



**Bill of Lading
404
EDI Mapping**

Grain Shipper Inc

Canadian National Railway - Electronic Commerce

The enclosed documentation covers information required to handle Grain traffic for Domestic, Port, and Cross Border destinations with origins in Canada.

Canadian National Railway - Electronic Commerce Basic 404 (Rail Bill of Lading) Requirements

CN is currently using the X12 Standard Version/Release 7010/RAIL

Sample EDI Transmission with required data for the 404 Transaction Set on grain traffic
destined to a Canadian Port:

ISA*00* *00* *ZZ*GENERIC *02*CN *180112*145
4*U*00701*000054913*0*P*^
GS*SR*GRAINSHIP*CN*20180112*1454*0092*X*007010
ST*404*00920001
BX*00*R*PPCN*K*B**
BNX*GS**
M3*R*20180112*1454
N9*BM*49503323020180112*1454**
N7*CN*123456*71384*E***RR**
GA*N*010100GR*297123*201724*****0**
F9WATSON*SK**
D9VANCOUVER*BC**
N1*SH*GRAIN SHIPPER INC
N3*123 ROAD
N4*WATSON*SK*S0K 4V0
PER*IC*CONTACT NAME*TE*123-123-1234
N1*CN*GRAIN TERMINAL CO
N3*12 SMITH STREET
N4*VANCOUVER*BC*V5K 1P7
R2*CN*S**R**
H3*NP
LX*1
L5*1*WHEAT*0113710*T
L0*1*71384*E***1*CLD**
SE*22*00920001
GE*1*0092
IEA*1*000054913

ISA Segment: Interchange Control Header

**ISA*00* *00* *ZZ*GENERIC *02*CN *180112*145
4*U*00701*000054913*0*P*^**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
ISA01	Authorization Information Qualifier	I01	ID	2/2
ISA02	Authorization Information (ten spaces)	I02	AN	10/10
ISA03	Security Information Qualifier	I03	ID	2/2
ISA04	Security Information (ten spaces)	I04	AN	10/10
ISA05	Interchange ID Qualifier	I05	ID	2/2
ISA06	Interchange Sender ID (GENERIC - fill out field with spaces)	I06	AN	15/15
ISA07	Interchange ID Qualifier (If RR SCAC use 02)	I05	ID	2/2
ISA08	Interchange Receiver ID (CN- fill out field with spaces)	I07	AN	15/15
ISA09	Interchange Date (YYMMDD)	I08	DT	6/6
ISA10	Interchange Time (HHMM)	I09	TM	4/4
ISA11	Repetition Separator (Suggest “^”)	I65		1/1
ISA12	Interchange Control Version Number (Value 00701)	I11	ID	5/5
ISA13	Interchange Control Number (a control number assigned by sender)	I12	N0	9/9
ISA14	Acknowledgment Requested (0 = none requested, 1= requested)	I13	ID	1/1
ISA15	Usage Indicator (P = Production, T = Test)	I14	ID	1/1
ISA16	Component Element Separator (Suggest “.”)	I15		1/1

GS Segment: Functional Group Header

GS*SR*GRAINSHIP*CN*20180112*1454*0092*X*007010

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GS01	Functional Identifier Code (SR = Rail Carrier Shipment Information)	479	ID	2/2
GS02	Application Sender's Code (Customer's sender ID)	142	AN	2/15
GS03	Application Receiver's Code (CN = Canadian National)	124	AN	2/15
GS04	Date (CCYYMMDD)	373	DT	8/8
GS05	Time (HHMM)	337	TM	4/6
GS06	Group Control Number (Assigned number originated and maintained by the sender)	28	N0	1/9
GS07	Responsible Agency Code (X = Accredited Standards Committee X12)	455	ID	1/2
GS08	Version / Release / Industry Identity (CN is using version 007010 of the X12 EDI Standards)	480	AN	1/12

ST Segment: Transaction Set Header

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

ST*404*00920001

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
ST01	Transaction Set Identifier Code (404 = Rail Carrier Shipment Information (Bill of Lading))	143	ID	3/3
ST02	Transaction Set Control Number (Sequential control number generated by Customer)	329	AN	4/9

BX Segment: General Shipment Information

BX*00*R*PPCN*K*B**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
BX01	Transaction Set Purpose Code (00 = Original)	353	ID	2/2
BX02	Transportation Method/Type Code (R = Rail)	91	ID	1/2
BX03	Shipment Method of Payment (PP = Prepaid, CC = Collect)	146	ID	2/2
BX05	Standard Carrier Alpha Code (CN = CN Rail)	140	ID	2/4
BX06	Weight Unit Code (L = Pounds, K= Kilograms)	188	ID	1/1
BX07	Shipment Qualifier (B = Bill of Lading for Individual Shipment)	147	ID	1/1

BNX Segment: Rail Shipment Information

BNX*GS**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
BNX01	Shipment Weight Code (Grain Exchange or Outturn Weight)	460	ID	1/1
BNX03	Billing Code (S = Single Shipment Billing)	11	ID	1/1

M3 Segment: Release

Indicates whether shipment is to be released for movement when the transmission is received or will be released through other means.

M3*R*20180112*1454

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
M301	Release Code (R = Release with Shipment Information)	132	ID	1/1
M302	Release Date (CCYYMMDD)	373	DT	8/8
M303	Release Time (HHMM, 24 hour clock 0001-2359)	337	TM	4/6

N9 Segment: Reference Number

Allows Reference Numbers to be sent to CN. At least one N9 containing a Bill of Lading_number must be included. This number will be included on all other documents such as Freight Invoice and Remittance/Payment.

N9*BM*49503323020180112*1454**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N901	Reference Number Qualifier (BM = Bill of Lading number) (WM = Weight Agreement Number) (PO = Purchase order Number)	128	ID	2/3
N902	Reference Number (Max 15 characters for B/L # (BM))	127	AN	1/30
N904	Date (CCYYMMDD, required for B/L (BM))	373	DT	8/8
N905	Time (HHMM, 24 hour clock 0001-2359 or HHMMSS or HHMMSSD or HHMMSSDD H=hours 00-23 M=minutes 00-59 S=seconds 00-59 DD=decimal seconds in tenths and hundredths 00-99)	337	TM	4/8

N7 Segment: Equipment Details

N7*CN*123456*71384*E***RR**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N701	Equipment Initial	206	AN	1/4
N702	Equipment Number	207	AN	1/15
N703	Weight	81	R	1/10
N704	Weight Qualifier (E = Estimated Weight)	187	ID	1/2
N711	Equipment Description Code (RR = Railcar }	40	ID	2/2

GA Segment: Canadian Grain Information

GA*N*010100GR*297123*201724*****0**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GA01	Fumigated/Cleaned Indicator B = Both fumigated and cleaned C = Cleaned F = Fumigated N = Not fumigated or cleaned	1275	ID	1/1
GA02	Commodity Code CGC Grain Commodity Code	22	AN	1/30
GA03	Inspected/Weighed Indicator Code IB = Both inspected and weighed II = Inspected IW = Weighed	1576	ID	1/2
GA04	Reference Identification Qualifier BO = Bin location number CW = CWB contract number DK = Platform number (producer/dealer authorization) GB = Grain block number GR = Grain order reference number OH = origin house (for CWB) RB = Incentive grain multi-block qualifier RN = CWB train run qualifier XO = Grain company sample number This number is from company test weight of grain, expressed as percentage xxx.x ZT = Milling in transit number	128	ID	2/3
GA05	Reference Identification Reference number paired with GA04	127	AN	1/80
GA06	Week Loading week expressed as CCYYWW	642	N0	6/6
GA11	Cdn Wheat Board Marketing Class Code 0 = Board grain 1 = Non-board grain 4 = Seed purchase 5 = Contract	1277	ID	1/1

F9 Segment: Origin

Indicates the origin of the shipment, the point from which it is shipped. The spelling should be in accordance with that listed in the Standard Point Location Code (SPLC) standard available from the National Motor Freight Tariff Association (USA) or the National Transportation Agency (Canada). CN can provide spellings for your stations.

F9WATSON*SK**

Data Seq	Element Name	Data Element	Data Type	Characters Min/Max
F902	Origin Station	19	AN	2/30
F903	State or Province Code	156	ID	2/2

D9 Segment: Destination

Indicates the destination of the shipment, the point at which it will be unloaded or where the transportation responsibility reverts to the consignee. The spelling should be in accordance with that listed in the Standard Point Location Code (SPLC) standard available from the National Motor Freight Tariff Association (USA) or the National Transportation Agency (Canada). CN can provide spellings for your stations.

D9VANCOUVER*BC**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
D902	Destination Station	19	AN	2/30
D903	State or Province Code	156	ID	2/2

N1 Segment: Name

Associated to the N3 and N4 segments below. N1, N3 and N4 segments are repeated for the Consignee and any other Additional Parties to the shipment.

**N1*SH*GENERIC CARLOAD INC
N3*123 ROAD
N4*WATSON*SK*S0K 4V0
N1*CN*GENERIC CONSIGNEE CO
N3*12 SMITH STREET
N4*VANCOUVER*BC*V5K 1P7
N1*PF*GENERIC CARLOAD INC
N3*123 ROAD
N4*WATSON*SK*S0K 4V0**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N101	Entity Identifier Code (SH = Shipper) (CN = Consignee) (C1 = Care of Party) (PF = Payer of Freight)	98	ID	2/3
N102	Name	93	AN	1/35

N3 Segment: Address

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N301	Address Information	166	AN	1/30
N302	Address Information	166	AN	1/30

N4 Segment: City

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N401	City Name	19	AN	2/30
N402	State or Province Code	156	ID	2/2
N403	Postal Code	116	ID	3/15

R2 Segment: Route Information

One R2 segment for each railroad in the route. CN can provide route information for your shipments (ie: Railroad SCAC's and junctions).

R2*CN*S**R**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
R201	Standard Carrier Alpha Code (SCAC) (CN = Canadian National etc)	140	ID	2/4
R202	Routing Sequence Code (S = Origin Carrier, Shipper's Routing (Rail))	133	ID	1/2
R206	Transportation Method/Type Code (R = Rail)	91	ID	1/2

H3 Segment: Special Handling Instructions**H3*NP**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
H301	Special Handling Code (NP = Do Not Pool)	152	ID	2/3

LX Segment: Assigned Number

LX*1

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
LX01	Assigned Number (Number assigned for differentiation within a transaction set)	554	N0	1/6

L5 Segment: Commodity Description

CN can provide Standard Transportation Commodity Codes (STCC) for your commodities. The commodity code is required only on the first L5 segment. Additional L5 segments can be used to provide additional description of lading.

L5*1*WHEAT*0113710*T

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
L501	Line Number	213	N0	1/6
L502	Commodity Description	79	AN	1/50
L503	Commodity Code (7 digit Standard Transportation Commodity Code (STCC)) (0113710 = Wheat)	22	AN	1/30
L504	Commodity Code Qualifier (T = Standard Transportation Commodity Code (STCC))	23	ID	1/1

L0 Segment: Line Item, Quantity and Weight

L0*1*71384*E***1*CLD**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
L001	Lading Line Item Number	213	N0	1/6
L004	Weight	81	R	1/10
L005	Weight Qualifier (E = Estimated Weight)	187	ID	1/2
L008	Lading Quantity	80	N0	1/7
L009	Packaging Form Code (CLD = Carload)	211	ID	3/3

SE Segment: Transaction Set Trailer

SE*0021*00920001

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
SE01	Number Of Included Segments (Includes ST and SE segments)	96	N0	1/10
SE02	Transaction Set Control Number (Repeated from ST segment ST02)	329	AN	4/9

GE Segment: Functional Group Trailer

GE*1*0092

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GE01	Number of Transaction Sets Included	97	N0	1/6
GE02	Group Control Number (Repeated from GS segment GS06)	28	N0	1/9

IEA Segment: Interchange Control Trailer

IEA*1*000054913

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
IEA01	Number of included Functional Groups	I16	N0	1/5
IEA02	Interchange Control Number (Same number as ISA13)	I12	N0	9/9

Sample EDI Transmission with required data for the 404 Transaction Set on grain traffic destined to a Canadian domestic location.:

ISA*00* *00* *ZZ*GENERIC *02*CN *180112*145
4*U*00701*000054913*0*P*^
GS*SR*GRAINSHIP*CN*20180112*1454*0092*X*007010
ST*404*00920001
BX*00*R*PP**CN*K*B
BNX*R**S
M3*R*20180112*1454
N9*BM*495033230**20180112*1454
N7*CN*123456*71384*E*****RR
GA*N*010100**GR*297123*9933*****0
F9**WATSON*SK
D9**CLINTON*ON
N1*SH*GRAIN SHIPPER INC
N3*123 ROAD
N4*WATSON*SK*S0K 4V0
PER*IC*CONTACT NAME*TE*123-123-1234
N1*CN*GRAIN COMMODITIES CO
N3*12 SMITH STREET
N4*CLINTON*ON*N0M 0A5
N1*PF*GRAIN SHIPPER INC
N3*2217 HIGH STREET
N4*WINNIPEG*MB*R3C 3Z3
R2*CN*S****R
H3*NP
LX*1
L5*1*WHEAT*0113710*T
L0*1***71384*E***1*CLD
SE*26*00920001
GE*1*0092
IEA*1*000054913

ISA Segment: Interchange Control Header

**ISA*00* *00* *ZZ*GENERIC *02*CN *180112*145
4*U*00701*000054913*0*P*^**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
ISA01	Authorization Information Qualifier	I01	ID	2/2
ISA02	Authorization Information (ten spaces)	I02	AN	10/10
ISA03	Security Information Qualifier	I03	ID	2/2
ISA04	Security Information (ten spaces)	I04	AN	10/10
ISA05	Interchange ID Qualifier	I05	ID	2/2
ISA06	Interchange Sender ID (GENERIC - fill out field with spaces)	I06	AN	15/15
ISA07	Interchange ID Qualifier (If RR SCAC use 02)	I05	ID	2/2
ISA08	Interchange Receiver ID (CN- fill out field with spaces)	I07	AN	15/15
ISA09	Interchange Date (YYMMDD)	I08	DT	6/6
ISA10	Interchange Time (HHMM)	I09	TM	4/4
ISA11	Repetition Separator (Suggest “^”)	I65		1/1
ISA12	Interchange Control Version Number (Value 00701)	I11	ID	5/5
ISA13	Interchange Control Number (a control number assigned by sender)	I12	N0	9/9
ISA14	Acknowledgment Requested (0 = none requested, 1= requested)	I13	ID	1/1
ISA15	Usage Indicator (P = Production, T = Test)	I14	ID	1/1
ISA16	Component Element Separator (Suggest “.”)	I15		1/1

GS Segment: Functional Group Header

GS*SR*GRAINSHIP*CN*20180112*1454*0092*X*007010

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GS01	Functional Identifier Code (SR = Rail Carrier Shipment Information)	479	ID	2/2
GS02	Application Sender's Code (Customer's sender ID)	142	AN	2/15
GS03	Application Receiver's Code (CN = Canadian National)	124	AN	2/15
GS04	Date (CCYYMMDD)	373	DT	8/8
GS05	Time (HHMM)	337	TM	4/6
GS06	Group Control Number (Assigned number originated and maintained by the sender)	28	N0	1/9
GS07	Responsible Agency Code (X = Accredited Standards Committee X12)	455	ID	1/2
GS08	Version / Release / Industry Identity (CN is using version 007010 of the X12 EDI Standards)	480	AN	1/12

ST Segment: Transaction Set Header

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

ST*404*00920001

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
ST01	Transaction Set Identifier Code (404 = Rail Carrier Shipment Information (Bill of Lading))	143	ID	3/3
ST02	Transaction Set Control Number (Sequential control number generated by Customer)	329	AN	4/9

BX Segment: General Shipment Information

BX*00*R*PPCN*K*B**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
BX01	Transaction Set Purpose Code (00 = Original)	353	ID	2/2
BX02	Transportation Method/Type Code (R = Rail)	91	ID	1/2
BX03	Shipment Method of Payment (PP = Prepaid, CC = Collect)	146	ID	2/2
BX05	Standard Carrier Alpha Code (CN = CN Rail)	140	ID	2/4
BX06	Weight Unit Code (L = Pounds, K= Kilograms)	188	ID	1/1
BX07	Shipment Qualifier (B = Bill of Lading for Individual Shipment)	147	ID	1/1

BNX Segment: Rail Shipment Information

BNX*RS**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
BNX01	Shipment Weight Code (A = Wgt Agreement Number) (N = Per Car Charge) (R = Rail Carrier Scale)	460	ID	1/1
BNX03	Billing Code (S = Single Shipment Billing)	11	ID	1/1

M3 Segment: Release

Indicates whether shipment is to be released for movement when the transmission is received or will be released through other means.

M3*R*20180112*1454

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
M301	Release Code (R = Release with Shipment Information)	132	ID	1/1
M302	Release Date (CCYYMMDD)	373	DT	8/8
M303	Release Time (HHMM, 24 hour clock 0001-2359)	337	TM	4/6

N9 Segment: Reference Number

Allows Reference Numbers to be sent to CN. At least one N9 containing a Bill of Lading number must be included. This number will be included on all other documents such as Freight Invoice and Remittance/Payment.

N9*BM*49503323020180112*1454**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N901	Reference Number Qualifier (BM = Bill of Lading number) (WM = Weight Agreement Number) (PO = Purchase order Number)	128	ID	2/3
N902	Reference Number (Max 15 characters for B/L # (BM))	127	AN	1/30
N904	Date (CCYYMMDD, required for B/L (BM))	373	DT	8/8
N905	Time (HHMM, 24 hour clock 0001-2359 or HHMMSS or HHMMSSD or HHMMSSDD H=hours 00-23 M=minutes 00-59 S=seconds 00-59 DD=decimal seconds in tenths and hundredths 00-99)	337	TM	4/8

N7 Segment: Equipment Details

N7*CN*123456*71384*E***RR**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N701	Equipment Initial	206	AN	1/4
N702	Equipment Number	207	AN	1/15
N703	Weight	81	R	1/10
N704	Weight Qualifier (E = Estimated Weight) (N = Net Weight)	187	ID	1/2
N711	Equipment Description Code (RR = Railcar }	40	ID	2/2

GA Segment: Canadian Grain Information

GA*N*010100GR*297123*201724*****0**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GA01	Fumigated/Cleaned Indicator B = Both fumigated and cleaned C = Cleaned F = Fumigated N = Not fumigated or cleaned	1275	ID	1/1
GA02	Commodity Code CGC Grain Commodity Code	22	AN	1/30
GA03	Inspected/Weighed Indicator Code IB = Both inspected and weighed II = Inspected IW = Weighed	1576	ID	1/2
GA04	Reference Identification Qualifier BO = Bin location number CW = CWB contract number DK = Platform number (producer/dealer authorization) GB = Grain block number GR = Grain order reference number OH = origin house (for CWB) RB = Incentive grain multi-block qualifier RN = CWB train run qualifier XO = Grain company sample number This number is from company test weight of grain, expressed as percentage xxx.x ZT = Milling in transit number	128	ID	2/3
GA05	Reference Identification Reference number paired with GA04	127	AN	1/80
GA06	Week Loading week expressed as CCYYWW	642	N0	6/6
GA07	Unload Terminal Elevator Code	899	ID	3/4
GA08	Date Date expressed as CCYYMMDD	373	DT	8/8
GA09	Incentive grain rate indicator Number of cars ordered for rate of incentive. This would be matched with GA04/05	1470	N0	1/9
GA10	Machine Separable Indicator Code First two digits of the grain code	1276	ID	2/2
GA11	Cdn Wheat Board Marketing Class Code 0 = Board grain 1 = Non-board grain 4 = Seed purchase 5 = Contract	1277	ID	1/1

At least one occurrence of a GA04 is required with the code value of GR.

F9 Segment: Origin

Indicates the origin of the shipment, the point from which it is shipped. Spelling should be in accordance with that listed in the Standard Point Location Code (SPLC) standard available from the National Motor Freight Tariff Association (USA) or the National Transportation Agency (Canada). CN can provide spellings for your stations.

F9WATSON*SK**

Data Seq	Element Name	Data Element	Data Type	Characters Min/Max
F902	Origin Station	19	AN	2/30
F903	State or Province Code	156	ID	2/2

D9 Segment: Destination

Indicates the destination of the shipment, the point at which it will be unloaded or where the transportation responsibility reverts to the consignee. Spelling should be in accordance with that listed in the Standard Point Location Code (SPLC) standard available from the National Motor Freight Tariff Association (USA) or the National Transportation Agency (Canada). CN can provide spellings for your stations.

D9CLINTON*ON**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
D902	Destination Station	19	AN	2/30
D903	State or Province Code	156	ID	2/2

N1 Segment: Name

Associated to the N3 and N4 segments below. N1, N3 and N4 segments are repeated for the Consignee and any other Additional Parties to the shipment.

**N1*SH*GRAIN SHIPPER INC
N3*123 ROAD
N4*WATSON*SK*S0K 4V0
N1*CN*GRAIN COMMODITIES CO
N3*12 SMITH STREET
N4*CLINTON*ON*N0M 0A5
N1*PF*GRAIN SHIPPER INC
N3*2217 HIGH STREET
N4*WINNIPEG*MB*R3C 3Z3**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N101	Entity Identifier Code (SH = Shipper) (CN = Consignee) (C1 = Care of Party) (PF = Payer of Freight)	98	ID	2/3
N102	Name	93	AN	1/35

N3 Segment: Address

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N301	Address Information	166	AN	1/30
N302	Address Information	166	AN	1/30

N4 Segment: City

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N401	City Name	19	AN	2/30
N402	State or Province Code	156	ID	2/2
N403	Postal Code	116	ID	3/15

R2 Segment: Route Information

One R2 segment for each railroad in the route. CN can provide route information for your shipments (ie: Railroad SCAC's and junctions).

R2*CN*S**R**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
R201	Standard Carrier Alpha Code (SCAC) (CN = Canadian National etc)	140	ID	2/4
R202	Routing Sequence Code (S = Origin Carrier, Shipper's Routing (Rail))	133	ID	1/2
R206	Transportation Method/Type Code (R = Rail)	91	ID	1/2

H3 Segment: Special Handling Instructions**H3*NP**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
H301	Special Handling Code (NP = Do Not Pool)	140	ID	2/4

LX Segment: Assigned Number**LX*1**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
LX01	Assigned Number (Number assigned for differentiation within a transaction set)	554	N0	1/6

L5 Segment: Commodity Description

CN can provide Standard Transportation Commodity Codes (STCC) for your commodities. The commodity code is required only on the first L5 segment. Additional L5 segments can be used to provide additional description of lading.

L5*1*WHEAT*0113710*T

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
L501	Line Number	213	N0	1/6
L502	Commodity Description	79	AN	1/50
L503	Commodity Code (7 digit Standard Transportation Commodity Code (STCC)) (0113710 = Wheat)	22	AN	1/30
L504	Commodity Code Qualifier (T = Standard Transportation Commodity Code (STCC))	23	ID	1/1

L0 Segment: Line Item, Quantity and Weight**L0*1***71384*E***1*CLD**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
L001	Lading Line Item Number	213	N0	1/6
L004	Weight	81	R	1/10
L005	Weight Qualifier (E = Estimated Weight) (N = Net Weight)	187	ID	1/2
L008	Lading Quantity	80	N0	1/7
L009	Packaging Form Code (CLD = Carload)	211	ID	3/3

SE Segment: Transaction Set Trailer**SE*27*00920001**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
SE01	Number Of Included Segments (Includes ST and SE segments)	96	N0	1/10
SE02	Transaction Set Control Number (Repeated from ST segment ST02)	329	AN	4/9

GE Segment: Functional Group Trailer

GE*1*0092

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GE01	Number of Transaction Sets Included	97	N0	1/6
GE02	Group Control Number (Repeated from GS segment GS06)	28	N0	1/9

IEA Segment: Interchange Control Trailer

IEA*1*000054913

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
IEA01	Number of included Functional Groups	I16	N0	1/5
IEA02	Interchange Control Number (Same number as ISA13)	I12	N0	9/9

Sample EDI Transmission with required data for the 404 Transaction Set on grain traffic destined to the USA.:

ISA*00* *00* *ZZ*GENERIC *02*CN *180112*145
4*U*00701*000054913*0*P^
GS*SR*GRAINSHIP*CN*20180112*1454*0092*X*007010
ST*404*00920001
BX*00*R*PP**CN*K*B****10**2
BNX*R**S
M3*R*20180112*1454
N9*BM*495033230**20180112*1454
N7*CN*123456*71384*E*****RR
GA*N*010100**GR*297123*201724*****0
F9**WATSON*SK
D9**ST ANSGAR*IA
N1*SH*GRAIN SHIPPER INC
N3*123 ROAD
N4*WATSON*SK*S0K 4V0
PER*IC*CONTACT NAME*TE*123-123-1234
N1*CN*AGRI TRADING INC
N3*12 SMITH STREET
N4*ST ANSGAR*IA*12345
N1*C1*GRAIN MILLERS CORP.
N3*2217 HIGH STREET
N4*ST ANSGAR*IA*12345
N1*XU*NORMAN G JENSEN INC
R2*CN*S*CHGO***R
R2*CC*1*MONAJ***R
R2*CEDR*2****R
H3*NP
LX*1
L5*1*WHEAT*0113710*T
L0*1***71384*E***1*CLD
X1**AJR 773001*C****CA***78*10769.52**MP*138
XH*USD*N*138
SE*30*00920001
GE*1*0092

ISA Segment: Interchange Control Header

**ISA*00* *00* *ZZ*GENERIC *02*CN *180112*145
4*U*00701*000054913*0*P*^**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
ISA01	Authorization Information Qualifier	I01	ID	2/2
ISA02	Authorization Information (ten spaces)	I02	AN	10/10
ISA03	Security Information Qualifier	I03	ID	2/2
ISA04	Security Information (ten spaces)	I04	AN	10/10
ISA05	Interchange ID Qualifier	I05	ID	2/2
ISA06	Interchange Sender ID (GENERIC - fill out field with spaces)	I06	AN	15/15
ISA07	Interchange ID Qualifier (If RR SCAC use 02)	I05	ID	2/2
ISA08	Interchange Receiver ID (CN- fill out field with spaces)	I07	AN	15/15
ISA09	Interchange Date (YYMMDD)	I08	DT	6/6
ISA10	Interchange Time (HHMM)	I09	TM	4/4
ISA11	Repetition Separator (Suggest “^”)	I65		1/1
ISA12	Interchange Control Version Number (Value 00701)	I11	ID	5/5
ISA13	Interchange Control Number (a control number assigned by sender)	I12	N0	9/9
ISA14	Acknowledgment Requested (0 = none requested, 1= requested)	I13	ID	1/1
ISA15	Usage Indicator (P = Production, T = Test)	I14	ID	1/1
ISA16	Component Element Separator (Suggest “.”)	I15		1/1

GS Segment: Functional Group Header

GS*SR*GRAINSHIP*CN*20180112*1454*0092*X*007010

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GS01	Functional Identifier Code (SR=Rail Carrier Shipment Information)	479	ID	2/2
GS02	Application Sender's Code	142	AN	2/15
GS03	Application Receiver's Code (CN=Canadian National)	124	AN	2/15
GS04	Date (CCYYMMDD)	373	DT	8/8
GS05	Time (HHMM)	337	TM	4/6
GS06	Group Control Number (Assigned number originated and maintained by the sender)	28	N0	1/9
GS07	Responsible Agency Code (X=Accredited Standards Committee X12)	455	ID	1/2
GS08	Version / Release / Industry Identify	480	AN	1/12

ST Segment: Transaction Set Header

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

ST*404*105442100

Element Seg	Element Description	Data Element	Data Type	Characters Min/Max
ST01	Transaction Set Identifier Code (404=Rail Carrier Shipment Information Bill of Lading)	143	ID	3/3
ST02	Transaction Set Control Number (Sequential control number generated by the sender)	329	AN	4/9

BX Segment: General Shipment Information

BX*00*R*PPCN*L*B****10**2**

Element Seg	Element Description	Data Element	Data Type	Characters Min/Max
BX01	Transaction Set Purpose Code (00=Original)	353	ID	2/2
BX02	Transportation Method/Type Code (R=Rail)	91	ID	1/2
BX03	Shipment Method Of Payment (PP=Prepaid)	146	ID	2/2
BX05	Standard Carrier Alpha Code (CN=CN Rail)	140	ID	2/4
BX06	Weight Unit Code (L=Pounds)	188	ID	1/1
BX07	Shipment Qualifier (B=Bill of Lading for Individual Shipment)	147	ID	1/1
BX11	Customs Documentation Handling Code (10=Proforma entered – B13 Not Required) (30=Proforma with Broker at Port of exit - B13 Not Required)	501	ID	2/2
BX13	Goods and Services Tax Reason Code (2=Outbounds Goods and Services Tax Declaration to USA only)	714	ID	1/1

BNX Segment: Rail Shipment Information

BNX*RS**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
BNX01	Shipment Weight Code (R=Rail Carrier Scale Weight) (A=Weight Agreement)	460	ID	1/1
BNX03	Billing Code (S=Single Shipment Billing)	11	ID	1/1

M3 Segment: Release

Indicates whether shipment is to be released for movement when the transmission is received or will be released through other means.

M3*R*20180112*1454

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
M301	Release Code	132	ID	1/1
M302	Release Date (CCYYMMDD)	373	DT	8/8
M303	Release Time (HHMM, 24 hour clock)	337	TM	4/8

N9 Segment: Reference Number

Allows Reference Numbers to be sent to CN. At least one N9 containing a Bill of Lading_number must be included. This number will be included on all other documents such as_Freight Invoice and Remittance/Payment.

N9*BM*49503323020180112*1454**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N901	Reference Number Qualifier BM=Bill of Lading No. PO=Purchase Order No. WM=Weight Agreement HS=Harmonized code	128	ID	2/3
N902	Reference Number	127	AN	1/30
N904	Date (YYYYMMDD)	373	DT	8/8
N905	Time (HHMM)	337	TM	4/6

N7 Segment: Equipment Details

N7*CN*123456*71384*E***RR**

Element Seq	Element Description	Data Element	Data Type	Characters Min/Max
N701	Equipment Initial	206	AN	1/4
N702	Equipment Number	207	AN	1/15
N703	Weight	81	R	1/10
N704	Weight Qualifier (N=Actual net weight E= Estimated Weight)	187	ID	1/2
N711	Equipment Description Code (RR=Rail Car)	40	ID	2/2

GA Segment: Canadian Grain Information

GA*N*010100GR*297123*201724*****0**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
GA01	Fumigated/Cleaned Indicator B = Both fumigated and cleaned C = Cleaned F = Fumigated N = Not fumigated or cleaned	1275	ID	1/1
GA02	Commodity Code CGC Grain Commodity Code	22	AN	1/30
GA03	Inspected/Weighed Indicator Code IB = Both inspected and weighed II = Inspected IW = Weighed	1576	ID	1/2
GA04	Reference Identification Qualifier BO = Bin location number CW = CWB contract number DK = Platform number (producer/dealer authorization) GB = Grain block number GR = Grain order reference number OH = origin house (for CWB) RB = Incentive grain multi-block qualifier RN = CWB train run qualifier XO = Grain company sample number This number is from company test weight of grain, expressed as percentage xxx.x ZT = Milling in transit number	128	ID	2/3
GA05	Reference Identification Reference number paired with GA04	127	AN	1/80
GA06	Week Loading week expressed as CCYYWW	642	N0	6/6
GA07	Unload Terminal Elevator Code	899	ID	3/4
GA08	Date Date expressed as CCYYMMDD	373	DT	8/8
GA09	Incentive grain rate indicator Number of cars ordered for rate of incentive. This would be matched with GA04/05	1470	N0	1/9
GA10	Machine Separable Indicator Code First two digits of the grain code	1276	ID	2/2
GA11	Cdn Wheat Board Marketing Class Code 0 = Board grain 1 = Non-board grain 4 = Seed purchase 5 = Contract	1277	ID	1/1

At least one occurrence of a GA04 is required with the code value of GR.

F9 Segment: Origin

Indicates the origin of the shipment, the point from which it is shipped. Spelling should be in accordance with that listed in the Standard Point Location Code (SPLC) standard available from the National Motor Freight Tariff Association (USA) or the National Transportation Agency (Canada). CN can provide spellings for your stations.

F9WATSON*SK**

Element Seg	Element Description	Data Element	Data Type	Characters Min/Max
F902	Origin Station	19	AN	2/30
F903	State or Province Code	156	ID	2/2

D9 Segment: Destination

Indicates the destination of the shipment, the point at which it will be unloaded or where the transportation responsibility reverts to the consignee. Spelling should be in accordance with that listed in the Standard Point Location Code (SPLC) standard available from the National Motor Freight Tariff Association (USA) or the National Transportation Agency (Canada). CN can provide spellings for your stations.

D9ST ANSGAR*IA**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
D902	Destination Station	19	AN	2/30
D903	State or Province Code	156	ID	2/2

N1 Segment: Name

Associated to the N3 and N4 segments below. N1, N3 and N4 segments are repeated for the Consignee and any other Additional Parties to the shipment.

N1*SH*GRAIN SHIPPER INC
N3*123 ROAD
N4*WATSON*SK*S0K 4V0
N1*CN*AGRI TRADING INC
N3*12 SMITH STREET
N4*ST ANSGAR*IA*12345
N1*C1*GRAIN MILLERS CORP
N3*2217 HIGH STREET
N4*ST ANSGAR*IA*12345
N1*XU*NORMAN G JENSEN INC

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N101	Entity Identifier Code SH=Shipper CN=Consignee C1=Care of Party PF=Payer of freight XU=Customs Broker	98	ID	2/3
N102	Name	93	AN	1/35

N3 Segment: Address

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N301	Address Information	166	AN	1/30
N302	Address Information	166	AN	1/30

N4 Segment: City

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
N401	City Name	19	AN	2/30
N402	State or Province Code	156	ID	2/2
N403	Postal Code	116	ID	3/9

R2 Segment: Route Information

One R2 segment for each railroad in the route. CN can provide route information for your shipments (ie: Railroad SCAC's and junctions).

R2*CN*S*CHGO*R**
R2*CC*1*MONAJ*R**
R2*CEDR*2**R**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
R201	Standard Carrier Alpha Code (SCAC) (CN=Canadian National)	140	ID	2/4
R202	Routing Sequence Code (S=Origin Carrier, Shipper's Routing (Rail) 1=1st Carrier After Origin Carrier) 2=2 nd Carrier after origin carrier D=Delivering Carrier (switch)	133	ID	1/2
R203	Rule 260 Junction Name	19	AN	2/30

H3 Segment: Special Handling Instructions

H3*NP

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
H301	Special Handling Code (NP = Do Not Pool)	140	ID	2/4

LX Segment: Assigned Number

LX*1

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
LX01	Assigned Number (Number assigned for differentiation within a transaction set)	554	N0	1/6

L5 Segment: Commodity Description

CN can provide Standard Transportation Commodity Codes (STCC) for your commodities. The commodity code is required only on the first L5 segment. Additional L5 segments can be used to provide additional description of lading.

L5*1*WHEAT*0113710*T

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
L501	Lading Line Item Number	213	N0	1/6
L502	Lading Description	79	AN	1/50
L503	Commodity Code (7 digit Standard Transportation Commodity Code (STCC)) (0113710 = Wheat)	22	AN	1/30
L504	Commodity Code Qualifier (T= STCC Code)	23	ID	1/1

L0 Segment: Line Item, Quantity and Weight

L0*1*71384*E***1*CLD**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
L001	Lading Line Item Number	213	N0	1/6
L004	Weight	81	R	1/10
L005	Weight Qualifier (N=Actual weight)	187	ID	1/2
L008	Lading Quantity	80	N0	1/7
L009	Packaging Form Code (CLD = Carload)	211	ID	3/3

X1 Segment: Export License

X1AJR 773001*C***CA***78*10769.52**MP*138**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
X102	Export License Number	50	AN	6/35
X103	Export Lic Status Code	51	ID	1/1
X107	Country Code	26	ID	2/3
X110	Lading quantity	80	N0	1/7
X111	Lading value	148	R	2/9
X113	Unit or basis for measurement code (MP=metric tons)	355	ID	2/2
X114	Unit price	212	R	1/17

XH Segment: Proforma – B13 Information

XH*USD*N***138**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
XH01	Currency Code	100	ID	3/3
XH02	Related company Indication Code	645	ID	1/1
XH07	Unit Price	212	R	1/17

SE Segment: Transaction Set Trailer

SE*0027*00920001

Element Seg	Element Description	Data Element	Data Type	Characters Min/Max
SE01	Number of Included Segments (Includes ST and SE segments)	96	N0	1/10
SE02	Transaction Set Control Number (repeated from ST segment ST02)	329	AN	4/9

GE Segment: Functional Group Trailer

GE*1*0092

Element Seg	Element Description	Data Element	Data Type	Characters Min/Max
GE01	Number of Transaction Sets Included	97	N0	1/6
GE02	Group Control Number (Repeated from GS06)	28	N0	1/9
	from	GS	Segment	GS06)

IEA Segment: Interchange Control Trailer

IEA*1*000054913

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
IEA01	Number of included Functional Groups	I16	N0	1/5
IEA02	Interchange Control Number (Same number as ISA13)	I12	N0	9/9