
**ELECTRONIC DATA INTERCHANGE (EDI)**

# 410
# RAIL CARRIER
# FREIGHT DETAILS AND INVOICE

**USING**
**ASC X12 TRANSACTION SET 410**
**VERSION 004010**

**10/12/99**

# Table of Contents

## *Introduction*

Transaction Set 410: Rail Carrier Freight Details and Invoice
Functional Group: IR

This Draft Standard for Trial Use contains the format and establishes the data contents of the Rail Carrier Freight Details and Invoice Transaction Set (410) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide detailed information of charges associated with a rail movement. The information is provided by a rail carrier and is sent to the freight payer.

**A EDI 997 functional acknowledgement and 824 application acknowledgement are required for this transaction set. If your company is unable to send an 824 application acknowledgement, an email or fax indicating only the freight bills that were rejected from your application will suffice. Your implementation specialist will provide you with the correct email address or fax number during the testing phase of your 410 implementation.**

Burlington Northern Santa Fe will submit the Rail Carrier Freight Details and Invoice as published by DISA for ASC X12. The following guidelines are all-inclusive and identify unique requirements for use of the ASC X12 410 transaction set.

To obtain X12 standards and documentation, contact:

Data Interchange Standards Association, Inc.
1800 Diagonal Road, Suite 355
Alexandria, VA 22314-2840
703-548-7005

Or:

Washington Publishing Company
Orders: 800-972-4334
Phone: 301-590-9337
www.wpc-edi.com

## *Sample 410*

Carload

GS*IR*BNSF*RECEIVER ID*20000101*0032*46480*X*004010
ST*410*464800001
B3B*18064947*PP*19991005*102000*19991020*BNSF*R*558760***USD
N9*BM*558760**19991001
N7*NW*178483*100129*N*65100******RR*****A******C113
N8*382408*19991001
F9*92007*ST LOUIS*MO*****567500
D9*92239*SPRINGFIELD*MO*****576550
N1*SH*SHIPPER NAME
N4*ST LOUIS*MO
N1*CN*CONSIGNEE NAME
N4*SPRINGFIELD*MO
R2*BNSF*S****R
LX*1
L5*1*WHEAT GRAIN MILL FEED, OTHER THAN PELLETIZED, VI*2041290*T
L5*1*WHT MIDS GRM W
L0*1***100129*N*1*R*1*CLD
L1*1*1000*PC*100000**100000**********USD
PI*TS*0000004022***BNSF*BNSF**0000052360
L3*****102000**102000
SE*20*464800001

Intermodal

GS*IR*BNSF*RECEIVER NAME*20000101*0031*3296*X*004010
ST*410*135683
B3B*18071803*PP*19991005*130000*19991020*BNSF*R*2950000***USD
N9*BM*2950000**19990929
N7*TRIU*564954*10224*N*7500**********4000*A****102
N8*435527*19990929
F9*93732*BIRMINGHAM*AL*****472600
D9*16002*SOUTH SEATTLE*WA*****845203
N1*SH*INTERMODAL SHIPPER
N4*BIRMINGHAM*AL
N1*CN*INTERMODAL CONSIGNEE
N4*SEATTLE*WA
N1*PF*INTERMODAL FREIGHT PAYOR
N3*123 STREET
N4*MEMPHIS*TN*381209401
LX*1
L5*1*FURNITURE, NEC, METALLIC OR WOODEN*2519990*T
L5*1*FURNITURE, NEC
L0*1***10224*N*1*T*64*CTN
L1*1*1300*PA*130000**130000**********USD
PI*PR*9999999999***MDZZ*QTISO**0000000000
L3*****130000**130000
SE*22*135683

## *The Transaction*

A transaction set is used to describe the electronic transmission of single document between one company's computer and another company's computer.

EDI transactions are defined by segments, and each item within the segment becomes a data element. Data element Type, Requirement Designator, and Length are described below. These identifiers are listed for each Data Element throughout the remainder of this guide.

## *Data Element Type*

Specifies the characters that may be used.

| | | |
|---|---|---|
| Nn | Numeric | N indicates that it is numeric; n indicates decimal place. |
| R | Decimal | R indicates an optional decimal point for integer values or a required decimal for decimal values. BNSF can accept positive and decimal values. |
| ID | Identifier | A specific code taken from a table defined in the Data Element Dictionary such as unit of measure. |
| AN | String | A series of alpha/numeric characters, such as a company name. |
| DT | Date | YYYYMMDD (ISO standard date) |
| TM | Time | HHMM express in 24-hour clock format. |

## *Data Element Requirement Designator*

Indicates when this element must be included in an electronic document.

| | | |
|---|---|---|
| M | Mandatory | The data element shall be used in the segment. |
| C | Conditional | The data element may be required in the segment based on whether another element is used. |
| O | Optional | The data element may or may not be used in the segment at the option of the user. |

## *Data Element Length*

The minimum length and maximum length of the characters in the data element.

| | |
|---|---|
| 1/15 | Indicates that "1" is the minimum acceptable value and "15" is the maximum. |

## *General Information*

To establish an "Electronic Data Interchange Partnership" with Burlington Northern Santa Fe, you may contact your BNSF Representative or call BNSF's Customer Support number (1-800-809-2673 Option 4).

The minimum requirements for EDI participation are:

Personal Computer (IBM compatible)
2400 Baud Modem (Hayes compatible)
Single line telephone (Data capable)*

* BNSF offers toll-free 800 service for data transmission.

Also necessary is a translation program or software capable of converting your billing information into the proper EDI format.

Another option for establishing an EDI partnership with Burlington Northern Santa Fe is to utilize the services of a "Third Party" vendor.

Whatever selection your business needs dictate, Burlington Northern Santa Fe will assist you in establishing your EDI partnership.

## *COMMUNICATIONS PROTOCOL*

As successful communications are necessary to exchange data between two computers, Burlington Northern has attempted to offer you a complete array of communication possibilities, all of which are available for your use, 24 hours, every day of the year. This allows you to select the best option to fit your business needs.

Options available are:

1. **DIRECT.** Toll-free 800 service via asynchronous 2400/9600/14400 BPS.
   Toll-free 800 service via bisynchronous 4800/9600 BPS.
   SMTP (simple mail transport protocol) mail via the Internet.
   FTP (file transfer protocol) via the Internet.
2. **THIRD PARTY.** Use any independent third party to message switch/translate your data to BNSF.

Burlington Northern Santa Fe offers two dial-in communications options.

1. You may dial BNSF direct using 2400, 9600, or 14400 BPS Asynchronous communications protocol. The asynchronous communication parameters are as follows:

| | |
|---|---|
| Transmission speed | 2400/9600/14400 BPS |
| Line protocol | Half-duplex |
| Parity | Even |
| Data bits | 7 |
| Stop bits | 1 |
| Modem | Bell 212A, v.32, v.32bis, or compatible |
| Data characters | ASCII |
| Flow control | XON/XOFF (hex 11 and 13) |
| End of transmission | EOT (hex 4) |

All messages must be proceeded by a line with the User ID followed by the normal input data.

Example of an Asynchronous transmission:

```
USERID
GS*
ST*
        DATA
SE*
ST*
        DATA
SE*
GE*
```

2. BNSF utilizes IBM standard 3780 protocol for bisynchronous communications with a block size of 256 characters.

   New line characters should separate each segment. BNSF will remove any control characters and will not perform any type of conversion or translation of those characters.

| | |
|---|---|
| Transmission speed | 4800 and 9600 BPS |
| Line protocol | Half Duplex |
| Transparency | Off |
| Block check | Odd |
| Data bits | 8 |
| Data transfer | Point to point |
| Transmission protocol | IBM 3780 |
| Modem | v.32, BELL 208, or compatible |
| Data character | EBCDIC |
| Newline character | Hex 15 |
| # character | Hex 7B |
| * character | Hex 5C |
| STX (start of text) | Hex 02 |
| ETX (end of text) | Hex 03 |
| EOB/ETB (end of block) | Hex 26 |
| EOT (end of transmission) | Hex 37 |
| IRS | Hex 1F |

Example of a Bisynchronous transmission:

All messages must be preceded with a User ID. The User ID must be bounded with an STX (Start of Text) and a "#" at the beginning (Synchronous communications) and an ETB (End of Transmission Block) at the end. Subsequent text should also be bounded by an STX and ETB, with an ETX (End of Text) and EOT (End of Transmission) closing the transmission.

Your 997 acknowledgement transmission would be send as follows::

STX
#USERID
ETB
STX
VP^997 (the ^ indicates a blank space between VP and 997)
SIG  Any 3 alpha characters are acceptable.
ETB
ETX
EOT

OR

STX
$$REQUEST ID=*USERID* BATCHID='997'
ETB
ETX
EOT

## ***SEGMENT ISA–****Interchange Control Header*

**MANDATORY**

Maximum Use: 1 per transaction set

Example:
ISA*00*.....*00*.....*02*BNSF.....*02*CUSTOMERID.....*000101*0034*U*00401*123456789*1*P*~

| # | NAME | DATA ELEMENT # / TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Authorization Information Qualifier | I01 / ID | 02/02 | M | 00 |
| 2 | Authorization Information | I02 / AN | 10/10 | M | |
| 3 | Security Information Qualifier | I03 / AN | 02/02 | M | 00 |
| 4 | Security Information | I04 / AN | 10/10 | M | |
| 5 | Interchange ID Qualifier | I05 / ID | 02/02 | M | 02 |
| 6 | Interchange Sender ID | I06 / ID | 15/15 | M | customer id/name |
| 7 | Interchange ID Qualifier | I07 / ID | 02/02 | M | 02 |
| 8 | Interchange Receiver ID | I08 / ID | 15/15 | M | BNSF |
| 9 | Interchange Date | I09 / DT | 06/06 | M | YYMMDD |
| 10 | Interchange Time | I10 / TM | 04/04 | M | HHMM |
| 11 | Interchange Control Standard ID | I11 / ID | 01/01 | M | U - US EDI Community of ASC X12, TDCC, and UCS |
| 12 | Interchange Control Version Number | I12 / ID | 05/05 | M | 00401 – X12 ver 4010 |
| 13 | Interchange Control Number | I13 / N0 | 09/09 | M | |
| 14 | Acknowledgement Requested | I14 / ID | 01/01 | M | 0 - No acknowledgement requested<br>1 - Interchange acknowledgement requested |
| 15 | Test Indicator | I15 / ID | 01/01 | M | P - production<br>T - test |
| 16 | Subelement Separator | I16 / AN | 01/01 | M | BNSF uses ~ (tilde character) |

***NOTE: Spaces must be used when maximum length requirement is not met by the contents of the data element. Spaces are shown above in the example by periods (.) . These are not part of the ISA but used here to illustrate that spaces are required even if no data is supplied within the position.***

## ***SEGMENT GS–****Beginning Segment*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: GS*IR*BNSF*RECEIVER ID*20000101*1300*1001*X*004010

| # | NAME | DATA ELEMENT # / TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Functional Group | 479 / A | 02/02 | M | 'IR' only for 410 |
| 2 | Appl Send | 142 / AN | 02/12 | M | BNSF |
| 3 | Appl Receiver | 124 / A | 02/12 | M | Receiver id - customer id |
| 4 | Interchange Date | 29 / N | 08/08 | M | YYYYMMDD of transmission |
| 5 | Interchange Time | 30 / N | 04/04 | M | HHMM of transmission |
| 6 | Control Number | 28 / N | 01/09 | M | Sender's message control number. |
| 7 | Agency Code | 455 / N | 01/02 | M | X only for ASC X12 |
| 8 | Version | 480 / N | 01/12 | M | Senders transmission standard version. This manual represents version 004010. |

## ***SEGMENT ST*** *- Transaction Set Header*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: ST*410*10010001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Transaction ID Code | 143 /ID | 03/03 | M | 410 |
| 2 | Control Number | 329 /AN | 04/09 | M | Sender message GS06 control number plus a four character number starting with 0001. This number will be increased by one for each ST-SE freight bill in the transmission. |

## ***SEGMENT B3B*** *- Beginning Segment for Carrier's Invoice*

**MANDATORY**

Maximum Use: 1

Example: B3B*09387448*PP*20000101*52900*20000101*BNSF*X**L**USD

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Invoice Number | 76 / AN | 01/22 | M | BNSF document number |
| 2 | Shipment Method of Payment | 146 / ID | 02/02 | M | PP prepaid<br>CC collect |
| 3 | Date | 373 / DT | 08/08 | M | YYYYMMDD |
| 4 | Net Amount Due | 193 / N2 | 01/12<br>* limited to 9 for rail transactions | M | Total amount to be collected. Two decimal positions are implied unless otherwise specified as customer requirement. |
| 5 | Date | 373 / DT | 08/08 | M | YYYYMMDD |
| 6 | SCAC | 140 / ID | 02/04 | M | SCAC of railroad to collect charges (BNSF or MRL) |
| 7 | Transportation Method Type Code | 91 / ID | 01/02 | M | R rail<br>X intermodal (if equipment type equals CN, CC or TL) |
| 8 | No longer used | - - - - | - - - | - | - - - - |
| 9 | Weight Unit Code | 188 / ID | 01/01 | O | L pounds |
| 10 | Correction Indicator | 202 / ID | 02/02 | O | |
| 11 | Currency Code | 100 / ID | 03/03 | O | USD – US dollars |

***SEGMENT C4 -*** *Alternate Amount Due*

**OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Currency Code | 100 / ID | 03/03 | M | |
| 2 | Net Amount Due | 193 / N2 | 01/09 | M | |

## ***SEGMENT N9–****Reference Number*

**MANDATORY**

Maximum Use: 30

Example: N9*BM*EDIC0001**20000101

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Reference Qualifier | 128 / ID | 02/03 | M | BL government bill of lading number<br>BM bill of lading number<br>BN booking number<br>CO customer order number<br>EB embargo permit number<br>EN embargo number<br>GR grain order reference number<br>PO purchase order<br>SN seal number (also reflected in M7)<br>SO shipper order<br>WM weight agreement number<br>WY rail waybill number<br>* If other qualifiers are needed, refer to the data dictionary within the standards documentation |
| 2 | Reference Number | 127/ AN | 01/30 | C | |
| 3 | Description | 369 / AN | 01/45 | C | |
| 4 | Date | 373 / DT | 08/08 | O | YYYYMMDD |
| 5 | Time | 377 / TM | 04/08 | O | HHMM |
| 6 | Time Code | 623 / ID | 02/02 | O | AT – Alaska time<br>CT – Central time<br>ET – Eastern time<br>LT – Local time<br>MT – Mountain time<br>NT – Newfoundland time<br>PT – Pacific time<br>TT – Atlantic time |

## ***SEGMENT CM –****Cargo Manifest*

**OPTIONAL**

Maximum Use: 2

Example: CM*110*D*BALTIMORE*20000101*BOOKING1234*BNSF***NAME

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Voyage Number | 55 / AN | 02/10 | O | |
| 2 | Port Terminal Code | 115 / ID | 01/01 | C | D – port at which cargo is discharged from the first or only vessel which will carry the cargo.<br>L – first port at which the cargo is loaded to the first vessel.<br>1 – last port at which cargo is unloaded from a vessel. |
| 3 | Port Name | 114 / AN | 02/24 | O | |
| 4 | Date | 373 / DT | 08/08 | O | YYYYMMDD<br>If CM02 = D, this will represent the dock date.<br>If CM02 = L, this will represent the sail date. |
| 5 | Booking Number | 13 / AN | 01/17 | O | |
| 6 | SCAC | 140 / ID | 02/04 | O | Current carrier |
| 7 | SCAC | 140 / ID | 02/04 | O | Previous carrier |
| 8 | Date | 373 / DT | 08/08 | O | YYYYMMDD – manifest date |
| 9 | Vessel Name | 182 / AN | 02/28 | O | |
| 10 | Pier Number | 113 / AN | 01/04 | O | |
| 11 | Pier Name | 112 / AN | 02/14 | O | |
| 12 | Terminal Name | 174 / AN | 02/30 | O | |
| 13 | State/Province Code | 156 / ID | 02/02 | O | |
| 14 | Country Code | 26 / ID | 02/03 | O | |
| 15 | Reference Number | 127 / AN | 01/30 | O | |

***SEGMENT NTE–*** *Note/Special Instruction*

**OPTIONAL**

Maximum Use: 2

Example: NTE*ADD*FREE FORM ADDITIONAL INFORMATION

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Note Reference Code | 363 / ID | 03/03 | O | ADD – Additional information. |
| 2 | Description | 352 / AN | 01/80 | M | |

Note: These are free form comments that have been created by BNSF personnel. This segment will *not* contain any free form comments that may have been included on your bill of lading.

## ***SEGMENT N7–****Equipment Details*

**MANDATORY**

Maximum Use: 1 (225 Loops)

Example: N7*TRIU*564954*10224*N*7500**********4000*A****102 (intermodal)
N7*NW*178483*100129*N*65100******RR*****A******C113 (carload)

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Equipment Initial | 206 / AN | 01/04 | M | |
| 2 | Equipment Number | 207 / AN | 01/10 | M | |
| 3 | Weight | 81 / R | 01/10 | O | |
| 4 | Weight Qualifier | 187 / ID | 01/02 | C | E - estimated weight<br>G - gross weight<br>N- net weight |
| 5 | Tare Weight | 167 / N0 | 03/08 | C | Tare represents the weight of the equipment only. |
| 6 | Allowance | 232 / N0 | 02/06 | O | |
| 7 | Dunnage | 205 / N0 | 01/06 | O | |
| 8 | No longer used | - - - - | - - - - | - | |
| 9 | No longer used | - - - - | - - - | - | |
| 10 | Ownership Code | 102 / ID | 01/01 | O | |
| 11 | Equipment Description Code | 40 / ID | 02/02 | O | CC - container with chassis<br>CN - container without chassis<br>TL – trailer<br>RR – railcar<br>ID – idler |
| 12 | SCAC | 140 / ID | 02/04 | O | |
| 13 | No longer used | - - - - | - - - | - | |
| 14 | Position | 219 / AN | 01/03 | O | |
| 15 | Equipment Length | 567 / N0 | 04/05 | O | Format is Feet/Inches (40 foot reflected at 4000) |
| 16 | Tare Qualifier | 571 / ID | 01/01 | C | |
| 17 | No longer used | - - - - | - - - | - | |
| 18 | Equipment Check Digit | 761 / N0 | 01/01 | O | |
| 19 | No longer used | - - - - | - - - | - | |
| 20 | Height | 65 / R | 01/08 | O | |
| 21 | Width | 189 / R | 01/08 | O | |
| 22 | Equipment Type | 24 / ID | 04/04 | O | |
| 23 | SCAC | 140 / ID | 02/04 | O | |
| 24 | Car Type Code | 301 / ID | 01/04 | O | |

## ***SEGMENT VC–****Motor Vehicle Control*

**OPTIONAL**

Maximum Use: 21

Example: VC*VINNUMBER1234567

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Vehicle Identification Number | 539 / AN | 01/25 | M | |
| 2 | Deck Position | 836 / ID | 02/02 | O | |
| 3 | Vehicle Type | 837 / ID | 01/01 | O | 1 – automobile<br>2 – truck<br>3 – others<br>4 – used vehicles<br>5 - military |
| 4 | Dealer Code | 838 / AN | 02/09 | O | |
| 5 | Route Code | 1 / AN | 01/13 | O | |
| 6 | No longer used | - - - - | - - - | - | |
| 7 | No longer used | - - - - | - - - | - | |
| 8 | No longer used | - - - - | - - - | - | |
| 9 | No longer used | - - - - | - - - | - | |
| 10 | Factory Car Order Number | 583 / AN | 06/10 | O | |

## ***SEGMENT G4–****Scale Identification Number*

**OPTIONAL**

Maximum Use: 2

NOTE: *THIS SEGMENT NOT USED BY BNSF*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | City Name | 19 / AN | 02/19 | M | |
| 2 | State of Province Code | 156 / ID | 02/02 | M | |
| 3 | Name | 459 / AN | 02/30 | O | |
| 4 | Date | 373 / DT | 08/08 | M | |
| 5 | Time | 337 / TM | 04/06 | O | |
| 6 | Scale Type Code | 570 / ID | 04/06 | O | |

## ***SEGMENT M7–****Seal Numbers*

**OPTIONAL**

Maximum Use: 5

Example: M7*SEAL NUMBER

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Seal Number | 225 / AN | 02/15 | M | BNSF supports one occurrence. |
| 2 | Seal Number | 225 / AN | 02/15 | O | |
| 3 | Seal Number | 225 / AN | 02/15 | O | |
| 4 | Seal Number | 225 / AN | 02/15 | O | |

***SEGMENT N5–*** *Car Ordered*

**OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT NOT USED BY BNSF*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Equipment Length | 567 / R | 04/05 | M | |
| 2 | Weight Capacity | 233 / N | 02/03 | O | |
| 3 | Cubic Capacity | 203 / N | 02/04 | O | |
| 4 | Car Type Code | 301 / ID | 01/04 | O | |
| 5 | No longer used | - - - - | - - - | - | |
| 6 | Height | 65 / R | 01/08 | O | |

## ***SEGMENT IC –*** *Intermodal Chassis Equipment*

**OPTIONAL**

Maximum Use: 1

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Equipment Initial | 206 / A | 01/04 | M | |
| 2 | Equipment Number | 207 / N | 01/10 | O | |
| 3 | Tare Weight | 167 / R | 03/08 | C | |
| 4 | Tare Qualifier Code | 571 / ID | 01/01 | C | |
| 5 | SCAC | 140 / ID | 02/04 | O | |
| 6 | Length | 567 / R | 04/05 | O | |
| 7 | SCAC | 140 / ID | 02/04 | O | |
| 8 | Chassis Type | 845 / ID | 02/02 | O | |

## ***SEGMENT IM –*** *Intermodal Information*

**OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT NOT USED BY BNSF*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Water Movement | 533 / ID | 01/01 | O | |
| 2 | Special Handling Code | 152 / ID | 02/03 | O | |
| 3 | Inland Transportation Code | 534 / ID | 02/02 | O | |

## ***SEGMENT M12 –*** *Inbond Identifying Information*

**OPTIONAL**

Maximum Use: 1

Example: M12*61*1234567*NA**$20PER***S4

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Entry Type Code | 581 / ID | 02/02 | M | 61- IT number<br>62 - TE number |
| 2 | Entry Number | 601 / AN | 01/15 | C | |
| 3 | Location Identifier | 310 / AN | 01/30 | O | |
| 4 | Location Identifier | 310 / AN | 01/30 | O | |
| 5 | Customs Shipment Value | 602 / R | 02/08 | O | |
| 6 | In-bond Control Number | 603 / AN | 01/25 | C | |
| 7 | No longer used | - - - - | - - - | - | |
| 8 | Reference Number Qualifier | 128 / ID | 02/03 | C | |
| 9 | Reference Number | 127 / AN | 01/30 | O | |
| 10 | Vessel Name | 182 / AN | 02/28 | C | |

Note: Segment is mandatory for rail in-bond shipments.
M1206 In-bond Control Number contains conventional in-bond number

## ***SEGMENT GA –*** *Canadian Grain Information*

**OPTIONAL**

Maximum Use: 15

NOTE: *THIS SEGMENT IS NOT USED BY BNSF*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Fumigated Cleaned Ind | 1275 / ID | 01/01 | O | |
| 2 | Commodity Code | 22 / AN | 01/30 | O | |
| 3 | Insp/Weigh Indicator Code | 1576 / ID | 01/02 | O | |
| 4 | Reference Number Qualifier | 128 / ID | 02/03 | C | |
| 5 | Reference Number | 127 / AN | 01/30 | C | |
| 6 | Week | 642 / N0 | 04/04 | O | |
| 7 | Unload Terminal | 899 / ID | 03/04 | O | |
| 8 | Date | 373 / DT | 08/08 | O | |
| 9 | Number | 1470 / N0 | 01/09 | O | |
| 10 | Mach Sep Ind Code | 1276 / ID | 02/02 | O | |
| 11 | CWB Market Class Code | 1277 / ID | 01/01 | O | |
| 12 | CWB Market Type Code | 1278 / ID | 01/01 | O | |
| 13 | Yes/No Cond Response Code | 1073 / ID | 01/01 | O | |
| 14 | Location Identifier | 310 / AN | 01/30 | O | |
| 15 | State or Province Code | 156 / ID | 02/02 | C | |
| 16 | Percent Qualifier | 1004 / ID | 01/02 | C | |
| 17 | Percent | 954 / R | 01/10 | C | |

## ***SEGMENT N8–****Waybill Reference*

**MANDATORY**

Maximum Use: 225

Example: N8*382408*19991001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Waybill Number | 186 / N0 | 01/06 | M | |
| 2 | Waybill Date | 373 / DT | 08/08 | M | YYYYMMDD |
| 3 | Cross Reference Type Code | 231 / ID | 01/01 | C | L – lead car<br>T – trailer |
| 4 | Equipment Initial | 206 / AN | 01/04 | C | |
| 5 | Equipment Number | 207 / AN | 01/10 | C | BNSF supports 6 character max |
| 6 | Waybill Number | 186 / N0 | 01/06 | C | |
| 7 | Waybill Date | 373 / DT | 08/08 | C | |
| 8 | City Name | 19 / AN | 02/30 | C | |
| 9 | State or Province | 156 / ID | 02/02 | C | |
| 10 | SCAC | 140 / ID | 02/04 | C | |
| 11 | FSAC | 573 / ID | 01/05 | O | |

Note:

If this is a 410 freight bill for an intermodal shipment, the N803 will reflect T and the subsequent N804 and N805 will contain the equipment initial and number of the flat car. Flat car information may only be available on BNSF origin traffic, as flat car information is not always received on billing information from interline carriers.

If this is a 410 freight bill for a carload shipment, the N803 will reflect L and will cross reference the lead car of a multiple car shipment.

## *SEGMENT F9–Origin Station*

**MANDATORY**

Maximum Use: 1

Example: F9**CHICAGO*IL

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | FSAC | 573 / ID | 01/05 | O | |
| 2 | City | 101 / AN | 02/30 | M | **BNSF supports 19 character max** |
| 3 | State/Province | 156 / ID | 02/02 | M | |
| 4 | No longer used | - - - - | - - - | - | |
| 5 | No longer used | - - - - | - - - | - | |
| 6 | No longer used | - - - - | - - - | - | |
| 7 | No longer used | - - - - | - - - | - | |
| 8 | SPLC | 154 / ID | 06/09 | O | **BNSF supports 6 character max** |
| 9 | Postal Code | 116 / ID | 03/15 | O | |

## ***SEGMENT D9–****Destination Station*

**MANDATORY**

Maximum Use: 1

Example: D9**MINNEAPOLIS*MN

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | FSAC | 573 / ID | 01/05 | O | |
| 2 | City | 19 / AN | 02/30 | M | **BNSF supports 19 character max** |
| 3 | State/Province | 156 / ID | 02/02 | M | |
| 4 | No longer used | - - - - | - - - | - | |
| 5 | No longer used | - - - - | - - - | - | |
| 6 | No longer used | - - - - | - - - | - | |
| 7 | No longer used | - - - - | - - - | - | |
| 8 | SPLC | 154 / ID | 06/09 | O | **BNSF supports 6 character max** |
| 9 | Postal Code | 116 / ID | 03/15 | O | |

## ***SEGMENT N1 -*** *Name*

**MANDATORY**

Maximum Use: 1 (10 loops)

Example: N1*SH*SHIPPER NAME

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Entity ID Code | 98 / ID | 02/03 | M | See list below |
| 2 | Name | 93 / AN | 01/60 | C | |
| 3 | ID Code Qualifier | 66 / ID | 01/02 | C | |
| 4 | ID Code | 67 / AN | 02/80 | C | |
| 5 | Entity Relat Code | 706 / ID | 02/02 | O | |
| 6 | Entity Id Code | 98 / ID | 02/03 | O | |

N101 Entity ID Codes

11 Rule 11
AD Advise
AO Account of
AP Account of (Origin party)
AQ Account of (Destination party)
BN Beneficial owner
C1 In care of party #1
CB Customs broker.
CD Consignee - Advise of consigned shipment - used for written orders
CN Consignee. (Where the car will be spotted for unloading if there is no C1 segment).
CV Converting Party
LP Co-loader
NC Notify crosstown switch (highway)
NP Notify party for shippers orders
N1 Notify
N2 Release to
OO Order of - Shippers orders
PF Party to receive freight bill
PU Party at pick-up location
PV Certifying party
RD Destination ramp
RE Release to patron (shipper order / delivery order)
RO Origin ramp
SF Ship from
SH Shipper
SU Supplier/manufacturer
TT Transfer to
UC Ultimate consignee

***SEGMENT N2 –*** *Additional Name Information*

**OPTIONAL**

Maximum Use: 2

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Name | 93 / AN | 01/60 | M | |
| 2 | Name | 93 / AN | 01/60 | O | |

## ***SEGMENT N3–****Address Information*

**OPTIONAL**

Maximum Use: 2

Example: N3*1234 Main Street

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Address | 166 / AN | 01/55 | M | |
| 2 | Address | 166 / AN | 01/55 | O | |

## ***SEGMENT N4–****Geographic Location*

**OPTIONAL**

Maximum Use: 1

Example: N4*DALLAS*TX*77075

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | City | 19 / AN | 02/30 | O | |
| 2 | State/Province | 156 / ID | 02/02 | O | |
| 3 | Postal Code | 116/ ID | 03/15 | O | |
| 4 | Country Code | 26 / ID | 02/03 | O | |
| 5 | Location Qualifier | 309 / ID | 01/02 | C | |
| 6 | Location Identifier | 310 / AN | 01/30 | C | |

## ***SEGMENT PER*** *– Administrative Communications Contact*

**OPTIONAL**

Maximum Use: 2

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Contact Function Code | 366 / ID | 02/02 | M | |
| 2 | Name | 93 / AN | 01/60 | O | |
| 3 | Communication Number Qualifier | 365 / ID | 02/02 | C | |
| 4 | Communication Number | 364 / AN | 01/80 | C | |
| 5 | Communication Number Qualifier | 365 / ID | 02/02 | C | |
| 6 | Communication Number | 364 / AN | 01/80 | C | |
| 7 | Communication Number Qualifier | 365 / ID | 02/02 | C | |
| 8 | Communication Number | 364 / AN | 01/80 | C | |
| 9 | Contact Inquiry Reference | 443 / AN | 01/20 | O | |

## ***SEGMENT BL*** *– Billing Information*

**OPTIONAL**

Maximum Use: 12

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Rebill Reason Code | 747 / ID | 02/02 | M | |
| 2 | FSAC | 573 / ID | 01/05 | X | |
| 3 | FSAC | 573 / ID | 01/05 | X | |
| 4 | SPLC | 154 / ID | 06/09 | X | |
| 5 | City Name | 19 / AN | 02/30 | X | |
| 6 | State or Province Code | 156 / ID | 02/02 | O | |
| 7 | Country Code | 26 / ID | 02/03 | O | |
| 8 | SPLC | 154 / ID | 06/09 | X | |
| 9 | City Name | 19 / AN | 02/30 | X | |
| 10 | State or Province Code | 156 / ID | 02/02 | O | |
| 11 | Country Code | 26 / ID | 02/03 | O | |
| 12 | SCAC | 140 / ID | 02/04 | O | |
| 13 | SCAC | 140 / ID | 02/04 | O | |
| 14 | SCAC | 140 / ID | 02/04 | O | |
| 15 | SCAC | 140 / ID | 02/04 | O | |
| 16 | SCAC | 140 / ID | 02/04 | O | |
| 17 | SCAC | 140 / ID | 02/04 | O | |

## ***SEGMENT S1*** *- Stop Off Name*

**OPTIONAL**

Maximum Use: 1

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Stop Sequence Number | 165 / N0 | 01/03 | M | |
| 2 | Name | 459 / AN | 02/30 | M | |
| 3 | ID Code Qualifier | 66 / ID | 01/02 | C | |
| 4 | ID Code | 67 / AN | 02/80 | C | |
| 5 | SCAC | 140 / ID | 02/04 | O | |
| 6 | Accomplishment | 190 / ID | 01/01 | M | |

***SEGMENT S2-****Stop Off Address*

**OPTIONAL**

Maximum Use: 1 (2 per loop)

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Stop Sequence Number | 165 / N0 | 01/03 | M | |
| 2 | Address | 166 / AN | 01/55 | M | |
| 3 | Address | 166 / AN | 01/55 | O | |

## ***SEGMENT S9–****Stop off Station*

**OPTIONAL**

Maximum Use: 1

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Stop Sequence Number | 165 / N0 | 01/03 | M | |
| 2 | SPLC | 154 / ID | 06/09 | O | |
| 3 | City | 19 / AN | 02/30 | M | |
| 4 | State / Province | 156 / ID | 02/02 | M | |
| 5 | Country Code | 26 / ID | 02/03 | O | |
| 6 | Stop Reason | 163 / ID | 02/02 | M | |
| 7 | Location Qualifier | 309 / ID | 01/02 | C | |
| 8 | Location Identifier | 310 / AN | 01/30 | C | |

## *SEGMENT R2–Route Information*

**MANDATORY**

Maximum Use: 13

Example: R2*BNSF*S*BMONT***R
R2*UP*1 (Carload)

R2*BNSF*S***25*X(Intermodal)

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | SCAC | 140 / ID | 02/04 | M | BNSF |
| 2 | Sequence Code | 133 / ID | 01/02 | M | This code indicates the order of the routing. Valid codes for the first R2 segment include the list below. Subsequent R2s (to indicate further interline movement) are indicated numerically.<br>D - destination switch carrier<br>S - shippers route<br>R - rule 11<br>A - agents route<br>I - if used, the carrier at origin will receive origin switch billing information used in handling the equipment properly. |
| 3 | City Name | 19 / AN | 02/30 | M | Refer to the AAR Rule 260 Junction abbreviations. |
| 4 | SPLC | 154 / ID | 06/09 | O | |
| 5 | Intermodal Service Code | 177 / ID | 01/02 | C | See next page. |
| 6 | No longer used | - - - - | - - - | - | |
| 7 | Intermediate Switch Carrier | 296 / ID | 02/04 | O | |
| 8 | Intermediate Switch Carrier | 296 / ID | 02/04 | O | |

Note: Each set of shipment information must include at least one R2 segment. When including interline city names, the AAR Rule 260 abbreviations should be used.

R205 Intermodal Service Codes:

| | |
|---|---|
| 20 | Rail owned equipment, door to door service. |
| 22 | Rail owned equipment, door to ramp service. |
| 25 | Rail owned equipment, ramp to ramp service. |
| 27 | Rail owned equipment, ramp to door service. |
| 40 | Steamship owned equipment moving domestically, door to door service. |
| 42 | Steamship owned equipment moving domestically, door to ramp service. |
| 45 | Steamship owned equipment moving domestically, ramp to ramp service. |
| 47 | Steamship owned equipment moving domestically, ramp to door service. |
| 60 | Private owned equipment, door to door service. |
| 62 | Private owned equipment, door to ramp service. |
| 65 | Private owned equipment, ramp to ramp service. |
| 67 | Private owned equipment, ramp to door service. |
| 80 | Steamship owned equipment moving internationally, door to door service. |
| 82 | Steamship owned equipment moving internationally, door to ramp service. |
| 85 | Steamship owned equipment moving internationally, ramp to ramp service. |
| 87 | Steamship owned equipment moving internationally, ramp to door service. |

## ***SEGMENT R9 –*** *Route Code*

**OPTIONAL**

Maximum Use: 1

NOTE:*THIS SEGMENT IS NOT USED BY BNSF*.

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Route Code | 1 / AN | 01/13 | M | |
| 2 | Agent/Ship Route Code | 192 / ID | 01/01 | O | |
| 3 | Intermodal Service Code | 177 / ID | 01/02 | O | |
| 4 | SCAC | 140 / ID | 02/04 | O | |
| 5 | Action Code | 306 / ID | 01/02 | O | |
| 6 | SCAC | 140 / ID | 02/04 | O | |

## ***SEGMENT PS–****Protective Service Instruction*

**OPTIONAL**

Maximum Use: 5

Example: PS*800*M*FA*32

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Protective Service Rule | 746 / ID | 03/09 | M | See list on following page for available options. |
| 2 | Protective Service | 241 / ID | 01/04 | M | B body ice<br>BC body ice consumed or removed<br>D discontinue service<br>HDN do not heat<br>HDNC do not heat in Canada<br>HSC standard heating in Canada<br>M standard mechanical protective service<br>MN modified mechanical protective service<br>MNU do not operate |
| 3 | Unit of Measure Code | 355 / ID | 02/02 | O | FA Fahrenheit<br>CE Centigrade |
| 4 | Temperature | 408 / R | 01/04 | C | Negative temperatures are accepted if preceded by minus (-) indicator. |
| 5 | SCAC | 140 / ID | 02/04 | O | |
| 6 | FSAC | 573 / ID | 01/05 | O | |
| 7 | City Name | 19 / AN | 02/30 | O | |
| 8 | State/Province | 156 / AN | 02/02 | O | |
| 9 | No longer used | - - - - | - - - | - | |
| 10 | Pre-cooled Code | 745 / ID | 01/01 | O | |
| 11 | Yes/No Cond Response Code | 745 / ID | 01/01 | O | |
| 12 | Yes/No Cond Response Code | 745 / ID | 01/01 | O | |
| 13 | Yes/No Cond Response Code | 745 / ID | 01/01 | O | |
| 14 | Temperature | 408 / R | 01/04 | C | |

**Element 746 Protective service rules**

| Rule | Description |
|---|---|
| 226 | Stop for icing. |
| 240 | Initially iced by shipper- Do not re-ice. |
| 242 | Top Iced by shipper at origin. |
| 245 | Pre-cooled and pre-iced by shipper- Do not re-ice. |
| 509 | Modified Carrier's Protective Service (Intrastate only). |
| 510 | Shipper's Protective Service. |
| 515 | Carrier's Protective Service. |
| 580 | Special heater protective service. |
| 705 | Optimum temperature of zero degrees or less. |
| 710 | Optimum temperature above zero. |
| 711 | Place under modified MPS at first regular inspection station. |
| 712 | Shippers's specified MPS at origin or stop point. |
| 715 | Optimum temperature of zero degrees or less (Car owned /Leased by shipper). |
| 720 | Do not operate unit. |
| 765 | Optimum temperature above zero. Body iced by shipper. |
| 805 | Optimum temperature above zero. |
| 810 | Ventilators opened at origin. |
| 830 | Optimum temperature of zero degrees or less. |

## ***SEGMENT LX–****Assigned Number*

**MANDATORY**

Maximum Use: 1

Example: LX*1

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Assigned Number | 554 / N | 01/06 | M | Start with one (1) and increment by one (1). |

## ***SEGMENT L5–****Descriptions, Marks, and Numbers*

**MANDATORY**

Maximum Use: 15 (per loop)

Example: L5*01*BOILER PARTS,NEC,CAST IRO*3443360*T

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Line Number | 213 / N0 | 01/03 | O | Line number for the associated commodity |
| 2 | Lading Description | 79 / AN | 01/50 | O | |
| 3 | Commodity Code | 22 / AN | 01/30 | C | Standard Transportation Commodity Code - STCC - that describes the lading.<br>**BNSF supports 7 character max** |
| 4 | Commodity Code Qualifier | 23 / ID | 01/01 | C | T – Standard Transportation Commodity Code |
| 5 | Packaging Code | 103 / ID | 03/05 | O | |
| 6 | Marks - Numbers | 87 / AN | 01/48 | O | |
| 7 | Marks – Number Qualifier | 88 / ID | 01/02 | O | |
| 8 | Commodity Code Qualifier | 23 / ID | 01/01 | C | |
| 9 | Commodity Code | 22 / AN | 01/30 | C | |
| 10 | Compartment ID Code | 595 / ID | 01/01 | O | |

## ***SEGMENT L0–****Line Item, Quantity, and Weight*

**OPTIONAL**

Maximum Use: 10 (per loop)

Example: L0*1***80000*N***1*CLD

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Lading Line Item Number | 213 / N0 | 01/03 | O | Line number for the associated L5 segment |
| 2 | Billed/Rated Quantity | 220 / R | 01/11 | C | |
| 3 | Billed/Rated Qualifier | 221 / ID | 02/02 | C | |
| 4 | Weight | 81 / R | 01/10 | C | Weight of commodity for the entire shipment (if multiple bill - reflecting M in BNX03). |
| 5 | Weight Qualifier | 187 / ID | 01/02 | C | N net<br>All weights provided in this segment are assumed to be net. |
| 6 | Volume | 183 / R | 01/08 | C | |
| 7 | Volume Unit Qualifier | 184 / ID | 01/01 | C | |
| 8 | Lading Quantity | 80 / N0 | 01/07 | C | Number of car/trailer load equivalents in this transaction |
| 9 | Packaging Form Code | 211 / ID | 03/03 | C | see below |
| 10 | Dunnage Description | 458 / AN | 02/25 | O | |
| 11 | Weight Unit Code | 188 / ID | 01/01 | O | |
| 12 | Type of Service Code | 56 / ID | 02/02 | O | |
| 13 | Quantity | 380 / R | 01/15 | C | |
| 14 | Packaging Form Code | 211 / ID | 03/03 | O | |
| 15 | Yes/No Condition Resp Code | 1073 / ID | 01/01 | C | |

Quantity Qualifiers:

BN BULK
BO BOX
BR BARREL
BS BASKET
BU BUSHEL
BX BOX
B4 BARREL, IMPERIAL
CA CASE
CAN CAN
CAS CASE
CF CUBIC FEET
CH CONTAINER
CL CYLINDER
CLD CARLOAD (RAIL)
CM CENTIMETER

| | |
|---|---|
| CN | CAN |
| CNT | CONTAINER |
| COL | COIL |
| CP | CRATE |
| CR | CAR LOAD |
| CRT | CRATE |
| CT | CARTON |
| CTN | CARTON |
| CX | COIL |
| CYL | CYLINDER |
| C4 | CARLOAD (RAIL) |
| DR | DRUM |
| DRM | DRUM |
| DT | DRY TON |
| DZ | DOZEN |
| FO | FLUID OUNCE |
| FSK | FLASK |
| GA | GALLON |
| GL | GRAMS PER LITER |
| GN | GROSS GALLON |
| GR | GRAM |
| HPC | HOPPER PNEUMATIC DISCHARGE |
| JAR | JAR |
| JR | JAR |
| JU | JUG |
| KE | KEG |
| KEG | KEG |
| KG | KILOGRAM |
| LB | POUND |
| LSE | LOOSE |
| LT | LITER |
| ML | MILLILITER |
| MM | MILLIMETER |
| MN | METRIC NET TON |
| MP | METRIC TON |
| MR | METER |
| NC | CAR |
| NG | NET GALLONS |
| PA | PAIL |
| PAL | PAIL |
| PCK | PACKED - NOT OTHERWISE SPECIFIED |
| PCS | PACKAGE |
| PH | PACK (PAK) |
| PK | PACKAGE |
| PKG | PACKAGE |
| PL | PALLET/UNIT LOAD |
| PLT | PALLET |
| PN | POUNDS NET |
| PT | PINT |
| QT | QUART |

| | |
|---|---|
| RA | RACK |
| RCK | RACK |
| RE | REEL |
| REL | REEL |
| RL | ROLL |
| ROL | ROLL |
| SAK | SACK |
| SJ | SACK |
| SKD | SKID |
| SO | SPOOL |
| SPL | SPOOL |
| SV | SKID |
| TB | TUBE |
| TBE | TUBE |
| TC | TRUCKLOAD |
| TE | TOTE |
| TH | THOUSANDS |
| TK | TANK |
| TKR | TANK CAR |
| TLD | INTERMODAL TRAILER/CONTAINER |
| TN | NET TON (2000 LB) |
| TNK | TANK |
| TO | TROY OUNCE |
| UN | UNIT |
| UNT | UNIT |
| VEH | VEHICLE |
| WE | WET TON |
| WHE | ON OWN WHEELS |
| Z3 | CASK |
| 1E | EMPTY CAR |
| 12 | PACKET |
| 18 | 55 GALLON DRUM |
| 2W | BIN |
| 20 | 20 FOOT CONTAINER |
| 21 | 40 FOOT CONTAINER |
| 26 | ACTUAL TONS |
| 48 | BULK CAR LOAD |

## ***SEGMENT MEA –*** *Measurements*

**OPTIONAL**

Maximum Use: 3

NOTE:*THIS SEGMENT NOT USED BY BNSF*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Measurement Ref ID Code | 737 / ID | 02/02 | O | |
| 2 | Measurement Qualifier | 738 / ID | 01/03 | O | |
| 3 | Measurement Value | 739 / R | 01/20 | C | |
| 4 | Unit/Basis Meas Code | 355 / ID | 02/02 | C | |
| 5 | Range Minimum | 740 / R | 01/20 | C | |
| 6 | Range Maximum | 741 / R | 01/20 | C | |
| 7 | Measurement Sig Code | 935 / ID | 02/02 | O | |
| 8 | Measurement Attrib Code | 936 / ID | 02/02 | C | |
| 9 | Layer/Posit Code | 752 / ID | 02/02 | O | |
| 10 | Measurement Method | 1373 / ID | 02/04 | O | |

## *SEGMENT L1–Rate and Charges*

**MANDATORY**

Maximum Use: 1

Example: L1*1*1020*PC*102000**102000**********USD

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Lading Line Item Number | 213 / N0 | 01/03 | O | Associated line from L5 segment |
| 2 | Freight Rate | 60 / R | 01/09 | O | Shipment rate per unit. Decimal point supplied if fractional dollar amount. |
| 3 | Rate Qualifier | 122 / ID | 02/02 | O | GT per gross ton<br>MM per metric ton<br>PA per container<br>PC per car<br>PH per hundred weight<br>PM per mile<br>PP per piece<br>PT per net ton<br>PU per unit<br>PV per vehicle<br>TN per train<br>TR per trailer |
| 4 | Amount | 610 / N2 | 01/15 | C | Two decimal points implied. |
| 5 | Advances | 191 / N2 | 01/09 | O | Two decimal points implied. |
| 6 | Prepaid Amount | 117 / N2 | 01/09 | C | Two decimal points implied. |
| 7 | Rate Combination Point Code | 120 / AN | 03/09 | O | |
| 8 | Special Charge/Allow Code | 150 / ID | 03/03 | O | |
| 9 | Rate Class Code | 121 / ID | 01/03 | O | |
| 10 | Entitlement Code | 39 / ID | 01/01 | O | |
| 11 | Charge Method of Payment | 16 / ID | 01/01 | O | |
| 12 | Special Change Description | 276 / AN | 02/25 | O | |
| 13 | Tariff Appl Code | 257 / ID | 01/01 | O | |
| 14 | Declared Value | 74 / N2 | 02/12 | C | |
| 15 | Rate/Value Qualifier | 122 / ID | 02/02 | C | |
| 16 | Lading Liability Qualifier | 372 / ID | 01/01 | O | |
| 17 | Billed/Rated Quantity | 220 / R | 01/11 | C | |
| 18 | Billed/Rated Qualifier | 221 / ID | 02/02 | C | |
| 19 | Percent | 954 / R | 01/10 | O | |
| 20 | Currency Code | 100 / ID | 03/03 | O | USD US Dollars |
| 21 | Amount | 610 / N2 | 01/15 | O | |

***SEGMENT DTM –*** *Date/Time Reference*

**OPTIONAL**

Maximum Use: 2

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Date/ Time Qualifier | 374 / ID | 03/03 | M | |
| 2 | Date | 373 / DT | 08/08 | C | |
| 3 | Time | 337 / TM | 04/08 | C | |
| 4 | Time Code | 623 / ID | 02/02 | O | |

## ***SEGMENT PI –*** *Price Authority Information*

**OPTIONAL**

Maximum Use: 30

Example: PI*PR*9999999999***MDZZ*QTISO**0000000000 (price authority example)
PI*TS*0000004022***BNSF*BNSF**0000052360 (tariff example)

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Reference Number Qualifier | 128 / ID | 02/03 | M | CT – contract<br>PR – price authority<br>TS – tariff authority |
| 2 | Reference Number | 127 / AN | 01/30 | M | |
| 3 | Primary Pub Authority | 436 / ID | 02/02 | O | Type of reference<br>OP – other publication<br>TP – tariff publication |
| 4 | Regulatory Agency Code | 930 / ID | 03/05 | O | Code relating to the governing agency in effect for the move. |
| 5 | Tariff Agency Code | 168 / ID | 01/04 | O | BNSF. The SCAC of the railroad who issued the price authority. |
| 6 | Issuing Carrier ID | 965 / AN | 01/10 | O | Identifying element used by the price authority issuer in conjunction with the authority number to help identify the primary price authority (makes the number unique within a carrier). Some examples may be QT123456 or BNQ12345. QT and BNQ are the unique prefix that distinguishes this price authority. |
| 7 | Contract Suffix | 660 / AN | 01/02 | O | |
| 8 | Tariff Item Number | 169 / AN | 01/16 | O | Number assigned in the tariff to specify a rate or group of rates that apply to one or more items in the shipment. |
| 9 | Tariff Supp ID | 173 / AN | 01/02 | O | Identifier for the tariff supplement which contains the rate. |
| 10 | Tariff Section | 172 / AN | 01/02 | O | Number used as an extension of the basic tariff number to identify the rates published within specific sections of the tariff. |
| 11 | Contract Suffix | 660 / AN | 01/02 | O | |
| 12 | Date | 373 / DT | 08/08 | O | |
| 13 | Date | 373 / DT | 08/08 | O | |
| 14 | Alternation Preced Code | 629 / ID | 01/01 | O | |
| 15 | Alternation Preced Code | 629 / ID | 01/01 | O | |

## ***SEGMENT T1–****Transit Inbound Origin*

**OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Assigned Number | 554 / N0 | 01/06 | M | |
| 2 | Waybill Number | 186 / N0 | 01/06 | O | |
| 3 | Date | 373 / DT | 08/08 | O | |
| 4 | SCAC | 140 / ID | 02/04 | O | |
| 5 | City Name | 19 / AN | 02/30 | C | |
| 6 | State or Province | 156 / ID | 02/02 | C | |
| 7 | SPLC | 154 / ID | 06/09 | O | |
| 8 | Transit Register No | 229 / AN | 01/06 | O | |
| 9 | Transit Level Code | 461 / ID | 01/03 | O | |

## ***SEGMENT T2–****Transit Inbound Lading*

**OPTIONAL**

Maximum Use: 30

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Assigned Number | 554 / N0 | 01/06 | M | |
| 2 | Lading Description | 79 / AN | 01/50 | O | |
| 3 | Weight | 81/ R | 01/10 | O | |
| 4 | Weight Qualifier | 187 / ID | 01/02 | O | |
| 5 | Freight Rate | 60 / R | 01/09 | C | |
| 6 | Rate/Value Qualifier | 122 / ID | 02/02 | C | |
| 7 | Freight Rate | 60 / R | 01/09 | C | |
| 8 | Rate/Value Qualifier | 122 / ID | 02/02 | C | |
| 9 | City | 19 / AN | 02/30 | O | |
| 10 | City | 19 / AN | 02/30 | O | |
| 11 | Through Surcharge % | 462 / N2 | 02/04 | O | |
| 12 | Paid in Surcharge % | 463 / N2 | 02/04 | O | |

***SEGMENT T3–****Transit Inbound Route*

**OPTIONAL**

Maximum Use: 12

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Assigned Number | 554 / N0 | 01/06 | M | |
| 2 | SCAC | 140 / ID | 02/04 | M | |
| 3 | Route Sequence Code | 133 / ID | 01/02 | O | |
| 4 | City Station | 19 / AN | 02/30 | O | |
| 5 | SPLC | 154 / ID | 06/09 | O | |
| 6 | Equipment Initial | 206 / AN | 01/04 | C | |
| 7 | Equipment Number | 207 / AN | 01/10 | C | |

## ***SEGMENT T6–****Transit Inbound Rates*

**OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Assigned Number | 554 / N0 | 01/06 | M | |
| 2 | Freight Rate | 60 / R | 01/09 | C | |
| 3 | Rate/Value Qualifier | 122 / ID | 02/02 | C | |
| 4 | City | 19 / AN | 02/30 | O | |
| 5 | Freight Rate | 60 / R | 01/09 | C | |
| 6 | Rate/Value Qualifier | 122 / ID | 02/02 | C | |
| 7 | City | 19 / AN | 02/30 | O | |

***SEGMENT T8–****Free Form Transit Data*

**OPTIONAL**

Maximum Use: 99

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Assigned Number | 554 / N0 | 01/06 | M | |
| 2 | Free Form | 299 / AN | 01/80 | M | |

## ***SEGMENT L3–****Total Weight and Charges*

**MANDATORY**

Maximum Use: 1

Example: L3*****102000**102000

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | No longer used | - - - - | - - - | - | |
| 2 | No longer used | - - - - | - - - | - | |
| 3 | No longer used | - - - - | - - - | - | |
| 4 | No longer used | - - - - | - - - | - | |
| 5 | Charges | 58 / N2 | 01/12 | O | Total charges. Two decimal points implied. |
| 6 | Advances | 191 / N2 | 01/09 | O | |
| 7 | Prepaid Amount | 117 / N2 | 01/09 | O | |

Note: Used for total charges, advances, and prepaid only.

## ***SEGMENT X7–****Customs Information*

**OPTIONAL**

Maximum Use: 2

NOTE:*THIS SEGMENT NOT USED BY BNSF.*

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Free Form Comments | 61/ AN | 01/30 | M | |
| 2 | Free Form Comments | 61/ AN | 01/30 | O | |

## ***SEGMENT SE–****Transaction Set Trailer*

**MANDATORY**

Maximum Use: 1

Example: SE*018*0001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Number of Segments | 96 / N2 | 01/10 | M | This element is the number of segments transmitted in the set. The ST segment is the first one counted and the SE segment is the last one counted. |
| 2 | Control Number | 329 / N2 | 04/09 | M | This number should match the control number on the ST segment. |

## ***SEGMENT GE–****Functional Group Trailer*

**MANDATORY**

Maximum Use: 1

Example: GE*1*1001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Number of Sets | 97 / N2 | 01/06 | M | This element should be the number of sets transmitted (number ST-SE pairs). |
| 2 | Control Number | 28 / N2 | 01/09 | M | This number must match the control number transmitted on the GS segment. |

## ***SEGMENT IEA–****Interchange Control Trailer*

**MANDATORY**

Maximum Use: 20

Example: IEA*1*000001001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Number Included Functional Groups | IEA01 / N0 | 01/05 | M | This element should be the number of sets transmitted (number GS-GE pairs). |
| 2 | Interchange Control Number | IEA02 / N0 | 09/09 | M | |


ELECTRONIC DATA INTERCHANGE

# 997

# FUNCTIONAL ACKNOWLEDGEMENT

**USING**
**ASC X12 TRANSACTION SET 410**
**VERSION 004010**

## *Introduction*

Transaction Set 997: Functional Acknowledgement
Functional Group: FA

This transaction set contains the format and establishes the data contents of the Functional Acknowledgement Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to define the control structures for a set of acknowledgements to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. *This standard does not cover the semantic meaning of the information encoded in the transaction sets.*

Burlington Northern Santa Fe will accept the Rail Carrier Shipment Information published by DISA for ASC X12. The following guidelines are all-inclusive and identify unique requirements for use of the ASC X12 997 transaction set when transmitting data to Burlington Northern Santa Fe.

To obtain X12 standards and documentation, contact:

Data Interchange Standards Association, Inc.
1800 Diagonal Road, Suite 355
Alexandria, VA 22314-2840
703-548-7005

## *Basic Formatting Rules*

In reading and formatting 997messages, some segments are not mandatory. For example, if all transactions are accepted without error, only the AK1 and AK9 segments are necessary. If, however, transactions are rejected or accepted with errors, detail regarding these messages should be formatted in the AK2, AK3, AK4, and AK5. This detailed is used to determine how/why the messages were rejected or accepted with error, thus the problems can be readily identified and corrected for future transmission.

## ***SEGMENT ISA–****Interchange Control Header*

**MANDATORY**

Maximum Use: 1 per transaction set

Example:

ISA*00*.....*00*.....*02*BNSF.....*02*CUSTOMERID.....*000101*0034*U*00401*123456789*1*P*~

| # | NAME | DATA ELEMENT # / TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Authorization Information Qualifier | I01 / ID | 02/02 | M | 00 |
| 2 | Authorization Information | I02 / AN | 10/10 | M | |
| 3 | Security Information Qualifier | I03 / AN | 02/02 | M | 00 |
| 4 | Security Information | I04 / AN | 10/10 | M | |
| 5 | Interchange ID Qualifier | I05 / ID | 02/02 | M | 02 |
| 6 | Interchange Sender ID | I06 / ID | 15/15 | M | BNSF |
| 7 | Interchange ID Qualifier | I07 / ID | 02/02 | M | 02 |
| 8 | Interchange Receiver ID | I08 / ID | 15/15 | M | Customer ID |
| 9 | Interchange Date | I09 / DT | 06/06 | M | YYMMDD |
| 10 | Interchange Time | I10 / TM | 04/04 | M | HHMM |
| 11 | Interchange Control Standard ID | I11 / ID | 01/01 | M | U - US EDI Community of ASC X12, TDCC, and UCS |
| 12 | Interchange Control Version Number | I12 / ID | 05/05 | M | 00401 - X12 ver 4010 |
| 13 | Interchange Control Number | I13 / N0 | 09/09 | M | |
| 14 | Acknowledgement Requested | I14 / ID | 01/01 | M | 0 - No acknowledgement requested<br>1 - Interchange acknowledgement requested |
| 15 | Test Indicator | I15 / ID | 01/01 | M | P - production<br>T - test |
| 16 | Subelement Separator | I16 / AN | 01/01 | M | BNSF uses ~ (tilde character) |

***NOTE: Spaces must be used when maximum length requirement is not met by the contents of the data element. Spaces are shown above in the example by periods (.) . These should not be part of the ISA but used here to illustrate that spaces are required even if no data is supplied within the position This segment needs to be exactly 106 positions long - counting the ISA, all the delimiters, all the mandatory fields plus a Hex 15 immediately following ISA 16 to indicate carriage return/line feed***

***IF COMMUNICATING VIA RAILINC, PLEASE SEE APPENDIX 1 AT END OF THIS DOCUMENT.***

## ***SEGMENT GS–****Beginning Segment*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: GS*FA*PASSWORD/ID*BNSF*20000101*1300*1001*X*004010

| # | NAME | DATA ELEMENT # / TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Functional Group | 479 / A | 02/02 | M | FA |
| 2 | Appl Send | 142 / AN | 02/12 | M | Mailbox or customer ID agreed to by acceptance into BNSF computer system. |
| 3 | Appl Receiver | 124 / A | 02/12 | M | Receiver railroad id BNSF |
| 4 | Interchange Date | 29 / N | 08/08 | M | YYYYMMDD of transmission |
| 5 | Interchange Time | 30 / N | 04/04 | M | HHMM of transmission |
| 6 | Control Number | 28 / N | 01/09 | M | Sender's message control number |
| 7 | Agency Code | 455 / N | 01/02 | M | X only for ASC X12 |
| 8 | Version | 480 / N | 01/12 | M | Senders transmission standard version. This manual represents version 004010. |

***SEGMENT ST*** *- Transaction Set Header*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: ST*997*0001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Functional Group | 143 /ID | 03/03 | M | 997 |
| 2 | Control Number | 329 /AN | 01/09 | M | Sender message control number. This number will be returned by receiver in response transaction set. |

## ***SEGMENT AK1*** *- Functional Group Response Header*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: AK1*SR*1234

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Functional ID Code | 479 / ID | 02/02 | M | |
| 2 | Group Control Number | 28 / N0 | 01/09 | M | Leading zeros will not be suppressed. This is the group control number from the original document, not this 997 message. |

## ***SEGMENT AK2*** *– Transaction Set Response Header*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: AK2*410*123400001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Transaction ID Code | 143 / ID | 03/03 | M | This indicates the transaction set which is being acknowledged. The above example reflects a 997 message in response to a 410 freight bill. |
| 2 | Transaction Control Number | 329 / AN | 04/09 | M | This is the control number from original document that is being acknowledged. |

## ***SEGMENT AK3*** *- Data Segment Note*

**OPTIONAL**

Maximum Use: 1 per transaction set

Example: AK3*080*N7*N7

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Segment ID Code | 721 / ID | 02/03 | M | |
| 2 | Segment Position in Transaction Set | 719 / N0 | 01/06 | M | |
| 3 | Loop ID Code | 447 / AN | 01/04 | O | |
| 4 | Segment Syn Error Code | 720 / ID | 01/03 | O | |

## ***SEGMENT AK4*** *- Data Element Note*

**OPTIONAL**

Maximum Use: 99 per transaction set

Example: AK4*11*0040*7*XX

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Element Position in Segment | 722 / N0 | 01/02 | M | |
| 2 | Data Element Reference Number | 725 / N0 | 01/04 | O | |
| 3 | Data Element Error Code | 723 / ID | 01/03 | M | |
| 4 | Copy of Bad Data Element | 724 / AN | 01/99 | O | |

## ***SEGMENT AK5*** *- Transaction Set Response Trailer*

**MANDATORY**

Maximum Use: 99 per transaction set

Example: AK5*A

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Transaction Set Acknowledgement Code | 717 / ID | 01/01 | M | A - accepted<br>E - accepted but errors noted<br>R - rejected |
| 2 | Transaction Set Syntax Error Code | 718 / ID | 01/03 | O | 1 - not supported<br>2 - trailer missing<br>3 - control number in header & trailer do not match<br>4 - number of included segments does not match actual count<br>5 - one or more segments in error<br>6 - missing or invalid transaction set identifier<br>7 - missing or invalid transaction set control number |
| 3 | Transaction Set Syntax Error Code | 718 / ID | 01/03 | O | |
| 4 | Transaction Set Syntax Error Code | 718 / AN | 01/03 | O | |
| 5 | Transaction Set Syntax Error Code | 718 / AN | 01/03 | O | |
| 6 | Transaction Set Syntax Error Code | 718 / AN | 01/03 | O | |

## ***SEGMENT AK9*** *- Functional Group Response Trailer*

**MANDATORY**

Maximum Use: 99 per transaction set

Example: AK9*A*1*1*1

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Functional Group Acknowledgement Code | 715 / ID | 01/01 | M | A - accepted<br>E - accepted but errors noted<br>R - rejected<br>P - Partially rejected, at least one transaction set was rejected |
| 2 | Number of Transaction Sets Included | 97 / N0 | 01/06 | M | |
| 3 | Number of Received Transaction Sets | 123 / N0 | 01/06 | M | |
| 4 | Number of Accepted Transaction Sets | 2 / N0 | 01/06 | M | |
| 5 | Functional Group Error Code | 716 / ID | 01/03 | O | |
| 6 | Functional Group Error Code | 718 / ID | 01/03 | O | |
| 7 | Functional Group Error Code | 718 / ID | 01/03 | O | |
| 8 | Functional Group Error Code | 718 / ID | 01/03 | O | |
| 9 | Functional Group Error Code | 718 / ID | 01/03 | O | |

## ***SEGMENT SE*** *- Transaction Set Trailer*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: SE*1*0001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Number of Included Segments | 96 / N0 | 01/10 | M | |
| 2 | Control Number | 329 /AN | 04/09 | M | |

## ***SEGMENT GE*** *- Ending Segment*

**MANDATORY**

Maximum Use: 1 per transaction set

Example: GE*1*1001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Number of Sets | 97 / N2 | 01/06 | M | This element should be the number of sets transmitted (number ST-SE pairs). |
| 2 | Control Number | 28 / N2 | 01/09 | M | This number must match the control number transmitted on the GS segment. |

## ***SEGMENT IEA–****Interchange Control Trailer*

**MANDATORY**

Maximum Use: 20

Example: IEA*1*000001001

| # | NAME | DATA ELEMENT # AND TYPE | MIN/MAX | REQ | CONTENTS |
|---|---|---|---|---|---|
| 1 | Number Included Functional Groups | IEA01 / N0 | 01/05 | M | This element should be the number of sets transmitted (number GS-GE pairs). |
| 2 | Interchange Control Number | IEA02 / N0 | 09/09 | M | |

## *APPENDIX 1 - Use of ISA headers with Railinc*

When using ISA headers with Railinc, the values within the data elements are different. Railinc's requirements for the ISA are as follows:

- The ISA01 is always 04 for Railinc, otherwise should be 00.
- The ISA02 should be pulled from list in documentation for Railinc, otherwise blank.
- The ISA03 should be 00 unless we are using passwords, then 01.
- The ISA04 should be the password is ISA03 is 01.
- The ISA06 is used at Railinc for all routing. This field should be the 4 character abbreviation of the third party (ex, "UPT ") if applicable, plus the Railinc defined 4 character abbreviation for the partner. It is possible that the partner abbreviation would not be required when using third parties (depends on the 3rd party). Non Railinc partners can define this value as they wish.

When translating messages from ISA to TRAIN II headers, this field will contain the transaction set identifier preceded by ‘‘SW’’. For a functional acknowledgment, the transaction set identifier will be preceded by ‘‘FA’’. (IE: SW417 or FA417)