Implementation Guide
Terminal Operations and Intermodal Ramp Activity Message

EDI 322

Version 401

Purpose of Terminal Operations and Intermodal Ramp Activity message EDI 322

This EDI 322 Terminal Operations and Intermodal Ramp Activity message provides timely reported events and estimated times of arrival of your shipments from CN's Service Reliability Strategy (SRS) system.

EDI Version & Guidelines

This Shipment Status Message EDI 322, version 004010, closely complies with the official published Guidelines of the Information Systems Agreement, Standards Work Group.

Customized Formats

It is entirely the responsibility of the Receiver of the 322 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.

Connection to CN

CN has a secure MFT server https://mftedi.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.

Schedule

Schedules to automate the output at times convenient to your business process are available. Each event that has occurred since the last transmission will be sent. The CN EDI Scheduler provides flexible production times for the 322. The 322 can be produced up to a maximum of 46 times per day in ½ hour intervals except for 2:00 and 2:30, or a minimum of once per week.

CN Contact

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

Client Profile Set Up

Status Code (DE 157)

The Status Code messages are controlled by CN in a Client Profile, which can be updated at any time upon request. The codes are found in the Q501 segment.

You may select which Status Codes are to be included in your Shipment Status Message.

The CN's EDI 322 provides the following Intermodal Status Codes:

Event	Event Code
Spotted at Customer Location	S
Loading on Spot at Customer Location	L
Released Loaded by Customer	XA
Picked up from Customer Location	AF
In-Gate	I
Loaded on rail (Ramp)	AL
Rail Departure from Origin Intermodal Ramp	RL
Intra-Terminal Movement (Out)	TM
Intra-Terminal Movement (In)	T
Departed from Intermediate Rail Location	P
Arrived at Intermediate Rail Location	A
Vessel Arrival	VA
Vessel Departure	VD
Interchange Delivered	J
Interchange Received	R
Rail Arrival at Destination Intermodal Ramp	AR
Unload from Rail (Ground)	UR
Notified	NT
Deliver Appointment Scheduled	AD
Out-Gate	OA
Completed Unloading at Customer Location	D
Unloading on Spot at Customer Location	Z
Bad Order	B
Repaired and/or Released from Bad Order	G

Client Profile - Attributes

An attribute allows you to either include or exclude the following information from your Shipment Status message:

- Identify CN as reporting Carrier
  Origin and Destination Intermodal Ramp
- SPLC
  Local or Universal Time
  Pick up Number
- Estimated Time of Arrival
- Exclude Empty Repositioning Bookings
- Last Free Day of Storage

Identify CN as Carrier
If you select this attribute, CN will be identified in an N1 segment as the reporting carrier.

Origin and Destination Intermodal Ramp
If you select this attribute, the Origin Intermodal Ramp (RO), Destination Intermodal Ramp (RD), Intermodal Terminal Name, SPLC Identifier (20) and SPLC of the intermodal terminal will be provided in two N1 segments.

SPLC
The default is to display Schedule D and Schedule K codes. If you select this attribute, the SPLC will be provided.

Local or Universal Time
The default is the Universal Time coordinate. If you select this attribute, Local time will be provided.

Pick Up Number
If you select this attribute, the pickup number will be provided in an N9 segment.

Estimated Time of Arrival
If you select this attribute, an Estimated Time of Deramp at the CN destination intermodal terminal will be provided in a DTM segment.

Exclude Empty Repositioning Bookings
The default is to include all bookings. If you select this attribute, all empty repositioning bookings will be excluded.

Last Free Day of Storage
If you select this attribute, the last free day of storage would be provided. This would create a new NT SE loop and it will be generated after each deramp at destination or notification at destination event (UR event or NT event). The last free day will appear as a Q5*NF event with the date and time for the NF event being the last free day.

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

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

Example EDI 322 Message

```
ISA*00*        *00*        *ZZ*CN         *ZZ*GENERIC      *250125*1226*U*00401*000037242*0*P*>
GS*SO*CN*GENERIC*20250125*1226*37242*X*004010
ST*322*37242001
Q5*AR*20250125*1009*LT**CALGARY LOG PARK*AB*CA***LQ*51.110711**LK*-113.834840
N7*CNRU*123456*32697*N*10500******CN****5300*A*L*1**114*0
DTM*140*20250125*1009*LT
M7*4377911
W2*CNRU*123456**CN*L**25
NA*EQ*CNRU1234561*GTW*676024*F*AB1
R4*5*CS*082417*CALGARY LOG PARK*CA***AB
R4*6*SL*380002*CHICAGO INTER TERM*US***IL
R4*7*CS*082417*CALGARY LOG PARK*CA***AB
N1*SH*INTERMODAL SHIPPER INC*93*INS
N1*CN*INTERMODAL CONSIGNEE INC*93*INC
N1*MC*TRANSPORT*93*CNRZ
N9*WY*813216
N9*BM*031258822270103
N9*P8*821795
N9*CN*6222868832-05
N9*CR*00328860016346584
N9*SO*031258822270103
N9*CE*NOEEI 30.36
SE*25*37242002
GE*1*37242
IEA*1*000037242
```

ISA Segment: Interchange Control Header

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

Ref. Des.	Name	Data Element	Attributes	
ISA01	Authorization Information Qualifier	I01	ID	2/2
ISA02	Authorization Information	I02	AN	10/10
	(Ten spaces)			
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	I06	AN	15/15
	(GENERIC - fill out with spaces)			
ISA07	Interchange ID Qualifier	I05	ID	2/2
	(If RR SCAC use 02)			
ISA08	Interchange Receiver ID	I07	AN	15/15
	(CN - fill out field with spaces)			
ISA09	Interchange Date	I08	DT	6/6
	(YYMMDD)			
ISA10	Interchange Time	I09	TM	4/4
	(HHMM)			
ISA11	Repetition Separator	I65		1/1
	(Suggest "^")			
ISA12	Interchange Control Version Number	I11	ID	5/5
	(Value 00401)			
ISA13	Interchange Control Number	I12	N0	9/9
	(a control number assigned by sender)			
ISA14	Acknowledgment Requested	I13	ID	1/1
	(0 = none requested)			
	(1= requested)			
ISA15	Usage Indicator	I14	ID	1/1
	(P = Production)			
	(T = Test)			
ISA16	Component Element Separator	I15		1/1
	(Suggest ":")			

GS Segment: Functional Group Header

GS*SO*CN*GENERIC*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 CN)	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 CN)	329	AN	4/9

Q5 Segment: Status Details

Q5*AR*20250125*1009*LTCALGARY LOG PARK*AB*CA***LQ*51.110711**LK*-113.834840**

Ref. Des.	Name	Data Element	Attributes	
Q501	Shipment Status Code (AR = rail arrival at destination terminal)	157	ID	1/2
Q502	Date (CCYYMMDD)	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
Q506	City Name	19	AN	2/30
Q507	State or Province Code	156	ID	2/2
Q508	Country Code	26	ID	2/3
Q511	Reference Identification Qualifier (LQ = latitude expressed in degrees, Minutes and seconds)	128	ID	2/3
Q512	Reference Identification	127	AN	1/30
Q514	Reference Identification Qualifier (LK = longitude expressed in degrees, Minutes and seconds.)	128	ID	2/3
Q515	Reference Identification	127	AN	1/30

N7 Segment: Equipment Details

N7*CNRU*123456*32697*N*10500****CN****5300*A*L*1**114*0**

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	187	ID	1/2
	(N = net weight)			
N705	Tare Weight	167	N0	3/8
N711	Equipment Description Code	40	ID	2/2
	(CN = container)			
N715	Equipment Length	567	N0	4/5
N716	Tare Qualifier Code	571	ID	1/1
	(A = actual)			
N717	Weight Unit Code	188	ID	1/1
	(L = pounds)			
N718	Equipment number check digit	761	N0	1/1
N720	Equipment Height	65	R	1/8
	(114 = 114 inches or 9 ft. 5 in.)			
N721	Width	189	R	1/8

DTM Segment: Date/Time Reference

DTM*140*20250125*1009*LT

Ref. Des.	Name	Data Element	Attributes	
DTM01	Date/Time Qualifier	374	ID	3/3
	(140 = actual)			
DTM02	Date	373	DT	8/8
	(CCYY-MM-DD)			
DTM03	Time	337	TM	4/8
	(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)			
DTM05	Time Code	623	ID	2/2
	(LT = local time)			

M7 Segment: Seal Numbers

M7*4377911

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

W2 Segment: Equipment Identification

W2*CNRU*123456CN*L**25**

Ref. Des.	Name	Data Element	Attributes	
W201	Equipment Initial (should match N701)	206	AN	1/4
W202	Equipment Number (should match N702)	207	AN	1/10
W204	Equipment Description Code	40	ID	2/2
W205	Equipment Status Code (L=Load)	578	ID	1/2
W208	Car Order Service Code (25= ramp to ramp railroad owned)	240	ID	3/5

NA Segment: Cross-Reference Equipment

NA*EQ*CNRU1234561*GTW*676024*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 of flat car)	206	AN	1/4
NA04	Equipment Number	207	AN	1/10
NA05	Cross-Reference type code (F = railcar (flat car)	231	ID	1/1
NA06	Position (1st pos. A = Platform) (2nd pos. B = Bottom T = Top) (3rd pos. 1 = Slot (1,2,3,4))	219	AN	1/3

R4 Segment: Port or Terminal

R4*5*CS*082417*CALGARY LOG PARK*CA***AB
R4*6*SL*380002*CHICAGO INTER TERM*US***IL
R4*7*CS*082417*CALGARY LOG PARK*CA***AB

Ref. Des.	Name	Data Element	Attributes	
R401	Port or Terminal Function Code (5=activity location) (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	2/19
R405	Country Code	26	ID	2/3
R408	State or Province Code	156	ID	2/2

N1 Segment: Name

N1*SH*INTERMODAL SHIPPER INC*93*INS
N1*CN*INTERMODAL CONSIGNEE INC*93*INC
N1*MC*TRANSPORT*93*CNRZ

Ref. Des.	Name	Data Element	Attributes	
N101	Entity Identifier Code (CN = Consignee) (SH = Shipper) (C1 = Care of Party) (N1 = Notify Party) (SF = Shipped From) (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*WY*813216
N9*BM*031258822270103
N9*P8*821795
N9*CN*6222868832-05
N9*CR*00328860016346584
N9*SO*031258822270103
N9*CE*NOEEI 30.36

Ref. Des.	Name	Data Element	Attributes	
N901	Reference Number Qualifier (WY = waybill number) (BM = Bill of Lading number) (P8 = pick up number) (CN = carrier's reference number) (CR = customer reference number) (SO = shipper's order number) (CE = census exemption number)	128	ID	2/3
N902	Reference Identification	127	AN	1/30

SE Segment: Transaction Set Trailer

SE*25*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.

D/K	SPLC	Station Abbr. 333	St/Pr	Full Station Name
	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	