</td><td>Security</td></tr> </tbody> </table>	CODE	DEFINITION	A	Antenna Warning	B	Antenna Fatal	C	Communication Warning	D	Communication Fatal	E	Intertrack Communication Failure Warning	F	Intertrack Communication Failure Fatal	G	Good	H	Power Supply Failure	I	Power Supply Fatal	J	Power Supply Off	K	Software Set-up Failure	L	Available	M	Multiple Processor	N	Available	O	Presence Loop Off	P	Presence Loop Off	Q	Presence Loop On	R	Reader or RF Warning	S	Reader or RF Fatal	T	Transducer Warning	U	Transducer Fatal	V	Transducer Off	X	External Detector Warning	Y	External Detector Fatal	Z	Security	
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K	Software Set-up Failure																																																						
L	Available																																																						
M	Multiple Processor																																																						
N	Available																																																						
O	Presence Loop Off																																																						
P	Presence Loop Off																																																						
Q	Presence Loop On																																																						
R	Reader or RF Warning																																																						
S	Reader or RF Fatal																																																						
T	Transducer Warning																																																						
U	Transducer Fatal																																																						
V	Transducer Off																																																						
X	External Detector Warning																																																						
Y	External Detector Fatal																																																						
Z	Security																																																						
ASS02	1582	Movement Status Code	M ID 1/1																																																				
		Code indicating the type of movement at the automatic equipment identification reader site.																																																					
		Train movement only (Consist Level)																																																					
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr><td>A</td><td>Through Movement over Five Miles per Hour</td></tr> <tr><td>B</td><td>Through Movement Under Five Miles per Hour</td></tr> <tr><td>C</td><td>Stop and Go</td></tr> </tbody> </table>	CODE	DEFINITION	A	Through Movement over Five Miles per Hour	B	Through Movement Under Five Miles per Hour	C	Stop and Go																																													
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		D	Switching			
		E	Pull-By			
ASS03	1583	Train Termination Status Code		M	ID	1/1
		Code indicating the Train Termination Status				
		CODE	DEFINITION			
		N	Normal			
		O	Other			
		T	Time Out			
ASS04	1581	AEI Consist Confidence Level Code		M	ID	1/1
		Code indicating the confidence level of the information being passed by an automatic equipment identification reader.				
		CODE	DEFINITION			
		A	Axle Patterns are Questionable			
		D	Excessive Disqualifiers			
		G	Good (All information to follow is good)			
		M	Multiple inconsistencies			
ASS05	1271	Industry Code		O	AN	1/20
		Code indicating a code from a specific industry code list				
		Direction of the Switch (Owner Defined). Numeric 0-9.				

Segment: **YNQ** Yes/No Question

Loop: _____

Usage: Mandatory

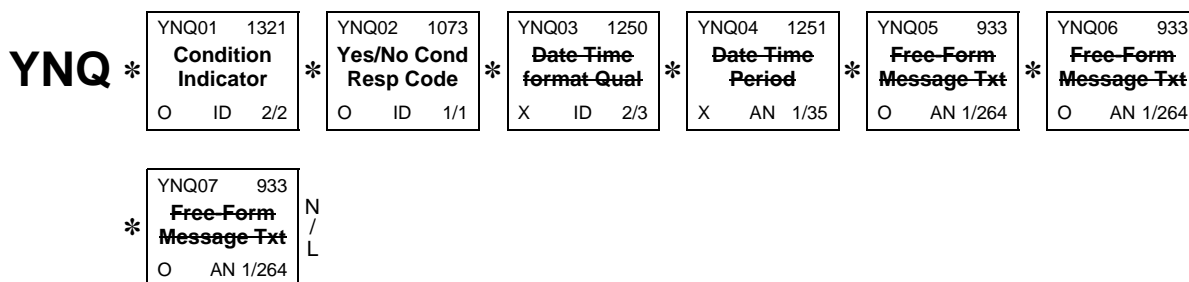
Max Use: 1

Max Length: 844

Purpose: To identify and answer yes and no questions, including the date, time, and comments further qualifying the condition.

Syntax: 1 **P0304**
 If either YNQ03 or YNQ04 is present, then the other is required.

Semantic: 1 YNQ02 confirms or denies the statement made in YNQ01. A 'Y' indicates the statement is confirmed. An 'N' indicates the statement is denied.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
YNQ01	1321	Condition Indicator Code indicating a condition	O ID 2/2
		<u>CODE</u> <u>DEFINITION</u>	
		AT Adjacent Track Occupied	
YNQ02	1073	Yes/No Condition or Response Code Code indicating a Yes or No condition or response.	O ID 1/1
		<u>CODE</u> <u>DEFINITION</u>	
		N No	
		Y Yes	

Segment: **N9** Reference Number

Loop: _____

Usage: Optional

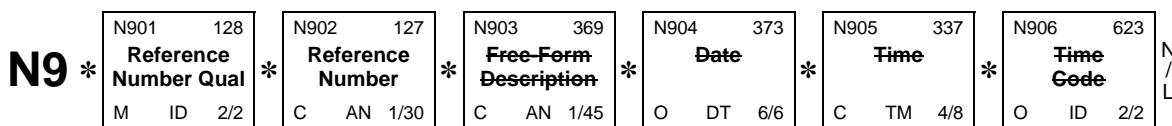
Max Use: 10

Max Length: 102

Purpose: To transmit identifying numbers and descriptive information as specified by the reference number qualifier

Syntax: **1 R0203**
At least one of N902 or N903 is required.

2 C0605
If N906 is present, then N905 is required.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
N901	128	Reference Number Qualifier Code qualifying the Reference Number.	M ID 2/2
		55 Sequence Number Site Transmission Sequence Number	
		V0 Version Number Vendor Version Number	
N902	127	Reference Number Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	C AN 1/30

Segment: QTY Quantity

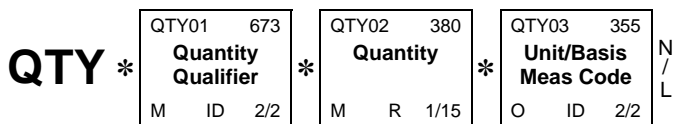
Loop: _____

Usage: Optional

Max Use: 5

Max Length: 26

Purpose: To specify quantity information.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES														
QTY01	673	Quantity Qualifier Code specifying the type of quantity.	M	ID	2/2												
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr><td>R1</td><td>Minimum Speed</td></tr> <tr><td>R2</td><td>Maximum Speed</td></tr> <tr><td>R3</td><td>Average Speed</td></tr> <tr><td>R4</td><td>Train Length</td></tr> <tr><td>R5</td><td>Axles</td></tr> </tbody> </table>	CODE	DEFINITION	R1	Minimum Speed	R2	Maximum Speed	R3	Average Speed	R4	Train Length	R5	Axles			
CODE	DEFINITION																
R1	Minimum Speed																
R2	Maximum Speed																
R3	Average Speed																
R4	Train Length																
R5	Axles																
QTY02	380	Quantity Numeric value of quantity.	M	R	1/15												
QTY03	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2												
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr><td>FT</td><td>Foot</td></tr> <tr><td></td><td>Used for Train Length</td></tr> <tr><td>HM</td><td>Miles Per Hour</td></tr> <tr><td></td><td>Used for Speed</td></tr> </tbody> </table>	CODE	DEFINITION	FT	Foot		Used for Train Length	HM	Miles Per Hour		Used for Speed					
CODE	DEFINITION																
FT	Foot																
	Used for Train Length																
HM	Miles Per Hour																
	Used for Speed																

Segment: **AEI** Equipment Information Summary

Loop: _____

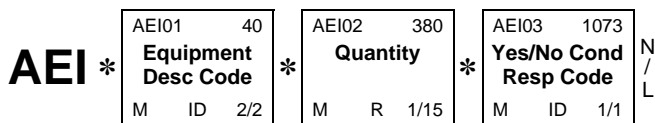
Usage: Optional

Max Use: 16

Max Length: 25

Purpose: To provide summary information on equipment type and count

Semantic: 1 If AEI03 is 'Y', then the equipment is tagged. If 'N', then equipment is not tagged.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
AEI01	40	Equipment Description Code Code identifying type of equipment used for shipment.	M	ID	2/2
		<u>CODE</u> <u>DEFINITION</u>			
		LO Locomotive			
		RR Rail Car			
AEI02	380	Quantity Numeric value of quantity.	M	R	1/15
AEI03	1073	Yes/No Condition or Response Code Code indicating a Yes or No condition or response.	M	ID	1/1
		<u>CODE</u> <u>DEFINITION</u>			
		N No			
		Y Yes			

Segment: **EI** Automatic Equipment Identification

Loop: EI **Repeat:** 500

Usage: Mandatory

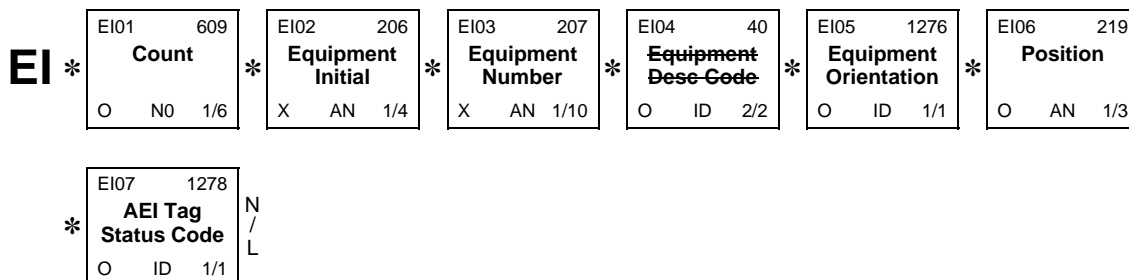
Max Use: 1

Max Length: 37

Purpose: To identify individual equipment and its sequence number for automatic identification

Syntax: 1 P0203
 If either EI02 or EI03 is present, then the other is required.

Semantic: 1 EI06 is the Tier of the Tag Placement



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
EI01	609	Count Occurrence counter	O NO 1/6
EI02	206	Equipment Initial Prefix or alphabetic part of an equipment unit's identifying number.	X AN 1/4
EI03	207	Equipment Number Sequencing or serial part of an equipment unit's identifying number (pure numeric form for equipment number is preferred).	X AN 1/10
EI05	1276	Equipment Orientation Code Code indicating the direction the equipment is entrained. "A" is the opposite end of the car from the brake and "B" is the same end of the car from the brake.	O ID 1/1
		CODE DEFINITION	
		A Opposite End of Car From Brake	
		B Brake End of Car	
EI06	219	Position Relative position of shipment in car, trailer, or container (mutually defined).	O AN 1/3
EI07	1278	Tag Status Code Code indicating the status of an Automatic Equipment Identification Tag	O ID 1/1
		CODE DEFINITION	
		C Candidate Platform	
		G Good	
		L Left Tag Bad	
		M Equipment Has Two Tags and the Equipment Initial and number Are Not the Same	
		N No Tag Read	
		R Right Tag Bad	

Segment: QTY Quantity

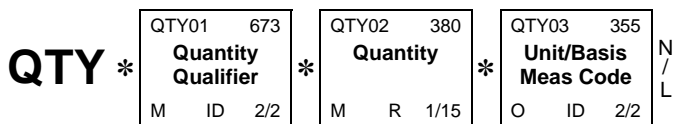
Loop: EI

Usage: Optional

Max Use: 20

Max Length: 26

Purpose: To specify quantity information.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES																
QTY01	673	Quantity Qualifier Code specifying the type of quantity.	M	ID	2/2														
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>R0</td> <td>Temperature Measured in Fahrenheit</td> </tr> <tr> <td>R5</td> <td>Axles</td> </tr> <tr> <td>R6</td> <td>Platform Count</td> </tr> <tr> <td>R7</td> <td>Speed</td> </tr> <tr> <td>R8</td> <td>Length</td> </tr> <tr> <td>R9</td> <td>Fuel Measured in Gallons</td> </tr> </tbody> </table>	CODE	DEFINITION	R0	Temperature Measured in Fahrenheit	R5	Axles	R6	Platform Count	R7	Speed	R8	Length	R9	Fuel Measured in Gallons			
CODE	DEFINITION																		
R0	Temperature Measured in Fahrenheit																		
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R8	Length																		
R9	Fuel Measured in Gallons																		
QTY02	380	Quantity Numeric value of quantity.	M	R	1/15														
QTY03	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2														
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>FT</td> <td>Foot</td> </tr> <tr> <td>HM</td> <td>Miles Per Hour</td> </tr> <tr> <td>UN</td> <td>Unit</td> </tr> </tbody> </table>	CODE	DEFINITION	FT	Foot	HM	Miles Per Hour	UN	Unit									
CODE	DEFINITION																		
FT	Foot																		
HM	Miles Per Hour																		
UN	Unit																		

Segment: **DTM** Date/Time Reference

Loop: EI

Usage: Optional

Max Use: 20

Max Length: 70

Purpose: To specify pertinent dates and times

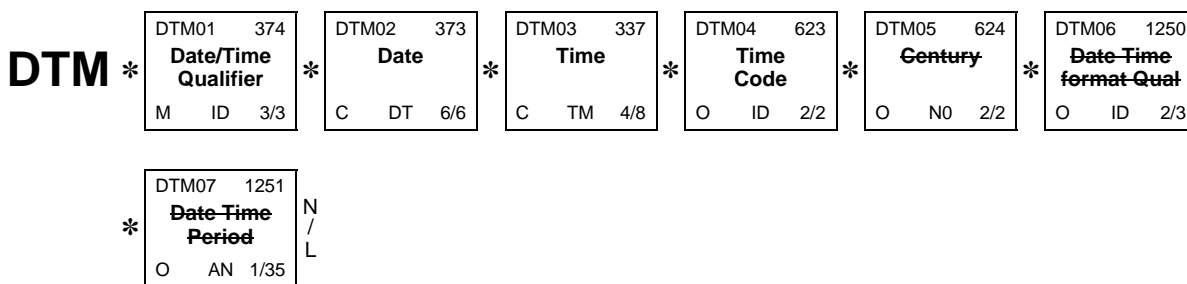
Syntax: 1 **R020306**

At least one of DTM02, DTM03 or DTM06 is required.

2 **P0607**

If either DTM06 or DTM07 is present, then the other is required.

Notes: 1 **Read of individual piece of equipment**



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
DTM01	374	Date/Time Qualifier Code specifying type of date or time, or both date and time.	M ID 3/3
		<u>CODE</u> <u>DEFINITION</u>	
		140 Actual	
DTM02	373	Date Date (YYMMDD).	C DT 6/6
DTM03	337	Time Time expressed in 24-hour clock time (HHMMSS) (Time range: 000000 through 235959) ONLY HOURS AND MINUTES ARE USED BY THE RAIL INDUSTRY	C TM 4/8
DTM04	623	Time Code 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.	O ID 2/2

Segment: **TSI** Automatic Equipment Tag Status Information

Loop: TSI **Repeat:** 25

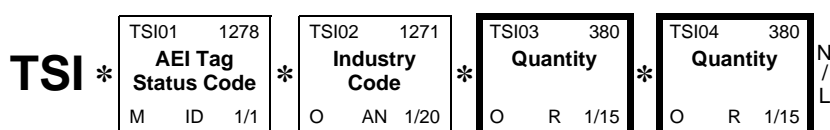
Usage: Optional

Max Use: 1

Max Length: 59

Purpose: To indicate the status of an Automatic Equipment Identification Tag and associated information.

- Semantic:**
- 1 TSI02 is the AAR Tag Type Code
 - 2 TSI03 is the number of handshakes on Antenna '0'
 - 3 TSI04 is the number of handshakes on Antenna '1'



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
TSI01	1278	Tag Status Code Code indicating the status of an Automatic Equipment Identification Tag	M ID 1/1
		CODE DEFINITION	
		A Axle Error	
		B Bearing Error	
		D Disqualification	
		E Equipment Group Code Error	
		F Length Error	
		H Performance	
		I No Other Problems	
		J Multiple Errors	
		K OK No Other Problems Flagged	
		O Orientation Error	
		P Platform Code Error	
		S Communication Fault	
		U Unknown	
		W Window Violation	
TSI02	1271	Industry Code Code indicating a code from a specific industry code list	O AN 1/20
		CODE DEFINITION	
		CH Chassis	
		CN Container	
		DY Dolly	
		ET End of Train Device	
		GD Dynamic Generator Set	
		GS Generator Set	
		IR Impact Recorder	
		LD Dynamic Locomotive	
		LO Locomotive	
		LR RoadRailer	
		OT Other	
		RC Railcar Cover	
		RL Input Recorder Low Battery	
		RR Railcar	

			ST	Straight Truck				
			TC	Tractor				
			TR	Trailer				
Required	TSI03	380	Quantity		O	R	1/15	
			Numeric value of quantity.					
Required	TSI04	380	Quantity		O	R	1/15	
			Numeric value of quantity.					

Segment: **YNQ** Yes/No Question

Loop: TSI

Usage: Optional

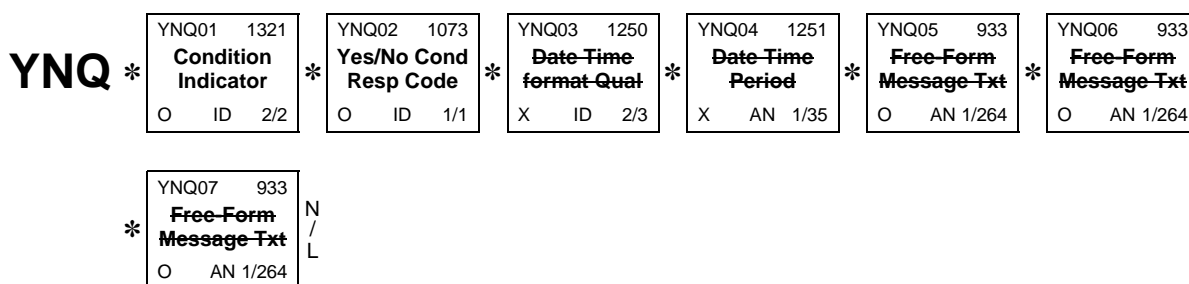
Max Use: 25

Max Length: 844

Purpose: To identify and answer yes and no questions, including the date, time, and comments further qualifying the condition.

Syntax: **1 P0304**
If either YNQ03 or YNQ04 is present, then the other is required.

Semantic: **1** YNQ02 confirms or denies the statement made in YNQ01. A 'Y' indicates the statement is confirmed. An 'N' indicates the statement is denied.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
YNQ01	1321	Condition Indicator Code indicating a condition	O ID 2/2
		<u>CODE</u> <u>DEFINITION</u>	
		AF Alarm Flags Reported	
		CW Cooling Water is Low	
		DB Dynamic Brakes are Cut Out	
		DO Dynamic Brakes are Operational	
		DS All Door Seals are in Tact	
		ES Electrical Control System Shut Down	
		HD High Discharge Pressure Flag	
		HE High Engine Water Pressure	
		LO Locomotive is isolated	
		LP Low Engine Oil Pressure	
		LR Locomotive Engine is running	
		MA Major Alarm Flag Reported	
		MF Microprocessor Fault	
		OP Out of Range Product Temperature	
		RC Low Refrigerant Capacity Shutdown	
		RD Recent Defrost	
		RH Rated Horsepower Can be Produced	
		SF Sensor Fault	
		TM Traction Motor is Cut Out	
YNQ02	1073	Yes/No Condition or Response Code Code indicating a Yes or No condition or response.	O ID 1/1
		<u>CODE</u> <u>DEFINITION</u>	
		N No	
		U Unknown	

Y Yes

Segment: LQ Industry Code

Loop: TSI

Usage: Optional

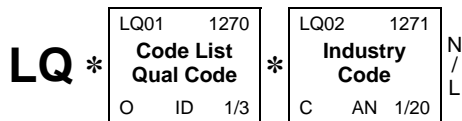
Max Use: 25

Max Length: 28

Purpose: Code to transmit standard industry codes

Syntax: 1 C0102

If LQ01 is present, then LQ02 is required.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
LQ01	1270	Code List Qualifier Code Code identifying a specific industry code list	O ID 1/3
		<u>CODE</u> <u>DEFINITION</u>	
		DGO Dynamic Generator Set Codes	
		DLO Dynamic Locomotive Tag Codes	
		IMP Impact Recorder Codes	
		IPA Impact Axis or Analog Port Codes	
		MCD Generator Set Mounting Code	
		RUM Refrigeration Unit Operating Mode Codes	
LQ02	1271	Industry Code Code indicating a code from a specific industry code list	C AN 1/20
		<u>CODE</u> <u>DEFINITION</u>	
		1 Low Capacity Cool Used with LQ01 code value of 'RUM'	
		2 High Capacity Cool Used with LQ01 code value of 'RUM'	
		3 Heat Used with LQ01 code value of 'RUM'	
		4 Null Used with LQ01 code value of 'RUM'	
		5 Defrost Used with LQ01 code value of 'RUM'	
		6 Power Off Used with LQ01 code value of 'RUM'	
		7 Alarm Shutdown Used with LQ01 code value of 'RUM'	
		A1 Digital Input - One Alarm Used with LQ01 code value 'IMP'	
		A2 Digital Input - Two Alarms Used with LQ01 code value 'IMP'	
		A3 Digital Input - 3 Alarms Used with LQ01 code value 'IMP'	

A4	Digital Input - Four Alarms Used with LQ01 code value 'IMP'
AX	X Axis Used with LQ01 code value of 'IPA'
AY	Y Axis Used with LQ01 code value of 'IPA'
AZ	Z Axis Used with LQ01 code value of 'IPA'
NA	No Alarm Used with LQ01 code value 'IMP'
NC	Nitrogen Clip Used with LQ01 code value of 'MCD'
NM	Nose Mount Used with LQ01 code value of 'MCD'
NU	Not Used/Other Used with LQ01 code value of 'MCD'
P1	Analog Port #1 Used with LQ01 code value of 'IPA'
P2	Analog Port #2 Used with LQ01 code value of 'IPA'
P3	Analog Port #3 Used with LQ01 code value of 'IPA'
P4	Analog Port #4 Used with LQ01 code value of 'IPA'
P5	Analog Port #5 Used with LQ01 code value of 'IPA'
RL	Input Recorder Low Battery Used with LQ01 code value 'IMP'
US	Under Slung Used with LQ01 code value of 'MCD'
XX	Cannot Detect Used with LQ01 code value of 'RUM'

Segment: QTY Quantity

Loop: QTY **Repeat:** 20

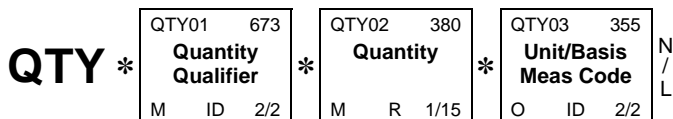
Usage: Optional

Max Use: 1

Max Length: 26

Purpose: To specify quantity information.

Notes: 1 **Used for Impact or Analog Measurements**



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
QTY01	673	Quantity Qualifier Code specifying the type of quantity.	M	ID	2/2
		<u>CODE</u> <u>DEFINITION</u>			
		G1 G-Force			
		HS Hours			
		R9 Fuel			
QTY02	380	Quantity Numeric value of quantity.	M	R	1/15
QTY03	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
		<u>CODE</u> <u>DEFINITION</u>			
		GA Gallon			
		HM Miles Per Hour			
		KP Kilometers Per Hour			
		LT Liter			

Segment: **DTM** Date/Time Reference

Loop: QTY

Usage: Optional

Max Use: 2

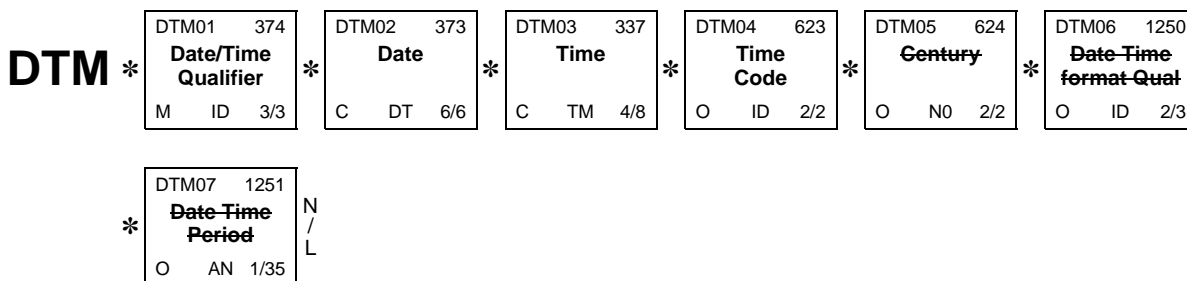
Max Length: 70

Purpose: To specify pertinent dates and times

Syntax: **1 R020306**
 At least one of DTM02, DTM03 or DTM06 is required.

2 P0607
 If either DTM06 or DTM07 is present, then the other is required.

Notes: **1 Used to report date and time of alarm or impact or analog measurement**



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
DTM01	374	Date/Time Qualifier Code specifying type of date or time, or both date and time.	M ID 3/3
		CODE DEFINITION	
		140 Actual	
DTM02	373	Date Date (YYMMDD).	C DT 6/6
DTM03	337	Time Time expressed in 24-hour clock time (HHMMSS) (Time range: 000000 through 235959) ONLY HOURS AND MINUTES ARE USED BY THE RAIL INDUSTRY	C TM 4/8
DTM04	623	Time Code 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.	O ID 2/2
		CODE DEFINITION	
		CD Central Daylight Time	
		CS Central Standard Time	
		CT Central Time	
		ED Eastern Daylight Time	
		ES Eastern Standard Time	
		ET Eastern Time	
		LT Local Time	
		Used for time zones not yet established in X12 (ie: Atlantic)	
		MD Mountain Daylight Time	

MS	Mountain Standard Time
MT	Mountain Time
PD	Pacific Daylight Time
PS	Pacific Standard Time
PT	Pacific Time

Segment: **SE** Transaction Set Trailer

Loop: _____

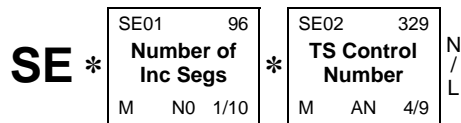
Usage: Mandatory

Max Use: 1

Max Length: 24

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.



Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
SE01	96	Number of Included Segments	M NO 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	

