

Bill of Lading 404 EDI Mapping

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Grain Shipper Inc EDI 404 Implementation Guide

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 4050/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 *020725*145 4*U*00405*000054913*0*P*^ GS*SR*GRAINSHIP*CN*20000207*0728*0092*X*004050 ST*404*00920001 BX*00*R*PP**CN*K*B BNX*G**S M3*R*20000207*0728 N9*BM*495033230**20000207*0728 N7*CN*123456*71384*E******RR GA*N*010100**GR*297123*9933*****0 F9**WATSON*SK D9**VANCOUVER*BC N1*SH*GRAIN SHIPPER INC N3*123 ROAD N4*WATSON*SK **PER*IC*CONTACT NAME*TE*123-123-1234** N1*CN*GRAIN TERMINAL CO N3*12 SMITH STREET N4*VANCOUVER*BC R2*CN*S****R H3*NP I X*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*GENE 405*000054913*0*P*^	RIC	*02*CN	*020725*145	
	Element	Data		Data Cł	naracters
Seq	Name		Element	Type	Min/Max
ISA01	Authorization Information Q	ualifier	101	ID	2/2
ISA02	Authorization Information (ten spaces)		102	AN	10/10
ISA03	Security Information Qualifie	er	103	ID	2/2
ISA04	Security Information		104	AN	10/10
ISA05	Interchange ID Qualifier		105	ID	2/2
ISA06	Interchange Sender ID (fill out with spaces)		106	AN	15/15
ISA07	Interchange ID Qualifier (If RR SCAC use 02)		105	ID	2/2
ISA08	Interchange Receiver ID (RR SCAC- fill out field with	spaces)	107	AN	15/15
ISA09	Interchange Date (YYMMDD)	,	108	DT	6/6
ISA10	Interchange Time (HHMM)		109	ТМ	4/4
ISA11	Repetition Separator (Suggest "^"		165		1/1
ISA12	Interchange Control Versior (Value 00405)	Number	111	ID	5/5
ISA13	Interchange Control Numbe (number assigned by sende		112	N0	9/9
ISA14		d	113	ID	1/1
ISA15	Usage Indicator (P = Production, T = Test)		114	ID	1/1
ISA16	Component Element Separa	ator	115		1/1

157*00* *00* *77*CENEDIC *02*CN

GS Segment: Functional Group Header

GS*SR*GRAINSHIP*CN*20000207*0728*0092*X*004050

Elemer	nt Element	Data Data	Cl	haracters
Seq	Name	Element	Туре	Min/Max
GS01	Functional Identifier Code (SR = Rail Carrier Shipment Infor	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	ТМ	4/6
GS06	Group Control Number (Assigned number originated and n	28 naintained by the sender	N0	1/9
GS07	Responsible Agency Code (X = Accredited Standards Commit	455	ÍD	1/2
GS08	Version / Release / Industry Identit (CN is using version 004050 of the	y 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

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

BX Segment: General Shipment Information

BX*00*R*PP**CN*K*B

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

BNX Segment: Rail Shipment Information

BNX*G**S

Elemen <u>Seq</u>	t 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*20000207*0728

	t Element	Data	Data	Characters
Seq	Name	Element	Туре	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	ТМ	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*495033230**20000207*0728

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N901	Reference Number Qualifier (BM = Bill of Lading number) (PO = Purchase order number) (IL = GT Secure or GT Pro number)	128	ID	2/2
N902	(Max 15 characters for B/L # (BM))	127	AN	1/30
N904	Date	373	DT	8/8
N905	(CCYYMMDD, required for B/L (BM)) Time (HHMM, 24 hour clock 0001-2359)	337	ТМ	4/6

N7 Segment: Equipment Details

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

Element Element		Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N701	Equipment Initial	206	AN	1/4
N702	Equipment Number	207	AN	1/10
N703	Weight	81	R	1/8
N704	Weight Qualifier	187	ID	1/2
N711	(E = Estimated Weight) Equipment Description Code (RR = Railcar}	40	ID	2/2

GA Segment: Canadian Grain Information

GA*N*010100**GR*297123*9933*****0

Elemen Seq	t 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 = Location number CW = CWB contract number DK = Platform number (producer/dealer au	128	ID	2/3
	 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 w 	aight of arein	avaraged on according	00 VVV V
GA05	ZT = Milling in transit number Reference Identification	127	AN	1/30
A06	Reference number paired with GA04 Week	642	N0	4/4
A07	Loading week expressed as YYWW Unload Terminal Elevator Code	899	ID	3/4
A08	Date Date expressed as CCYYMMDD	373	DT	8/8
A09	Incentive grain rate indicator Number of cars ordered for rate of incentiv	1470 e. This would	N0 be matched with GA	1/9 04/05
A10	Machine Separable Indicator Code First two digits of the grain code	1276	ID	2/2
A11	Cdn Wheat Board Marketing Class Code 0 = Board grain 1 = Non-board grain 4 = Seed purchase 5 = Contract	1277	ID	1/1
iA12	Cdn Wheat Board Marketing Class Type C = Consigned S = Street	1278	ID	1/1
A13	Yes/No Condition Or Response Code Y = Direct hit (direct to departure wharf fo N = Unload at terminal If GA13 is Y, vessel and voyage info is red		-	1/1
A14	Location Identifier If GA13 is equal to N, then value in GA14	310	AN	1/30
GA15	State Or Province Code Paired with GA14 if applicable	156	ID	2/2
Train S	Shipper Inc EDI 404 Implementation Guide			

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GA16	Percent Qualifier SF = Percent dockage	1004	ID	1/2
	SG = Test weight			
	SD = Moisture content			
	SE = Protein content			
GA17	Percent	954	R	1/10
	Paired with GA16			

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.

F9**WATSON*SK

Data	Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
F902	Origin Station	101	AN	2/19
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.

D9**VANCOUVER*BC

Elemer	nt Element	Data	Data	Characters
Seq	Name	Element	Type	Min/Max
D902	Destination Station	300	AN	2/19
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 N1*CN*GRAIN TERMINAL CO N3*12 SMITH STREET N4*VANCOUVER*BC N1*N1*GRAIN SHIPPER INC

	nt Element	Data	Data	Characters		
Seq	Name	Element	Туре	Min/Max		
N101	Entity Identifier Code (CN = Consignee) (SH = Shipper)	98	ID	2/2		
	(C1 = Care of Party) (N1 = Notify Party)					
N102	Name	93	AN	1/27		
<u>N3 Se</u>	gment: Address					
Elemer	nt Element	Data	Data	Characters		
Seq	Name	Element	Туре	Min/Max		
N301 N302	Address Information Address Information	166 166	AN AN	1/30 1/30		
N/ Sa	NA Segment: City					

N4 Segment: City

Elemen	nt Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
N401	City Name	19	AN	2/19
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****R

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

H3 Segment: Special Handling Instructions

H3*NP

Elemer <u>Seq</u>	t 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				
Elemer	t Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
LX01	Assigned Number (Number assigned for differentiation within	554 n a transaction set	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 Element		Data	Data	Characters	
Seq	Name	Element	Туре	Min/Max	
L501	Line Number	213	N0	1/3	
L502	Commodity Description	79	AN	1/50	
L503	Commodity Code	22	AN	1/16	
	(7 digit Standard Transportation Comm	odity Code (STCC	C))		
	(0113710 = Wheat)				
L504	Commodity Code Qualifier	23	ID	1/1	
	(T = Standard Transportation Commodity Code (STCC))				

L0 Segment: Line Item, Quantity and Weight

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

Element Element		Data	Data	Characters
Seq	Name	Element	Type	Min/Max
-				
L001	Lading Line Item Number	213	N0	1/3
L004	Weight	81	R	1/8
L005	Weight Qualifier	187	ID	1/2
	(E = Estimated Weight)			
L008	Lading Quantity	80	N0	1/7
L009	Packaging Form Code	211	ID	3/3
	(CLD = Carload)			
L011	Weight Unit Code	188	ID	1/1
	(L = Pounds)			
	(K = Kilograms)			

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SE Segment: Transaction Set Trailer

SE*0021*00920001

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

GE Segment: Functional Group Trailer

GE*1*0092

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

IEA Segment: Interchange Control Trailer

IEA*1*000054913

Elemen	t Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
IEA01 IEA02	Number of included Functional Groups Interchange Control Number (Same number as ISA13)	I16 I12	N0 N0	1/5 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 *020725*145 4*U*00405*000054913*0*P*^ GS*SR*GRAINSHIP*CN*20000207*0728*0092*X*004050 ST*404*00920001 BX*00*R*BE**CN*K*B BNX*R**S M3*R*20000207*0728 N9*BM*495033230**20000207*0728 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 **PER*IC*CONTACT NAME*TE*123-123-1234** N1*CN*GRAIN COMMODITIES CO N3*12 SMITH STREET N4*CLINTON*ON N1*PF*GRAIN SHIPPER INC N3*2217 HIGH STREET N4*WINNIPEG*MB R2*CN*S****R H3*NP LX*1 L5*1*WHEAT*0113710*T L5*1*PPD TO LONGLAC CC BEYOND L0*1***71384*E***1*CLD SE*26*00920001 GE*1*0092 IEA*1*000054913

ISA Segment: Interchange Control Header

ISA*00	* *00* *ZZ*GENE 405*000054913*0*P*^	RIC	*02*CN	*020725*145	
	Element	Data		Data Cł	naracters
Seq	Name		Element	Type	Min/Max
ISA01	Authorization Information Q	ualifier	101	ID	2/2
ISA02	Authorization Information (ten spaces)		102	AN	10/10
ISA03	Security Information Qualifie	er	103	ID	2/2
ISA04	Security Information		104	AN	10/10
ISA05	Interchange ID Qualifier		105	ID	2/2
ISA06	Interchange Sender ID (fill out with spaces)		106	AN	15/15
ISA07	Interchange ID Qualifier (If RR SCAC use 02)		105	ID	2/2
ISA08	Interchange Receiver ID (RR SCAC- fill out field with	spaces)	107	AN	15/15
ISA09	Interchange Date (YYMMDD)	,	108	DT	6/6
ISA10	Interchange Time (HHMM)		109	ТМ	4/4
ISA11	Repetition Separator (Suggest "^"		165		1/1
ISA12	Interchange Control Versior (Value 00405)	Number	111	ID	5/5
ISA13	Interchange Control Numbe (number assigned by sende		112	N0	9/9
ISA14		d	113	ID	1/1
ISA15	Usage Indicator (P = Production, T = Test)		114	ID	1/1
ISA16	Component Element Separa	ator	115		1/1

157*00* *00* *77*CENEDIC *02*CN

GS Segment: Functional Group Header

GS*SR*GRAINSHIP*CN*20000207*0728*0092*X*004050

Elemen	nt Element	Data Data	(Characters	
Seq	Name	Element	Туре	Min/Max	
GS01	Functional Identifier Code	479	ID	2/2	
	(SR = Rail Carrier Shipment Inform	mation)			
GS02	Application Sender's Code	142	AN	2/15	
	(Customer's sender ID)				
GS03	Application Receiver's Code	124	AN	2/15	
	(CN = Canadian National)				
GS04	Date	373	DT	8/8	
	(CCYYMMDD)				
GS05	Time	337	TM	4/6	
	(HHMM)				
GS06	Group Control Number	28	N0	1/9	
	(Assigned number originated and maintained by the sender)				
GS07	Responsible Agency Code	455	ID	1/2	
	(X = Accredited Standards Commit	ttee X12)			
GS08	Version / Release / Industry Identit	y 480	AN	1/12	
	(CN is using version 004050 of the	X12 EDI Standards)			

ST Segment: Transaction Set Header

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

ST*404*00920001

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

BX Segment: General Shipment Information

BX*00*R*BE**CN*K*B

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
BX01	Transaction Set Purpose Code	353	ID	2/2
	(00 = Original)			
BX02	Transportation Method/Type Code	91	ID	1/2
	$(R = Rail\})$			
BX03	Shipment Method Of Payment	146	ID	2/2
	(PP = Prepaid, CC = Collect, BE = prepa	id local collect b	eyond)	
BX05	Standard Carrier Alpha Code	140	ID	2/4
	(CN = CN Rail)			
BX06	Weight Unit Code	188	ID	1/1
	(L = Pounds, K = Kilograms)			
BX07	Shipment Qualifier	147	ID	1/1
	(B = Bill of Lading for Individual Shipm	ent)		

BNX Segment: Rail Shipment Information

BNX*R**S

Elemen <u>Seq</u>	t Element Name	Data Element	Data Type	Characters Min/Max
BNX01	Shipment Weight Code (R = Rail carrier scale required)	460	ID	1/1
BNX03	(N = Per car charge) B 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*20000207*0728

Elemen <u>Seq</u>	t 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	ТМ	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*495033230**20000207*0728

Element Element		Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N901	Reference Number Qualifier (BM = Bill of Lading number) (PO = Purchase order number) (IL = GT Secure or GT Pro number)	128	ID	2/2
N902	(Max 15 characters for B/L # (BM))	127	AN	1/30
N904	Date	373	DT	8/8
N905	(CCYYMMDD, required for B/L (BM)) Time (HHMM, 24 hour clock 0001-2359)	337	ТМ	4/6

N7 Segment: Equipment Details

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

Element Element		Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N701	Equipment Initial	206	AN	1/4
N702	Equipment Number	207	AN	1/10
N703	Weight	81	R	1/8
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*010100**GR*297123*9933*****0

Elemen Seq	t 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 = Location number CW = CWB contract number DK = Platform number (producer/dealer au	128 athorization)	ID	2/3
	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 v Expressed as percentage xxx.x ZT = Milling in transit number	veight of grain		
GA05	Reference Identification Reference number paired with GA04	127	AN	1/30
GA06	Week Loading week expressed as YYWW	642	N0	4/4
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 incentiv This would be matched with GA04/05	1470 e	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
GA12	Cdn Wheat Board Marketing Class Type C = Consigned S = Street	1278	ID	1/1
GA13	Yes/No Condition Or Response Code Y = Direct hit (direct to departure wharf for N = Unload at terminal		ID	1/1
GA14	If GA13 is Y, vessel and voyage info is re- Location Identifier	quired in CM segn 310	nent) AN	1/30

	If GA13 is equal to N, then value in GA14 could be terminal or staging area				
GA15	State Or Province Code	156	ID	2/2	
	Paired with GA14 if applicable				
GA16	Percent Qualifier	1004	ID	1/2	
	SF = Percent dockage				
	SG = Test weight				
	SD = Moisture content				
	SE = Protein content				
GA17	Percent	954	R	1/10	
	Paired with GA16				

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.

F9**WATSON*SK

Data	Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
F902	Origin Station	101	AN	2/19
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.

D9**CLINTON*ON

Elemen	nt Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
D902	Destination Station	300	AN	2/19
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 N1*CN*GRAIN COMMODITIES CO N3*12 SMITH STREET N4*CLINTON*ON N1*PF*GRAIN SHIPPER INC N3*2217 HIGH STREET N4*WINNIPEG*MB

Element Element		Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N101	Entity Identifier Code (CN = Consignee) (SH = Shipper) (C1 = Care of Party) (PF = Payor of Freight	98	ID	2/2
N102	Name	93	AN	1/27

N3 Segment: Address

Elemen	t Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
N301	Address Information	166	AN	1/30
N302	Address Information	166	AN	1/30

N4 Segment: City

Elemer Seq	nt Element Name	Data Element	Data Type	Characters Min/Max
Beq	Ivanie	Element	Type	IVIII/IVIdA
N401	City Name	19	AN	2/19
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****R

Element Element		Data	Data	Characters
Seq	Name	Element	Туре	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 (R	133 ail))	ID	1/2
R206	Transportation Method/Type Code	91	ID	1/2
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H3 Segment: Special Handling Instructions

H3*NP

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

LX Segment: Assigned Number

LX*1

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

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 Element		Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
L501	Line Number	213	N0	1/3
L502	Commodity Description	79	AN	1/50
L503	Commodity Code	22	AN	1/16
	(7 digit Standard Transportation Cor (0113710 = Wheat)	nmodity Code (STCC	())	
L504	Commodity Code Qualifier (T = Standard Transportation Comm	23 odity Code (STCC))	ID	1/1

L0 Segment: Line Item, Quantity and Weight

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

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Type	Min/Max
-				
L001	Lading Line Item Number	213	N0	1/3
L004	Weight	81	R	1/8
L005	Weight Qualifier	187	ID	1/2
	(E = Estimated Weight)			
L008	Lading Quantity	80	N0	1/7
L009	Packaging Form Code	211	ID	3/3
	(CLD = Carload)			
L011	Weight Unit Code	188	ID	1/1
	(L = Pounds)			
	(K = Kilograms)			

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SE Segment: Transaction Set Trailer

SE*27*00920001

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

GE Segment: Functional Group Trailer

GE*1*0092

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

IEA Segment: Interchange Control Trailer

IEA*1*000054913

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

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

GS*SR*GRAINSHIP*CN*20000207*0728*0092*X*004050 ST*404*00920001 BX*00*R*PP**CN*K*B****10**2 BNX*R**S M3*R*20000207*0728 N9*BM*495033230**20000207*0728 N7*CN*123456*71384*E******RR GA*N*010100**GR*297123*9933*****0 F9**WATSON*SK D9**ST ANSGAR*IA N1*SH*GRAIN SHIPPER INC N3*123 ROAD N4*WATSON*SK **PER*IC*CONTACT NAME*TE*123-123-1234** N1*CN*AGRI TRADING INC N3*12 SMITH STREET N4*ST ANSGAR*IA N1*C1*GRAIN MILLERS CORP. N3*2217 HIGH STREET N4*ST ANSGAR*IA N1*CB*NG JENSEN 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*******78*10769.52**MP*138 XH*USD*N****138 SE*30*00920001 GE*1*0092

ISA Segment: Interchange Control Header

ISA*00 4*U*00	* *00* *ZZ*GENERIC 405*000054913*0*P*^	C *02*CN	*020725*145	
Elemen	t Element	Data	Data Cl	haracters
Seq	Name	Element	Туре	Min/Max
ISA01	Authorization Information Qualif	ier I01	ID	2/2
ISA02	Authorization Information (ten spaces)	102	AN	10/10
ISA03	Security Information Qualifier	103	ID	2/2
ISA04	Security Information	104	AN	10/10
ISA05		105	ID	2/2
ISA06	Interchange Sender ID (fill out with spaces)	106	AN	15/15
ISA07	Interchange ID Qualifier (If RR SCAC use 02)	105	ID	2/2
ISA08	Interchange Receiver ID (RR SCAC- fill out field with spa	l07 lices)	AN	15/15
ISA09	Interchange Date (YYMMDD)	, 108	DT	6/6
ISA10	Interchange Time (HHMM)	109	ТМ	4/4
ISA11	Repetition Separator (Suggest "^"	165		1/1
ISA12	Interchange Control Version Nu (Value 00405)	mber I11	ID	5/5
ISA13	Interchange Control Number (number assigned by sender)	112	N0	9/9
ISA14		113	ID	1/1
ISA15	Usage Indicator (P = Production, T = Test)	, I14	ID	1/1
ISA16	Component Element Separator	115		1/1

GS Segment: Functional Group Header

GS*SR*GRAINSHIP*CN*20000207*0728*0092*X*004050

Elemer	nt Element	Data	Data	Characters
Seq	Name	Element	t Type	Min/Max
_				
GS01	Functional Identifier Code	479	ID	2/2
	(SR = Rail Carrier Shipment Infor	mation)		
GS02	Application Sender's Code	142	AN	2/15
	(Customer's sender ID)			
GS03	Application Receiver's Code	124	AN	2/15
	(CN = Canadian National)			
GS04	Date	373	DT	8/8
	(CCYYMMDD)			
GS05	Time	337	TM	4/6
	(HHMM)			
GS06	Group Control Number	28	N0	1/9
	(Assigned number originated and n	naintained by the s	sender)	
GS07	Responsible Agency Code	455	ID	1/2
	(X = Accredited Standards Commi	ttee X12)		
GS08	Version / Release / Industry Identia	~	AN	1/12
	(CN is using version 004050 of the	e X12 EDI Standar	ds)	

<u>ST Segment:</u> <u>Transaction Set Header</u> To indicate the start of a transaction set and to assign a control number

ST*404*00920001

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

BX Segment: General Shipment Information

BX*00*R*PP**CN*K*B****10**2

Element Element		Data	Characters
Name	Element	Type	Min/Max
		• •	
Transaction Set Purpose Code	353	ID	2/2
(00 = Original)			
Transportation Method/Type Code	91	ID	1/2
(R = Rail)			
Shipment Method Of Payment	146	ID	2/2
(PP = Prepaid, CC = Collect, BE = prepaid local collect beyond)			
Standard Carrier Alpha Code	140	ID	2/4
(CN = CN Rail)			
Weight Unit Code	188	ID	1/1
(L = Pounds, K = Kilograms)			
Shipment Qualifier	147	ID	1/1
(B = Bill of Lading for Individual Shipmen	nt)		
Customs documentation handling code	501	ID	2/2
10 = Proforma entered, no B13 required			
GST Exemption declaration code	714	ID	1/1
2 = No GST to apply			
	NameTransaction Set Purpose Code(00 = Original)Transportation Method/Type Code(R = Rail})Shipment Method Of Payment(PP = Prepaid, CC = Collect, BE = prepaidStandard Carrier Alpha Code(CN = CN Rail)Weight Unit Code(L = Pounds, K= Kilograms)Shipment Qualifier(B = Bill of Lading for Individual ShipmentCustoms documentation handling code10 = Proforma entered, no B13 requiredGST Exemption declaration code	NameElementTransaction Set Purpose Code353(00 = Original)Transportation Method/Type Code91Transportation Method/Type Code91(R = Rail})Shipment Method Of Payment146(PP = Prepaid, CC = Collect, BE = prepaid local collect bestStandard Carrier Alpha Code140(CN = CN Rail)Weight Unit Code188(L = Pounds, K= Kilograms)Shipment Qualifier147(B = Bill of Lading for Individual Shipment)Customs documentation handling code501Customs documentation handling code50110 = Proforma entered, no B13 requiredGST Exemption declaration code714	NameElementTypeTransaction Set Purpose Code 353 ID $(00 = Original)$ Transportation Method/Type Code 91 ID $(R = Rail)$ Shipment Method Of Payment 146 ID $(PP = Prepaid, CC = Collect, BE = prepaid local collect beyond)Standard Carrier Alpha Code140ID(CN = CN Rail)Weight Unit Code188ID(L = Pounds, K = Kilograms)Shipment Qualifier147ID(B = Bill of Lading for Individual Shipment)Customs documentation handling code501ID10 = Proforma entered, no B13 requiredGST Exemption declaration code714ID$

BNX Segment: Rail Shipment Information

BNX*R**S

Elemen <u>Seq</u>	t Element Name	Data Element	Data Type	Characters Min/Max
BNX01	Shipment Weight Code (R = Rail carrier scale required)	460	ID	1/1
BNX03	(N = Per car charge) 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.

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Туре	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	ТМ	4/6
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M3*R*20000207*0728

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*495033230**20000207*0728

Elemen	nt Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N901	Reference Number Qualifier	128	ID	2/2
	(BM = Bill of Lading number)			
	(PO = Purchase order number)			
	(IL = GT Secure or GT Pro number 9 chara	acters min/max)		
N902	Reference Number	127	AN	1/30
	(Max 15 characters for B/L # (BM))			
N904	Date	373	DT	8/8
	(CCYYMMDD, required for B/L (BM))			
N905	Time	337	ТМ	4/6
	(HHMM, 24 hour clock 0001-2359)			

N7 Segment: Equipment Details

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

Elemer	nt Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N701	Equipment Initial	206	AN	1/4
N702	Equipment Number	207	AN	1/10
N703	Weight	81	R	1/8
N704	Weight Qualifier	187	ID	1/2
N711	(E = Estimated Weight) Equipment Description Code (RR = Railcar}	40	ID	2/2

GA Segment: Canadian Grain Information

GA*N*010100**GR*297123*9933*****0

Elemen Seq	t 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 = Location number CW = CWB contract number	128	ID	2/3
	 DK = Platform number (producer/dealer au 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 w Expressed as percentage xxx.x ZT = Milling in transit number 			
GA05	Reference Identification Reference number paired with GA04	127	AN	1/30
GA06	Week Loading week expressed as YYWW	642	N0	4/4
GA07	Unload Terminal Elevator Code	899	ID	3/4
GA08	Date	373	DT	8/8
0/100	Date expressed as CCYYMMDD	575	DI	0/0
GA09	Incentive grain rate indicator Number of cars ordered for rate of incentive This would be matched with GA04/05	1470 e	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	1277	ID	1/1
GA12	5 = Contract Cdn Wheat Board Marketing Class Type C = Consigned S = Street	1278	ID	1/1
GA13	Yes/No Condition Or Response Code Y = Direct hit (direct to departure wharf fo N = Unload at terminal If GA13 is Y, vessel and voyage info is rec		ID nent)	1/1

GA14	Location Identifier If GA13 is equal to N, then value in GA14	310 could be terminal o	AN r staging area	1/30
GA15	State Or Province Code Paired with GA14 if applicable	156	ID	2/2
GA16	Percent Qualifier SF = Percent dockage SG = Test weight SD = Moisture content SE = Protein content	1004	ID	1/2
GA17	Percent Paired with GA16	954	R	1/10

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.

F9**WATSON*SK

Data	Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
F902	Origin Station	101	AN	2/19
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.

D9**ST ANSGAR*IA

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
-				
D902	Destination Station	300	AN	2/19
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 N1*CN*AGRI TRADING INC N3*12 SMITH STREET N4*ST ANSGAR*IA N1*C1*GRAIN MILLERS CORP N3*2217 HIGH STREET N4*ST ANSGAR*IA N1*CB*NG JENSEN

Elemen	nt Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
N101	Entity Identifier Code	98	ID	2/2
	(CN = Consignee)			
	(SH = Shipper)			
	(C1 = Care of Party)			
	(PF = Payor of Freight) (CB = Customs Broker Name)			
N102	Name	93	AN	1/27
11102	Name))		1/2/
N3 Se	gment: Address			
	ginent. <u>Audress</u>			
Elemer	nt Element	Data	Data	Characters
Seq	Name	Element	Type	Min/Max
-				
N301	Address Information	166	AN	1/30
N302	Address Information	166	AN	1/30
N4 Se	<u>gment: City</u>			
		_	_	
	nt Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Туре	Min/Max
N401	City Name	19	AN	2/19
N402	State Or Province Code	156	ID	2/19
N402	Postal Code	116	ID ID	3/9
11105	1 00001 0000	110		

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

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
R201	Standard Carrier Alpha Code (SCAC)	140	ID	2/4
	(CN = Canadian National etc)			
R202	Routing Sequence Code	133	ID	1/2
	(S = Origin Carrier, Shipper's Routing (R	tail)		
	$(1 = 1^{st} Carrier after origin carrier)$			
	$(2 = 2^{nd}$ Carrier after origin carrier)			
R203	R260 Junction of Interchange	19	AN	2/30
R206	Transportation Method/Type Code	91	ID	1/2
	(R = Rail)			

H3 Segment: Special Handling Instructions

H3*NP

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

LX Segment: Assigned Number

LX*1

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
LX01	Assigned Number (Number assigned for differentiation with	554 thin a transaction s	N0 set)	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

Elemer	nt Element	Data	Data	Characters
<u>Seq</u>	Name	Element	Type	Min/Max
L501	Line Number	213	N0	1/3
L502	Commodity Description	79	AN	1/50
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L503	Commodity Code	22	AN	1/16
	(7 digit Standard Transportation Commodit	y Code (STCC))		
	(0113710 = Wheat)			
L504	Commodity Code Qualifier	23	ID	1/1
	(T = Standard Transportation Commodity C)	Code (STCC))		

L0 Segment: Line Item, Quantity and Weight

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

Elemer	nt Element	Data	Data	Characters
Seq	Name	Element	Туре	Min/Max
L001	Lading Line Item Number	213	N0	1/3
L004	Weight	81	R	1/8
L005	Weight Qualifier	187	ID	1/2
	(E = Estimated Weight)			
L008	Lading Quantity	80	N0	1/7
L009	Packaging Form Code	211	ID	3/3
	(CLD = Carload)			
L011	Weight Unit Code	188	ID	1/1
	(L = Pounds)			
	(K = Kilograms)			

X1 Segment: Export License

X1********78*10769.52**MP*138

Elemen	nt Element	Data	Data	Characters
Seq	Name	Element	Type	Min/Max
X110	Lading quantity	80	NO	1/7
X111	Lading value	148	R	2/9
X113	Unit/measure code	355	ID	2/2
X114	Unit price	212	R	1/17

XH Segment: Proforma – B13 Information

XH*USD*N****138

Elemen	t Element	Data	Data	Characters
Seq	Name	Element	Type	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

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

GE Segment: Functional Group Trailer

GE*1*0092

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

IEA Segment: Interchange Control Trailer

IEA*1*000054913

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