



**Implementation Guide
Terminal Operations and Intermodal Ramp
Activity Message for Port Operators**

**EDI 322
Ramping for Port Operators**

Version 4010

Introduction

This document outlines the systems and process requirements for the Port Operator and CN to electronically exchange information for import container shipments to increase both the clarity of information and operational efficiencies.

The EDI Ramp Project focuses on the clarity and timeliness of the information exchanged between Port Operator, Ocean Carriers and CN to ensure:

- Prior to vessel arrival, all containers expected to be discharged for transport by CN are known and communicated.
- Prior to vessel arrival, sufficient time is available for the Port Operator and CN to receive, process, and review Invoice and Bill of Lading information received from the Ocean Carriers.
- Prior to ramping containers onto railcars, each container has a waybill in the CN SRS Waybill system with sufficient information to allow safe and uninterrupted transport.
- Prior to ramping containers on railcars, CN electronically advises the Port Operator which containers are not to be ramped due to insufficient waybill information.
- At the time of ramping containers on railcars, the Port Operator electronically advises CN of the ramping events this negating the need to communicate this information via fax or other manual effort.

CN Contact

The **EDI Onboarding team** email address is EDIMGR@cn.ca. You can also visit us at www.cn.ca.

3 Steps for Operational Efficiencies

1. Preliminary Validation

The Port Operator sends an EDI 322 message to CN of all containers that are expected on an offshore vessel for transport by CN.

CN examines all waybills in the CN SRS Waybill system for these containers and requests any missing information from the Ocean Carriers.

2. Validation

The Port Operator sends an EDI 322 message to CN in the hours prior to the actual start of ramping containers on railcars from the vessel.

CN's automated system validates that each container has a valid waybill and immediately triggers an EDI 824 Acknowledgement Message to the Port Operator for those containers **OK to Ramp** and those that are **Do Not Ramp**.

3. Ramp Containers on Railcars

The Port Operator sends an EDI 322 message to CN as containers are ramped on railcars.

CN's automated system processes the ramp events and updates the container and railcar records. CN investigates any instances where the automated reprocess could not be completed and updates all that can be fixed.

CN sends an EDI 824 Acknowledgement Message to the Port Operator for containers that should not be ramped with the reason the container must be deramped (e.g., Car is Overloaded or Dangerous Goods without Documentation). These instances are expected to be greatly reduced or eliminated by the Preliminary Validation and Validation steps.

Terminal Operations and Intermodal Ramp Activity Message Mapping Guide (EDI 322)

This section contains the details of how the EDI 322 message is formatted.

Example EDI 322 message

```
ISA*00*      *00*      *ZZ*PORTOPERATOR  *02*CN      *250125*1226*U*00401*000037242*0*P*>
GS*SO*PORTOPERATOR*CN*20250125*1226*37242*X*004010
ST*322*37242001
Q5*AL*20250125*1009*LT
N7*AAAU*123456*11818*G*3840*****CN*ABCD****A*K*7*HH***45G1*ABCD
DTM*140*20250125*1009*LT
M7*1234567
W2*AAAU*1234567**CN*L
NA*EQ*CNRU1234567*GTW*111111*F*AB1
V1*9475612*ONE MARVEL**066E****L
R4*6*CS*093804*VANCOUVER*CA
R4*7*CS*380002*CHICAGO, IL
N1*MC*CN RAIL*93*CNR
N9*BM*031258822270103
SE*17*37242002
GE*1*37242
IEA*1*000037242
```

ISA Segment: Interchange Control Header

ISA*00* *00* *ZZ*PORTOPERATOR *02*CN *250125*1226*U*00401*000037242*0*P*>

Ref. Des.	Name	Data Element	Attributes	
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 (GENERIC - fill out 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 00401)	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	AN	1/1

GS Segment: Functional Group Header**GS*SO*PORTOPERATOR*CN*20250125*1226*37242*X*004010**

Ref. Des.	Name	Data Element	Attributes	
GS01	Functional Identifier Code (SO=Ocean Shipment Information 322)	479	ID	2/2
GS02	Application Sender's Code (CN=Canadian National)	142	AN	2/15
GS03	Application Receiver's Code	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	480	AN	1/12

ST Segment: Transaction Set Header

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

ST*322*37242001

Ref. Des.	Name	Data Element	Attributes	
ST01	Transaction Set Identifier Code (322 = Terminal Operations and Intermodal Ramp Activity)	143	ID	3/3
ST02	Transaction Set Control Number (Sequential control number generated by Customer)	329	AN	4/9

Q5 Segment: Status Details

Q5*AL*20250125*1009*LT

Ref. Des.	Name	Data Element	Attributes	
Q501	Shipment Status Code (AL = Loaded on Rail) Ramp containers to railcars	157	ID	1/2
Q502	Date (CCYY-MM-DD)	373	DT	8/8
Q503	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
Q504	Time Code (LT = local time of event)	623	ID	2/2

N7 Segment: Equipment Details

N7*AAAU*123456*11818*G*3840***CN*ABCD****A*K*7*HH***45G1*ABCD**

Ref. Des.	Name	Data Element	Attributes	
N701	Equipment Initial	206	AN	2/4
N702	Equipment Number	207	AN	1/10
N703	Weight	81	R	1/8
N704	Weight Qualifier (N = net weight) (G = gross weight)	187	ID	1/2
N705	Tare Weight	167	N0	3/8
N711	Equipment Description Code (CN = container)	40	ID	2/2
N712	Standard Carrier Alpha Code (SCAC of the Equipment Owner)	140	ID	2/4
N716	Tare Qualifier Code (A = actual)	571	ID	1/1
N717	Weight Unit Code (L = pounds) (K = kilograms)	188	ID	1/1
N718	Equipment Number Check Digit	761	N0	1/1
N722	Equipment Type (ISO size and type code, a four-digit code for container type based on the ISO standard)	24	ID	4/4
N723	Standard Carrier Alpha Code (SCAC of the equipment operator responsible for moving the cargo)	140	ID	2/4

DTM Segment: Date/Time Reference**DTM*140*20250125*1009*LT**

Ref. Des.	Name	Data Element	Attributes	
DTM01	Date/Time Qualifier (140 = actual)	374	ID	3/3
DTM02	Date (CCYY-MM-DD)	373	DT	8/8
DTM03	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
DTM05	Time Code (LT = local time)	623	ID	2/2

M7 Segment: Seal Numbers**M7*1234567**

Ref. Des.	Name	Data Element	Attributes	
M701	Seal Number	225	AN	2/15

W2 Segment: Equipment Identification**W2*AAAU*1234567**CN*L**

Ref. Des.	Name	Data Element	Attributes	
W201	Equipment Initial	206	AN	1/4
W202	Equipment Number	207	AN	1/10
W204	Equipment Desc Code (CN = container)	40	ID	2/2
W205	Equipment Status Code (L = load)	578	ID	1/2

NA Segment: Cross-Reference Equipment**NA*EQ*CNRU1234567*GTW*111111*F*AB1**

Ref. Des.	Name	Data Element	Attributes	
NA01	Reference Identification Qualifier (EQ = equipment)	128	ID	2/3
NA02	Reference Identification (Container initial and number)	127	AN	1/30
NA03	Equipment Initial (Initial on flat car)	206	AN	2/4
NA04	Equipment Number (Number on flat car)	207	AN	1/10
NA05	Cross-Reference type code (F = railcar (flat car))	231	ID	1/1
NA06	Position (1st position A = Platform) (2nd position B = Bottom T = Top) (3rd position 1 = Slot (1,2,3,4))	219	AN	1/3

V1 Segment: Vessel Identification**V1*9475612*ONE MARVEL**066E****L**

Ref. Des.	Name	Data Element	Attributes	
V101	Vessel Code (Lloyd's Code or Radio Call sign as qualified in V108)	597	ID	1/8
V102	Vessel Name (Name of ship as documented in "Lloyd's Register of Ships")	182	AN	2/28
V104	Flight/Voyage Number (Identifying designator for the flight or voyage on which the cargo travels)	55	AN	2/10
V108	Vessel Code Qualifier (L = Lloyd's Register of Shipping) (C = Ship's Radio Call Signal)	897	ID	1/1

R4 Segment: Port or Terminal

R4*6*CS*093804*VANCOUVER*CA
R4*7*CS*380002*CHICAGO, IL

Ref. Des.	Name	Data Element	Attributes	
R401	Port or Terminal Function Code (6 = origin rail terminal) (7 = destination rail terminal)	115	ID	1/1
R402	Location Qualifier (SL = US SPLC Code) (CS = Canadian SPLC Code)	309	ID	1/2
R403	Location Identifier (SPLC Code)	310	AN	1/30
R404	Port Name	114	AN	2/24
R405	Country Code	26	ID	2/3
R408	State or Province Code	156	ID	2/2

N1 Segment: Name

N1*MC*CN RAIL*93*CNR

Ref. Des.	Name	Data Element	Attributes	
N101	Entity Identifier Code (CN = Consignee) (SH = Shipper) (MC = Motor Carrier)	98	ID	2/3
N102	Name	93	AN	1/35
N103	Identification Code Qualifier (93 = code assigned by CN)	66	ID	1/2
N104	Identification Code (Carter code identified in N103)	67	AN	2/80

N9 Segment: Reference Identification**N9*BM*031258822270103**

Ref. Des.	Name	Data Element	Attributes	
N901	Reference Number Qualifier (WY = waybill number) (BM = Bill of Lading number) (P8 = pick up number)	128	ID	2/3
N902	Reference Identification	127	AN	1/30

SE Segment: Transaction Set Trailer**SE*17*37242002**

Ref. Des.	Name	Data Element	Attributes	
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*37242**

Ref. Des.	Name	Data Element	Attributes	
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*000037242**

Ref. Des.	Name	Data Element	Attributes	
IEA01	Number of included Functional Groups	I16	N0	1/5
IEA02	Interchange Control Number (Same number as ISA13)	I12	N0	9/9

CN Intermodal Terminals and Ports

The following lists CN Intermodal Terminals and Port Operations that can be an origin and destination on CN lines.

<u>D/K</u>	<u>SPLC</u>	<u>Station Abbr. 333</u>	<u>St/Pr</u>	<u>Full Station Name</u>
	328754	ARCADIA	WI	ARCADIA
01535	044761	BRAINTTER	ON	BRAMPTON INTER TERM
	082417	CALLOGPAR	AB	CALGARY LOGIST PARK
	328180	CHIFALLS	WI	CHIPPEWA FALLS
3901	380002	CHIINTTER	IL	CHICAGO INTER TERM
3801	315986	DETINTTER	MI	DETROIT INTER TERM
	500900	DULUTH	MN	DULUTH
80101	085646	EDMINTTER	AB	EDMONTON INTER TERM
13841	012548	FAICOVIMP	NS	FAIRVIEW COVE IMPEX
12493	093614	FRASURIMP	BC	FRASER SURREY IMPEX
13841	012504	HALHALTER	NS	HALIFAX HALTERM TER
13841	012500	HALIFAX	NS	HALIFAX
13841	012501	HALINTTER	NS	HALIFAX INTER TERM
	368700	INDINTTER	IN	INDIANAPOLIS INTER TERM
2015	487230	JACKSON	MS	JACKSON
3901	384040	JOLYARD	IL	JOLIET YARD
	047712	MALPORT	ON	MALPORT
2006	439875	MEMINTTER	TN	MEMPHIS INTER TERM
01535	044716	MISINTSER	ON	MISSISSAUGA INT SER
	479800	MOBILE	AL	MOBILE
01822	030313	MONBICKER	PQ	MONTREAL BICKERDIKE
13400	015289	MONINTTER	NB	MONCTON INTER TERM
01822	030308	MONTERMON	PQ	MONTREAL TERMONT
01822	030191	MONTASYAR	PQ	MONTREAL TASCH YAR
01822	030318	MONRACTER	PQ	MONTREAL RACINE TER
01822	030305	MONWHARF	PQ	MONTREAL WHARF
01822	030002	MONULTDEP	PQ	MONTREAL ULTRA DEPO
2002	646505	MAYYARD	LA	MAYS YARD
2002	647000	NEWORLEAN	LA	NEW ORLEANS
2002	329248	NEWRICHMO	WI	NEW RICHMOND
12200	096201	PRIGEORGE	BC	PRINCE GEORGE
12442	097438	PRIRUPTER	BC	PRINCE RUPERT TERM
	070156	REGINTTER	SK	REGINA INTER TERM
12493	093804	ROBBANK	BC	ROBERTS BANK
80103	072420	SASINTTER	SK	SASKATOON INTER TER
14428	016004	STJOHIMPE	NB	SAINT JOHN IMPEX
12493	093932	VANCENPIE	BC	VANCOUVER CENT PIER
12493	093696	VANINTTER	BC	VANCOUVER INTER TER
12493	093934	VANVANter	BC	VANCOUVER VANTERM
80102	061265	WINSYMYAR	MB	WINNIPEG SYMINGTON YARD

Intermodal Service Codes

Code	Equipment Owner	Service	Note: International versus Domestic
15	Motor Carrier	Ramp to Ramp	
20	Rail Carrier	Door to Door	
22	"	Door to Ramp	
25	"	Ramp to Ramp	
27	"	Ramp to Door	
40	SS Line - Domestic	Door to Door	Domestic containers movements without prior or subsequent waterborne movement. Applies to US/Canada/Mexico traffic. Equipment supplied by stack operation or Steamship Line.
42	"	Door to Ramp	
45	"	Ramp to Ramp	
47	"	Ramp to Door	
60	Patron / Customer	Door to Door	
62	"	Door to Ramp	
65	"	Ramp to Ramp	
67	"	Ramp to Door	
80	SS Line - IMPEX	Door to Door	International shipments with prior or subsequent waterborne movement. Includes Alaska, Hawaii, Puerto Rico. Equipment supplied by stack operation or steamship Line.
82	"	Door to Ramp	
85	"	Ramp to Ramp	
87	"	Ramp to Door	