



# **Implementation Guide to Rail Carrier Waybill Interchange**

**EDI 417**

# **Overview**

## **Purpose of Advance Consist**

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The EDI 417 Rail Carrier Waybill Interchange can be used to provide a rail carrier or customer with detailed movement instructions pertinent to a rail carrier shipment and is used by all Class 1 rail carriers in the US and Canada.

## **EDI Version & Guidelines**

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The EDI 417 Rail Carrier Waybill Interchange, closely complies with the Accredited Standards Committee X12. We are currently sending EDI 417 in Version 7030.

## **Customized Formats**

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It is entirely the responsibility of the Sender of the 417 who requires coding or mapping structure other than expressly written in the Guidelines and here in the CN Implementation documents to have the necessary changes performed at their system or through a Value Added Network (VAN).

## **Connection to CN**

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CN has a secure MFT server [edimft.cn.ca](http://edimft.cn.ca) or we can push to an FTP server if you require. CN also connects with all major VAN's (Value Added Networks) and interconnects can be made available.

## **CN Contact**

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CN provides an email address for customers to provide other information and inquiries. The EDI Data Quality Coordinator Team email address is [EDIMGR@cn.ca](mailto:EDIMGR@cn.ca). You can also visit us at [www.cn.ca](http://www.cn.ca).

# Rail Carrier Waybill Interchange (EDI 417)

This section contains the details of how the EDI 417 message will be formatted.

## Sample EDI 417

ISA\*00\*        \*00\*        \*02\*CN        \*ZZ\*GENERIC  
\*170710\*1339\*U\*00703\*006298413\*0\*P\*>  
GS\*WB\*CN\*GENERIC\*20180710\*1336\*98826\*X\*007030  
ST\*417\*988260001  
BX\*00\*R\*PP\*\*CN\*L\*B  
BNX\*R\*\*S  
N9\*BM\*1257\*\*20180710\*1336  
N7\*CN\*123456\*213360\*N\*\*\*\*\*RR  
F9\*\*WATSON\*SK  
D9\*\*VANCOUVER\*BC  
N1\*SH\*GENERIC CARLOAD INC  
N3\*123 ROAD  
N4\*WATSON\*SK\*S0K 4V0  
PER\*IC\*CONTACT NAME\*TE\*123-123-1234  
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  
R2\*CN\*S\*\*\*\*R  
LX\*1  
L5\*1\*WALLBOARD\*3275440\*T  
L0\*1\*\*\*213360\*N\*\*\*1\*CLD  
SE\*27\*988260001  
GE\*1\*98826  
IEA\*1\*006298413

## ISA Segment: Interchange Control Header

ISA\*00\*      \*00\*      \*02\*CN      \*ZZ\*GENERIC  
\*170710\*1339\*U\*00703\*006298413\*0\*P\*>

Element Seg	Element Description	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	I04	AN	10/10
ISA05	Interchange ID Qualifier	I05	ID	2/2
ISA06	Interchange Sender ID (CN - 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 (GENERIC- 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\*WB\*CN\*GENERIC\*20180710\*1336\*98826\*X\*007030**

<u>Element Seg</u>	<u>Element Description</u>	<u>Data Element</u>	<u>Data Type</u>	<u>Characters Min/Max</u>
GS01	Functional Identifier Code (WB= Rail Carrier Waybill Interchange (417))	479	ID	2/2
GS02	Application Sender's Code	142	AN	2/15
GS03	Application Receiver's Code	124	AN	2/15
GS04	Date (YYYYMMDD)	373	DT	8/8
GS05	Time (HHMM)	337	TM	4/8
GS06	Group Control Number (Assigned number originated and maintained by CN)	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\*417\*988260001**

<u>Element Seg</u>	<u>Element Description</u>	<u>Data Element</u>	<u>Data Type</u>	<u>Characters Min/Max</u>
ST01	Transaction Set Identifier Code (417=Rail Carrier Waybill Interchange)	143	ID	3/3
ST02	Transaction Set Control Number (Sequential control number generated by CN)	329	AN	4/9

**BX Segment: General Shipment Information****BX\*00\*R\*PP\*\*CN\*L\*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\*R\*\*S**

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

**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\*1257\*\*20180710\*1336**

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\*213360\*N\*\*\*\*\*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

**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.

**F9\*\*WATSON\*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.

**D9\*\*VANCOUVER\*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

**PER Segment: Administrative Communications Contact**

**PER\*IC\*CONTACT NAME\*TE\*123-123-1234**

Element Seq	Element Name	Data Element	Data Type	Characters Min/Max
PER01	Contact function code (IC = Information contact)	366	ID	2/2
PER02	Name	93	ID	1/60
PER03	Communication number qualifier (TE=telephone)	365	ID	2/2
PER04	Communication number	364	ID	1/25

**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

**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\*WALLBOARD\*3275440\*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)) (eg. WALLBOARD = 3275440)	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\*\*\*213360\*N\*\*\*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\*988260001**

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\*98826**

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\*006298413**

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