Union Pacific Rules

System Special Instructions

Effective April 1, 2020
Includes Updates as of October 5, 2020
PB-27015

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UNION PACIFIC RAILROAD

SYSTEM SPECIAL INSTRUCTIONS

Effective 0900 CDT Wednesday, April 01, 2020

V. J. Vena – Chief Operating Officer
T. A. Lischer, Executive Vice President – Operations
S. K. Keller, Senior Vice President – Northern Region
D. M. Giandinoto, Senior Vice President – Southern Region
H. Cary IV, Vice President – HDC & Network Operations
E. J. Gehringer, Vice President – Mechanical & Engineering
E. N. Batt, Assistant Vice President – Safety & Chief Safety Officer

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This document supersedes:
Union Pacific Railroad
System Special Instructions
Effective May 10, 2019

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April 1, 2020

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SHL: Safety Hot Lines

SHL: Safety Hot Lines

NORTHERN REGION S. K. Keller, Senior Vice President – Northern Region Russell Rohlfs, Assistant Vice President – Track Maintenance Tara Hogan, General Superintendent – HDC Brenten Starr, General Superintendent – HDC			
Service Unit	**Safety Hot Line**	**General Manager**	**Headquarters**
Commuter Ops	See Local Instructions	Benita Gibson	Chicago, IL
Great Lakes	See Local Instructions	Ricky Wells	Council Bluffs, IA
Chicago Complex	See Local Instructions	Andrey Drozdov	Northlake, IL
Great Plains	See Local Instructions	Mike Santa Maria	North Platte, NE
Northern California	800-992-0945	Matthew Hall	Roseville, CA
Pacific Northwest	503-249-2539	Cliff Bowman	Portland, OR
Rocky Mountain	800-992-0945	Kurt Zalar	Salt Lake City, UT
SOUTHERN REGION D. M. Giandinoto, Senior Vice President – Southern Region Mark Wheeland, Assistant Vice President – Track Maintenance Tami Johnsen, General Superintendent – HDC Jason Jones, General Superintendent – HDC			
Service Unit	**Safety Hot Line**	**General Manager**	**Headquarters**
Gulf Coast	8-211-0891	Brian Gorton	Spring, TX
Houston Complex	8-211-0891	Brian McGavock	Houston, TX
Heartland	See Local Instructions	Jay Everett	Kansas City, MO
Mid - America	See Local Instructions	Steven Bybee	N. Little Rock, AR
South Texas	See Local Instructions	Robert Ellis Jr.	San Antonio, TX
Sunset	800-269-2060	Neil Scott	Tucson, AZ
Los Angeles Complex	800-269-2060	Carl Garrison	Bloomington, CA

Texoma	See Local Instructions	Daniel Torres	Ft. Worth, TX

Operating Practices

David O'Hara, Gen. Director – Operating Practices - Ph - 402-[redacted]
David Robbins, Gen. Director – Safety and Analysis - Ph - 402[redacted]
Randy Eardensohn, Sr. Director – Safety & Operating Practices - Ph[redacted]
Kevin Andersen, Sr. Director – Safety Field Operations - Ph 40[redacted]
Jason Taullie, Director – Operating Practices & Rules - Ph 402[redacted]
Keith Jensen, Sr. Manager – Train Handling Improvement - Ph 8[redacted]
Taylor Weisbeck, Director – Systems Quality Assurance Testing - P[redacted]

Rules Manager	Phone Number	Timetable Area
Ricky Carver	402[redacted]	Dallas / Ft. Worth; Houston; Livonia; North Little Rock; Salina; San Antonio.
Robbie Goldman	801[redacted]	Chicago; Council Bluffs; Denver; Iowa; Kansas City; North Platte; St. Louis; Twin Cities.
Rob Hunter	909-[redacted]	Los Angeles; Portland; Roseville; Sunset; Salt Lake City.

For emergencies call RMCC: 1- 888 UPRR COP or 1-888-877-7267
Harriman or Spring Dispatching Centers: Safety Hot Line Numbers:[redacted]

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INTRO: Introduction to Special Instructions

INTRO: Introduction to Special Instructions

The General Code of Operating Rules, Air Brake and Train Handling Rules, and Safety Rules apply system wide unless modified by System Special Instructions. Timetable subdivision special instructions apply on the subdivision listed.

Observe all slower speed restrictions. Examples include subdivision speed restrictions, mandatory directives, train consist speed restrictions, tons per operative brake restrictions, locomotive maximum speed, etc.

When operating on any foreign railroad:

- Comply with all restrictions listed in UPRR System Special Instructions Item 14.
- Comply with the foreign railroad's requirements that are more restrictive.

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ITEM 1: Time Comparison

Item 1: Time Comparison

Obtain Coordinated Universal Time (Greenwich Time) by calling:

- 8-544-4601
  or
- 8-976-1111

Use the following table to convert from Coordinated Universal Time:

FROM THE SECOND SUNDAY IN MARCH UNTIL THE FIRST SUNDAY IN NOVEMBER, CONVERT TO:	BY SUBTRACTING:	FROM THE FIRST SUNDAY IN NOVEMBER UNTIL THE SECOND SUNDAY IN MARCH, CONVERT TO:	BY SUBTRACTING:
Central Daylight Saving Time	5 hours	Central Standard Time	6 hours
Mountain Daylight Saving Time	6 hours	Mountain Standard Time	7 hours
Pacific Daylight Saving Time	7 hours	Pacific Standard Time	8 hours

Rule Updated Date

May 2, 2016

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ITEM 2: Speed Restrictions

Item 2-A: Maximum Speeds: General

Part	Description	MPH
1	Key Trains (including trains with one or more PIH/TIH cars) Key Trains - Crude Oil / Key Trains - High Hazard Flammable Train (Operating within a High Threat Urban Area)	50 40
2	Moving against the current of traffic:	
	• Passenger trains	59
	• All other trains	49
3	Through dual control switch turnouts not connected to a siding	30
4	Through other turnouts not connected to a siding	15
5	Sidings:	
	• Sidings identified with a "**!**" symbol and connected turnouts: not to exceed permanent main track speed at that location	30
	• Other sidings and connected turnouts: not to exceed permanent main track speed at that location	20
6	Tracks other than main tracks and sidings	10
7	Balloon tracks & wye tracks, except those portions used as a main track or siding	5
8	Live rails of track scales	5
9	Designated locomotive servicing facilities and car repair facilities	5
10	Engines with cars	70
	• GE AC Locomotives	75
	• Engines UP 844, 949, 951, B963, 3985, 4014, 6936, Amtrak, and other passenger engines	82
	• SW-1500	50
11	A multiple-unit engine controlled from other than the leading unit	30
12	Engines running light	70

	• More than eight locomotives	45
	• When speed cannot be controlled using dynamic brake	45
	• When speed cannot be controlled using dynamic brake on descending grade over 1 %	25
13	Military trains:	
	• Loaded	50
	• Empty	60
	Exception: Military train that exceeds 60 cars (Does not Apply to military trains consisting entirely of intermodal equipment.)	45
14	Movements over piston type (Dowty) retarders	6

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Item 2-B: Maximum Speeds: Cars

A. Use the train consist to identify the maximum train speed. It shows the maximum speed for each car and the maximum train speed, which is the lowest maximum speed of any car entrained. If a car that restricts the maximum train consist speed is set out at an unscheduled location, operate at the lowest maximum speed of cars left in the train.

B. The maximum speed for cars is shown on the train consist. When train consist is not available:

- The maximum speed is 60 MPH, unless the table in Item 2-B shows a different speed.
  or
- If the equipment is 100% passenger car equipment, the train may operate at maximum passenger speed, unless otherwise restricted.

C. Use the speeds listed in the table as a backup summary:

- When a train consist is not available.
- When a pickup is made enroute without car speed information.
  or
- For foreign railroads operating on UPRR.

D. Refer to Item 2-C for MW and Mechanical equipment speeds.

Maximum Speeds Cars		
Part	**Description**	**MPH**
1	Loaded ordinary flat cars	50
	Exceptions:	

	(a) Flat cars loaded with auto frames; flat cars UP 904150-904167 loaded with locomotive traction motors	60
	(b) Cars in series TBCX 7471-7481, TBCX 76700-76707, and specially equipped flat cars carrying airplane and rocket equipment	70
2	Bulkhead flat cars:	
	• Loaded	50
	• Empty cars equipped with constant contact side bearings	50
	• Empty	40
3	Centerbeam flat cars:	
	• Loaded with plywood or lumber	60
	• Loaded with other commodities	50
	• Empty	50
4	Anode flat cars:	
	• Loaded	50
	• Empty cars equipped with constant contact side bearings	50
	• Empty	40
5	Heavy-Duty Flat Cars, 8 axles or more:	
	8 to 14 axles:	
	• Loaded or empty	45
	16 to 24 axles:	
	• Loaded	25
	• Empty	45
	36 axles:	
	• Loaded	15
	• Empty	25
6	TOFC or COFC flat cars or other intermodal equipment:	
	• Loaded	70
	• Empty	60
	Exceptions:	
	(a) Loaded multi-platform/unit/well cars	75
	(b) Empty well cars and empty articulated spine cars for carrying trailers and/or containers	70
	(c) Intermodal flat cars made from box cars in series SP 520583-520727, CP 520350-520386 and empty NS 157000-157849	50
	(d) Loaded intermodal flat cars made from box cars in series NS 157000-157849	60
	(e) Flat cars in series DRGW 4015-4071, DRGW 21502-21547, DRGW 21700-21759, SP 513153-515761, SP 518013-518180, SP 599702-599888, SSW 84894, and SSW 85401-85492:	

	• Loaded	50
	• Empty	45
7	Open-top hopper cars:	
	• Loaded	60
	• Loaded with coal	50
	• Empty	50
	• Loaded cars in series CTRN 601001 – 601600 and 602001 - 602920 unless train consist indicates a higher speed	40
	Exception:	
	Empty cars having constant contact side bearings or center plate extension pads	60
8	Gondola cars	50
	Exceptions:	
	(a) Empty car in series EJE 4000-4549, EJE 4800-4874, CR 607000-607480, UP 66800-67649, SP 337700-338099, MRL 38000-38071 and MRL 80511-81332 except if equipped with constant contact side bearings	40
	(b) Loaded cars in series UP 903084-903094; cars with initials UP, WP, MP or GONX loaded with aluminum ingots and empty gondolas having constant contact side bearings or center plate extension pads	60
	(c) Covered coil gondolas equipped with constant contact side bearings	70
9	Gondola or open-top hopper cars used to haul ore	50
10	Covered hopper cars in car series TGSX 443401-443700 and CGAX 9001-9505	50
11	Tank cars:	
	• Loaded	60
	• Empty	50
	Exception:	
	Loaded 4-axle tank cars with 125 ton trucks designed for maximum gross weight of 315,000 lbs	50
12	Multilevels	70
13	Mechanical reefers	70
14	Cabooses	70
15	Business cars and AMTK 70000 and AMTK 71000 series	79
16	Cars in ANSX series 800420-800421, 800425-800427, 800430-800433, and 800440-800444	50
17	Roadrailer ™ cars	70

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Item 2-C: Maximum Speeds: Maintenance of Way and Mechanical Equipment

The maximum speed for cars is 60 MPH unless the train consist shows a different speed. Use the speeds listed below as a backup summary when a train consist is not available.

Maintenance of Way and Mechanical Equipment		
Part	**Description**	**MPH**
1	Continuous welded or jointed rail trains:	
	• Loaded	40
	• Empty	50
	Loram rail train (loaded or empty)	50
2	Cars in series RGAX 25000-25049	40
3	MPX cars (excluding outfit cars and locomotive cranes), loaded or empty air dump cars, SPMW 7721-7799, RGAX 3900-3923, SPMW 4111-4147, 5101-5121, 5128-5191, 5202, 5218-5291, 5835, 6401-6438, and SSW 94500-94520	35
	Exception: Series Series MPX 27028-27060, 30000-30014 and 50001-50014	50
4	Outfit cars	40
	Exception: After mechanical department approval following inspection of cars	50
5	Four-axle scale test cars	50
	Two-axle scale test cars	30
6	Snow plows, or locomotive cranes on their own wheels; foreign line or privately-owned derricks, cranes, or other similar equipment on their own wheels on revenue billing (unless further restricted on waybill or train consist); or company-owned cranes loaded on flat cars	30
	Exception: Cranes moved on flat cars in series MP 17000-17057 and MP 50064	50
7	Self-propelled cranes, pile drivers, and similar equipment moving under their own power or TRT 909	30
8	Hy-rail equipped Holmes, Pettibone, and similar type cranes, and wheel changers	25
9	Gondola or open top hoppers used to carry ballast	50
	Exception: Loaded UP 901710-901830, UP 919000-920216 & HZGX 7000-7700	60
10	Jordan spreaders (in all plowing operations with a MW Supervisor present):	
	• In snow plowing operations or traveling in either direction with wings retracted and locked	45
	• In snow plowing operations with wings extended	35
	• In other plowing operations	25
	• With one wing extended	15
	When moving in reverse direction, wings should be fully retracted. When there is no MW Supervisor present, be governed by Item 3.3 Jordan Spreader (entrained) rules.	

11	Engines handling ITW (in-track welder) work equipment, Loram rail train or TRT 909	50
12	Wrecking derrick consists are assigned to locations shown below. When operating derrick consists, the equipment having the lowest authorized speed restricts the maximum authorized speed for that consist.	
Assigned Location	**Consist Contains Equipment:**	**MPH**
Ogden	UP 905275, 905280, 908455	50
Green River	UP 903047, 909317, 906209, 904206, 904703	60
	UP 905269, 905273, 905274	50
Denver	RGAX 030, 3330	35
Hinkle	UP 903050, 909351, 906203, 904294, 904295, 909355	60
Salt Lake	UP 903046, 904200, 904239, 906200, 906208, 909307, 909308	60
Stockton	UP 909313, 904301	60
	WPMW 796, 797	50
	UP 900310, TPX 14181	40
Portola	UP 903045, 904232, 904300, 909320	60
	WPMW 376, 378	50
North Little Rock	MP 15427, 3646, 15082, 517, 2909, 4324, MPX 251	60
	MP 2155, 3160, 15090	50
Roseville	SPMW 7113, 7184, 7185, 7071, 7055	45
	SPMW 7072, 7077, 7078	35

Rule Updated Date

May 10, 2019

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Item 2-D: Maximum Speeds: Hot Weather

During periods of extreme heat, conditions exist that could affect track structure. When advised by track bulletin that a Level 1 or 2 Heat Restriction is in effect, restrict train speed within the limits of the track bulletin as shown in the tables below.

Each platform/unit/well of an intermodal car is to be considered one car when calculating tons per car.

When operating with an Energy Management System, allow the system to operate as designed. When operating with a single

distributed power consist, located at the rear of the train, operate in synchronous mode or in independent mode with distributed power 1-3 throttle notches below the lead consist in power and 1-3 throttle positions above the lead consist in dynamic brake, except when cresting a grade. Comply with specific train handling procedures when required by local instructions.

Maximum Speeds: Hot Weather	
Level 1 Heat Restriction:	**Restriction MPH:**
Passenger trains, light engines, and freight trains averaging less than 90 tons per car/platform/unit/well.	No Additional Restrictions
Freight trains averaging 90 tons or more per car/platform/unit/well in signaled territory.	50

Level 2 Heat Restriction:	**Restriction**:
Chicago - All Metra trains. California - Metrolink, Pacific Surfliner, Capitol Corridor, Altamont Commuter Express(ACE), Caltrain and San Joaquin trains.	No Additional Restrictions
Passenger trains (except commuter trains listed above), light engines, and freight trains averaging less than 90 tons per car/platform/unit/well.	50
Freight trains averaging 90 tons or more per car/platform/unit/well.	40
Exceptions: When an exception to Item 2-D is shown on the subdivision page, the above restrictions do not apply to freight trains and the appropriate exception listed below applies instead.	
Exception 1: All freight trains operating on the subdivision while heat restriction bulletin is in effect	30
Exception 2: All freight trains operating on the subdivision while heat restriction bulletin is in effect	Restricted speed, not exceeding 10 MPH

Rule Updated Date

August 26, 2020

General Order

Effective Date: August 26, 2020

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Item 2-E: Maximum Speeds: Cold Weather

During periods of extreme cold, conditions exist that could affect track structure. When advised by track bulletin that a Cold Weather Restriction is in effect, restrict train speed within the limits of the track bulletin as shown in the table below.

Each platform/unit/well of an intermodal car is to be considered one car when calculating tons per car.

When operating with an Energy Management System, allow the system to operate as designed.

Maximum Speeds: Cold Weather		
Cold Weather Restrictions	**Restriction MPH**	
	Signaled Track	**Non-Signaled Track**
All Passenger trains, light engines, and freight trains averaging less than 90 tons per car/platform/unit/well.	No Restrictions	40
Freight trains averaging 90 tons or more per car/platform/unit/well.	40	40

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Item 2-F: Maximum Speeds: Tons Per Operative Brake (TPOB)

Freight trains must not exceed the speed specified in the tables below. If a subdivision special instruction specifies a higher or lower TPOB speed, be governed by that speed.

When using the following tables, round your train's TPOB up to the next whole number. For example, 100.1 TPOB becomes 101 TPOB.

The TPOB as shown on the train graph will be used to determine the maximum speed of the train. If the train graph for TPOB is unavailable, or train consist is changed enroute and a new train graph is not provided, the TPOB of the train will be computed by dividing the train's tonnage by the total number of operative brakes in the train. There is 1 brake per conventional car (See **Table C** for other car types).

Table A applies to single well and/or multi-platform/unit/well trains with less than 5 conventional cars (do not count single unit well cars as conventional cars). **

Table B applies to all other freight trains.

Table C is used to determine the equivalent number of operative brakes for multi-platform/unit/well cars and for cars that are solid drawbar connected.

The following abbreviations are used in **Table A** and **Table B**:
MSS: Maximum Subdivision Speed NR: No Restriction

Table A –Single Well and/or Multi-Platform/Unit/Well Trains with Less Than 5 Other Conventional Cars **	
T P O B	**Total number of platforms/units/wells & other cars**

	80 or less	81 to 110	111 to 140	141 or more
120 or less	NR	NR	NR	MSS minus 10 MPH
121 to 126	NR	NR	MSS minus 10 MPH	MSS minus 10 MPH
127 to 132	NR	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH
133 or more	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH

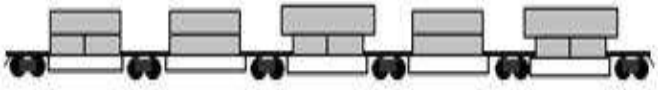
** Does not apply to trains operating with engaged PTC system.

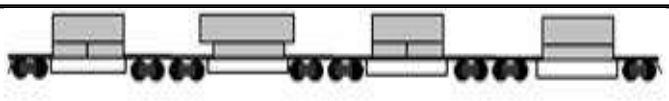
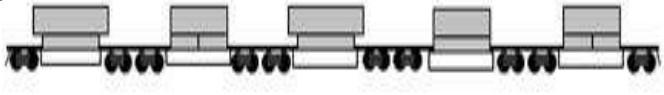
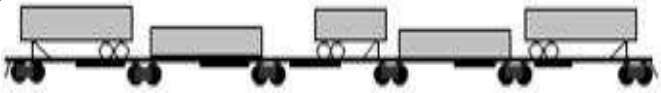
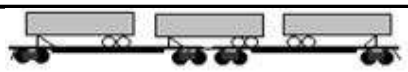
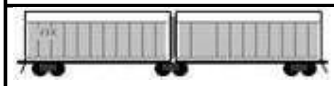
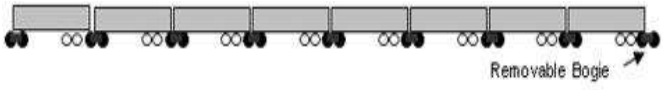
Table B – All Other Freight Trains Including Single Well and/or Multi-Platform/Unit/Well Trains with 5 or More Other Conventional Cars

T P O B	Maximum Speed	T P O B	Maximum Speed
100 or less	NR	111 to 120	MSS minus 10 MPH
101 to 110	MSS minus 5 MPH	Over 120	50 MPH

Note: Tables do not restrict train speed to below 50 MPH.

Use **Table C** to determine the equivalent number of operative brakes for multi-platform/unit/well cars and for cars that are solid drawbar or articulated connected and for other cars that are shown in the table .

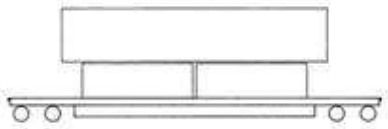
Table C - Equivalent Number of Operative Brakes		
	Type of Equipment (Car Code)	**Number of Operative Brakes**
1.	**Well cars** (Permanently connected solid drawbar or articulated equipment)	
	A.  Equipped with five wells: (A, E, D, C and B) (Articulated Equipment) (P5A)	3 brakes
	B.  Equipped with three wells (A, C and B) (3 Unit Articulated) (P3A)	2 brakes
	C.  Equipped with three units (A, C and B) solid drawbar connected (P3A)	3 brakes
		4 brakes

	D.  Equipped with four units(A, D, C and B) solid drawbar connected. (P4A)	
	E.  Equipped with five units (A, E, D, C and B) solid drawbar connected. (P5A)	5 brakes
2.	**Spine Cars** (Permanently connected multi-platform articulated equipment)	
	A.  Three platform articulated spine cars (P3 *)	2 brakes
	B.  Five platform articulated spine cars (P5 *) (* is a number)	3 brakes
3.	**TOFC and COFC flat cars** (Two-unit solid-drawbar connected long car)	
	A.  Two cars with solid-drawbar (P2 *) (* is a letter or number)	2 brakes
4.	**Cars for automobiles** (Permanently connected articulated equipment)	
	 Two unit articulated in series BTTX 880000-880419 and Automax (M* l or M* 3) (* is number of decks)	2 brakes
5.	**Superhopper car (C7T)**	3 brakes
6.	**Roadrailer™ cars** 	½ brake per van

The train consist shows each well (1A-E above) as a single car. The train consist shows other cars listed above (2 or 3) as one car. (See examples). When applying Item 2-D (Maximum Speed: Hot Weather) or Item 6 (Maximum Gross Weight Limitations) to calculate tons per platform/unit/well, use the total number of platforms/units/wells shown for cars listed in the above table. If it becomes necessary to cut the air brakes out on a car (control valve), count as 1 brake per Rules 30.2.2 & 32.7.4.

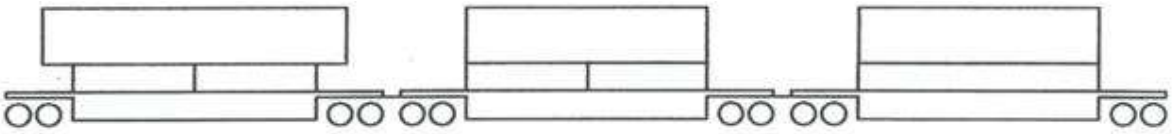
Examples of Train Consist:

Intermodal Car - Single Unit Well Car
(Considered a conventional car only for train makeup purposes)



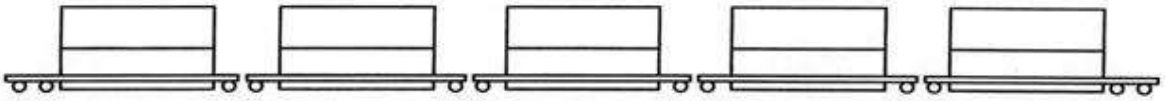
34	DTTX	54000 LP1A	TOFC NZ020	05-801-96 RAMP	GLO2 IL UNION PAC
		70-MPH 80-TONS	70-FT 1-P	1.00-BRK 2273-ATONS 2283-AFT	
		SINGLE UNIT WELL CAR			
		NH DO NOT HUMP			
		DO NOT HUMP			
	NOSU	246829 LK10	MIXFRT NZ020		GLO2 IL APL LAN TRA
	TRLU	211890 LK10	MIXFRT NZ020		CPRS MINNEAPOLMN APL LAN TRA
	APHU	455705 LK50	MIXFRT NZ020		GLO2 IL APL LAN TRA

Intermodal Cars - Train Consist
Solid Drawbar Connected or Articulated Multi-Well Car



DTTX	427102	P3A SOLID DRAWBAR CONNECTED MULTI-WELL CAR			
		CONSISTS OF THE FOLLOWING 3 CARS			
1	DTTA	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF CA UNION PAC
		70-MPH 78-TONS	72-FT 1-P	3.00-BRK 78-ATONS 72-AFT	
		NH DO NOT HUMP			
		DO NOT HUMP			
	HLXU	511982 LK4E	MIXFRT JP017		ICTF CA HAPAG LLO AM
	HLXU	447026 LK40	MIXFRT JP017		ICTF CA HAPAG LLO AM
2	DTTC	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF CA UNION PAC
		70-MPH 79-TONS	72-FT 1-P	0.00-BRK 157-ATONS 144-AFT	
		NH DO NOT HUMP			
		DO NOT HUMP			
	UESU	483829 LK50	MIXFRT JP017		ICTF CA HUB GROUP
	TRLU	402070 LK40	MIXFRT JP017		ICTF CA PACER GLO LO
3	DTTB	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF CA UNION PAC
		70-MPH 80-TONS	72-FT 1-P	0.00-BRK 237-ATONS 216-AFT	
		NH DO NOT HUMP			
		DO NOT HUMP			
	MOAU	705 LK1E	MIXFRT JP017		ICTF CA MITSUI OSK L
	FSCU	756099 LK40	MIXFRT JP017		ICTF CA HAPAG LLO AM
	MOFU	55161 LK40	MIXFRT JP017		ICTF CA MITSUI OSK L

Intermodal Cars - Train Consist
Articulated Multi-Well Car



DTTX 75292 LP5A ARTICULATED MULTI-WELL CAR

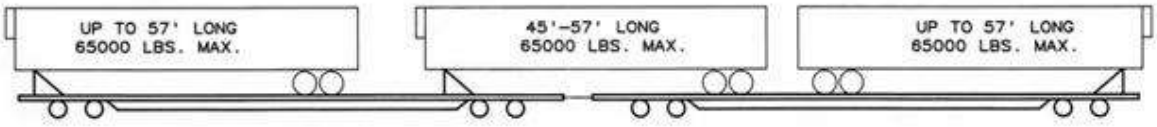
CONSISTS OF FOLLOWING 5 CARS

8	DTTA	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 61-TONS	62-FT 1-P	0.0-BRK 832-ATONS 1136-AFT		
		DO NOT HUMP				
	CSXU	683386 LK60	MIXFRT XG077		MARION	AR CSX INTERMOD
	EMHU	230112 LK70	MIXFRT XG077		MARION	AR LANDST LOGIS
9	DTTE	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 62-TONS	62-FT 1-P	0.0-BRK 894-ATONS 1198-AFT		
		DO NOT HUMP				
	EMPU	289223 LK60	MIXFRT XG077		MARION	AR CLARKE LOGIS
	STXU	240104 LK70	MIXFRT XG077		MARION	AR PROFES TRANS
10	DTTD	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 59-TONS	62-FT 1-P	0.0-BRK 953-ATONS 1260-AFT		
		DO NOT HUMP				
	APLU	492709 LK60	MIXFRT XG077		MARION	AR SHARP FRE SY
	EMHU	230602 LK70	MIXFRT XG077		MARION	AR LANDST LOGIS
11	DTTC	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 76-TONS	62-FT 1-P	0.0-BRK 1029-ATONS 1322-AFT		
		DO NOT HUMP				
	EMPU	681487 LK60	MIXFRT XG077		MARION	AR SCHNEI NAT O
	STXU	238934 LK70	MIXFRT XG077		MARION	AR SHARP FRE SY
12	DTTB	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 67-TONS	62-FT 1-P	0.0-BRK 1096-ATONS 1384-AFT		
		DO NOT HUMP				
	APLU	492264 LK60	MIXFRT XG077		MARION	AR SHARP FRE SY
	CSXU	934228 LK70	DRYGDS XG077		MARION	AR CSX INTERMOD

Intermodal Cars - Train Consist
Multi-Platform Spine Car

1	TTAX	553048 LP52	TOFC AX482	02-801-96 RAMP	PTLAREDO	TX UNION PAC
		70-MPH 218-TONS	291-FT 5-P	2.00-BRK 218-ATONS 291-AFT		
		MULTI-PLATFORM SPINE CAR				
		DO NOT HUMP				
	NONZ	57098 LV77	MIXFRT AX482		LAREDO	TX SWIFT INTERM
	EMHU	231127 LK70	CLNRS AX482		LAREDO	TX ALLIAN SHIPP
	NONZ	541025 LV66	MIXFRT AX482		LAREDO	TX SWIFT INTERM
	SNLZ	400592 LV77	CEREAL AX482		LAREDO	TX SCHNEI NAT C

Two-Unit Solid Drawbar Connected Long Car



17	TTEX	353221 LP28	TOFC RV185	01-800-96 RAMP	SPARKS	NV UNION PAC
		70-MPH 162-TONS	186-FT 2-P	2.00-BRK 1723-ATONS 2533-AFT		
		TWO-UNIT SOLID DRAWBAR CONNECTED LONG CAR				
		CC NO COUPLE TO 39FT. CAR				
		DO NOT HUMP				
	SNLZ	441782 LV77	MIXFRT RV185		SPARKS	NV SCHNEI NATIO
	SNLZ	450448 LV77	MIXFRT RV185		SPARKS	NV SCHNEI NATIO
	SNLZ	508399 LV78	AUTOPT RV185		SPARKS	NV SCHNEI NATIO

Rule Updated Date

October 23, 2019

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ITEM 3: Trains Handling - Company Equipment

Item 3: Trains Handling Company Equipment

1. Rail Trains

A. Requirements for Movement of Rail Trains and Rail Train Equipment

Equipment for handling continuous-welded rail (CWR), or continuous lengths of bolted rail, consists of permanently-coupled flat cars. Cars are locked together with pins, and built with slack resistors and do not have any slack compared to a typical freight car. Good train handling techniques must be used to minimize in-train forces as Rail Train couplers are blocked against slack and are highly susceptible to damage from rough handling.

1. Rail Train and Rail Train Equipment **MUST NOT** be cut off in motion or struck by any car moving under its own momentum.
2. When combined with other M/W Equipment:
    - An empty rail train must be placed on the rear of a train.
    - A loaded rail train must be placed at the head end of the train.
3. Empty Rail Trains on Manifest Trains
    - Empty Rail Trains are to be placed on the rear of Manifest Trains.
    - When combining empty rail trains, no more than two (2) may be placed on the rear of a manifest train.
4. Loaded Rail Trains
    - Must be moved as a unit train and are not to be moved in manifest service.
    - No more than one (1) loaded rail train in consist.

Loaded Loram Rail Trains (LR1-50, LR2-50, LR3-50)

When operating either Loaded or Empty Loram Trains, do not handle on any territory with curvature exceeding 16 degrees.

B. Work Train Power Requirements for Unloading and Loading Rail Trains

1. Must have two operative locomotives placed back to back regardless of subdivision or Tons Per Axle (TPA) requirements.
2. TPA and fuel conservation requirements apply while en route.
   Exceptions:
    - When unloading and loading Rail Trains on subdivisions identified with territory code "L" or "H", the train must have three operative locomotives.
    - During loading/unloading operations, additional locomotive(s) may be placed on line regardless of TPA requirements.

Note: The assigned M/W supervisor must accompany rail trains during loading and unloading operations. M/W supervisor is not required to accompany rail train movements to/from an unloading/loading site. When accompanied by a M/W supervisor, the train crew must be alert for any signal or instruction from the M/W supervisor. Before releasing a loaded rail train, the M/W supervisor must ensure all rails are properly secured and buffer cars are in place.

C. Buffer Cars

When rail train equipment is loaded with rail, a buffer car is used at each end. The buffer car must not be a car containing hazardous materials or an occupied caboose or camp car. The ends of the buffer car must be at least as tall as the top row of rail to restrain the rail. The "B" end of the buffer car must not be next to the equipment loaded with rail. However, the M/W supervisor may authorize loaded equipment to be operated without a buffer to/from an unloading/loading site.

Exceptions: Contract Trains with bulkhead doors on each end to restrain rail do not require buffer cars, (LR1-50, LR2-50, LR3-50).

D. Bad-ordered and/or Separated Rail Train Equipment

If any rail train or support equipment is bad-ordered and/or separated from their mated car/s, the remainder of the rail train or support equipment **MUST** stay (as a unit) at that location until the repair is complete. Bad order rail train equipment must be reported to MWOC as soon as possible via email, MWOC-BO-RAIL@UP.com. Email notification should include car ID, station where car is located and contact information for responsible repair party.

E. Rail Train Equipment:

Rail Train	Trace Car
C-50	UP913718
D-50	UP913732
E-50	UP913491
F-50	MP6852
G-50	UP913672
H-40	SPMW9013
I-40	SPMW9052
J-40	SPMW9028
L-40	UP904534
M-54	UP904596
N-40	UP913523
P-40	UP904697
Q-40	RGAX4650
R-40	RGAX4688
S-40	SSW97003
T-40	SPMW5396
U-48	SPMW6678
W-50	UP904735

Rail Unloaders (2 cars per set)
UP913524 / UP913525
UP913526 / UP913527
UP913528 / UP913529
UP913530 / UP913531
MP6859 / MP6861
RGAX4691 / RGAX4693
SPMW6681 / SPMW6682
SPMW6683 / SPMW6684
SPMW6685 / SPMW6686
UP913532 / UP913533
UP913534 / UP913535
UP913536 / UP913537

Rail Pickup Units (6 cars per set)
SPMW5401 / SPMW5397 / SPMW5403 / SPMW5398 / SPMW5399 / MP7510

Rail Pickup Units (8 cars per set)
MP6864 / MP6865 / MP6866 / MP6867 / MP6868 / MP7511 / MP7513 / UP904554

2. Wrecking Derricks, Locomotive Cranes and Similar Equipment

Secure booms on wrecking derricks, locomotive cranes and similar equipment. Booms must be trailing or detached unless they are in work train service. A mechanical employee will accompany the wrecking derrick. A crane operator will accompany locomotive cranes and must ride either:

- In the crane.
- On the train that has the crane entrained.
  or
- In a nearby vehicle having radio communications.

Inspect cranes at the following locations:

- Before leaving the initial terminal.
- Within 50 miles of the initial terminal.
- Within each 100 miles afterward.

During the inspection, ensure:

- Crane is headed in the right direction.
- Boom is properly secured.

- Equipment is being handled at the proper speed.

Booms must be disconnected on cranes, unless boom rest car specifically designed to enable the crane to move with the boom attached accompanies the crane. However, if the boom cannot be disconnected and cannot be in the trailing position, the train may be moved only as follows:

- Train management or an operating manager must authorize the movement.
- A crane operator must accompany the crane.
- Speed must not exceed:
  -- 15 MPH if the crane operator is not riding the crane.
  -- 30 MPH if the crane operator is riding the crane.
- Movement may only be made to the first location where it can be turned.

Placement in train:

- Place derricks and cranes within 10 cars of the engine and not ahead of more than 8000 tons.
- Place wrecking derrick consists as close to the rear of the train as possible and not ahead of more than 4000 tons.

The above restrictions do not apply to cranes loaded on flat cars, series MP 17000-17057, and MP 50064. These cranes may operate at 50 MPH. They may also operate with the boom in the non-trailing position, if properly secured.

3. Jordan Spreaders (entrained)

Head Jordan Spreaders in the direction the train is moving, unless in work trains. Inspect equipment carefully before moving, and frequently en-route. When entrained:

- Operate with wings always retracted, locked and secured with chain or cable.
- Maximum speeds:
  –-35 MPH forward.
  –-15 MPH reverse.*
- Only move in reverse direction to the first location machine can be turned.*
- Must be handled on the rear of train.*

***Exception:** Upon instructions from the MW supervisor, Jordan Spreaders entrained in work trains may be moved in reverse, to the designated location, at the speed authorized by the MW supervisor.

4. Snow Plows

Handle one-way (multiple track) and wedge (single track) snow plows as follows:

- When deadheading the plow and snow is not above the top of the rail locate the plow in trailing position on the rear of freight trains.
- When deadheading the plow and snow is above the top of the rail, locate the plow in leading position immediately ahead of the lead locomotive.
- When plowing snow, locate the plow in leading position immediately ahead of the lead locomotive. Do not pull a train when plowing snow.
- Do not operate snow plows through drifts when trains are approaching or passing on an adjacent track.

- Raise flangers when passing over bridges, highway crossings, railroad crossings, track car set-offs, high guardrails, frogs, and switches, and when passing through interlocking limits.
- Handle rotary snow plows in special trains or on the rear of freight trains with rotary blades in the trailing position.
- In switching movements, handle a snow plow alone or with only one car.

5. Two-axle Scale Test Cars

Handle two-axle scale test cars in a train immediately ahead of the rear car. Scale test cars must not be placed next to any loaded car containing hazardous materials. Handle two-axle scale test cars in separate trains if moving more than one.

6. Passenger, Business, and Outfit Cars

Train management may specifically instruct handling passenger, business and outfit cars differently than listed below. Do not handle passenger, business, or outfit cars while switching. In freight trains, handle:

- Outfit cars on the head end.
- Passenger and business cars on the rear end.

When handling passenger or business cars on the rear end of a freight train, comply with the following:

- Limit bulk commodity unit trains and trains consisting entirely of multi-platform/unit/well cars to a maximum of three passenger and/or business cars.
- Limit all other trains to a maximum of two passenger and/or business cars. In addition, trains must not:
  - Contain more than 20 multilevel cars.
  - Exceed 6000 feet (including locomotives and passenger and/or business cars).

If train management authorizes handling passenger or business cars on the head end of a freight train, comply with the following:

- A maximum of five of these cars may be entrained.
- When handling two or more of these cars if trailing tonnage behind these cars exceeds 3500 tons, separate these cars from each other by at least two loaded freight cars.
- Handle business cars UPP 106 (Shoshone) UPP 115 (Selma), UPP 203 (Idaho), and UPP 420 (Fox River) only on the rear of freight trains.
- Handle business cars UPP 210, UPP 252, EMDX 820, and EMDX 840 (mobile laboratory cars) at any location in freight trains.

7. Ballast Cars with Air-operated Ballast Gates

The following cars are ballast cars equipped with air-operated gates and an independent ballast air system:

- UP 901660-901830.
- UP 901900-901949.
- UP 901991-901999.
- UP 919000-920311.

Do the following to make the ballast air system inoperative when these cars are loaded and in transit:

- Stop the air supply to the ballast air system.
- Bleed the ballast air system reservoirs by opening an air drain valve on the ballast reservoirs, located on the "A" end of the car.
- Leave the ballast air line angle cocks open.

Before using the ballast air system, close all ballast reservoir drain valves. Charge the system only during short work train moves to an unloading site and during actual ballast unloading.

8. Engines Handling ITW (In-Track Welder)

- Employee in charge may impose more restrictive speed restrictions.
- ITW work equipment is equipped with independent air brakes.
- Employees in charge will occupy ITW and have control of the air brakes and have radio communication with the engineer.
- ITW is towed with a solid hitch and must not be placed in a train or handled with any other equipment.
- ITW is equipped with marker on rear.

9. Unmanned Geometry Measurement System (UGMS) UP910701

- Do not kick or hump.
- Must be the head car in the train.

Rule Updated Date

April 1, 2020

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ITEM 4: Locomotive Information

Item 4: Locomotive Information

To determine Equivalent Powered Axles (EPA) and Equivalent Dynamic Brake Axles (EDBA) for a locomotive consist, use the EPA and EDBA numbers indicated on the train consist. The following table is to be used only when a train consist is not available or when a locomotive consist is changed.

Note: An Equivalent Axle is a locomotive's tractive effort or braking effort compared to one standard axle which has 10,000 lbs. tractive effort or 10,000 lbs. braking effort.

As used in these tables, the following abbreviations apply:
- CTE = Controlled Tractive Effort (limits locomotive to maximum of 110,000 lbs. tractive effort when equipped).
- PA = Powered Axles.
- EPA = Equivalent Powered Axles.
- EDBA = Equivalent Dynamic Brake Axles.
- FTE = Full Tractive Effort.
- TM c/o = Traction motor(s) cut out.
- Truck c/o = Truck cut out.

DC Locomotives					
Model	EPA	EDBA	Model	EPA	EDBA
B23-7	4.5	4.2*	GP40-2	5.0	3.9#
B30-7	5.0	4.2*	GP50	6.5	4.1*
B36-7	5.0	4.2	GP60	8.0	5.4
B39-8; B40-8	7.8	5.2	SD38-2	5.4	5.7*#
C40-8; C40-8W	10.1	7.9	SD40-2; SD40N; SD30Eco	7.1	5.9*#
C41-8; C41-8W	10.1	7.9	SD45	7.0	5.9
C44-9; C44-9W	11.5	7.9	SD50	9.2	6.1
ES40DC	10.1	7.9	SD59MX	7.1	8.1
ES44DC	11.5	7.9	SD60; SD60M	9.9	8.1**
SW1500	3.7	0.0	SD70/SD70M	10.4	8.6
MP15	4.0	0.0	SD75	10.3	8.6
GP9	4.0	3.0*#	DDA40X	10.3	8.0
GP15-1	3.9	0.0	E9	3.5	6.2
GP22; GP22Eco	5.1	0.0	SL1 (Slug)	4.0	0.0

GP38; GP38-2	4.5	4.0*#	S4B (Slug)	4.0	0.0
GP39-2	4.5	3.8	S3-2B (Slug)	4.0	0.0
GP40	4.5	4.0*#	S6-1 (Slug)	5.0	0.0

*May not be equipped with dynamic brakes.

May be equipped with standard range dynamic brakes.

** UP 2100, 2156, 2157, 2159-2168, 2170-2214 have 6.0 EDBA.

Note: Traction motor cut out switches.

- DC locomotive traction motors must not be cut out to meet EPA or EDBA limitations. Traction motors may be cut out only when they are defective. Locomotives may be isolated/shut down to meet EPA or EDBA limitations.
- AC Locomotive traction motors 1, 2 & 3 may be cut out to meet EPA or EDBA limitations, traction motors 4, 5 & 6 may only be cut out when defective.
- A tag must be placed on the lead unit and on the unit having the cut out traction motor stating that the traction motor has been cut out for the purpose of meeting equivalent axle restrictions. This is to ensure subsequent crews are aware that all dynamic brakes on that locomotive are inoperative.

AC Locomotives			
GE Model	**Total # of Traction Motor(s) Cut Out**	**EPA**	**EDBA**
C44AC; C44/60AC; C44ACCCA	None	12.1	9.8
	1	11.0	8.0
	2	8.0	6.0
	3	6.0	5.0
C44AC (CP)	None	12.1	7.8
	1	11.0	7.0
	2	8.0	5.0
	3	6.0	4.0
C6044AC	None	12.1	11.7
	1	11.0	10.0
	2	8.0	6.0
	3	6.0	6.0
C44ACCTE; C45ACCTE; C45AH; C44ACM; ES44AC** & ES44AH** When in a lead consist or in a remote consist operating in the Full Tractive Effort (FTE) mode	None	12.1	9.8
When in a remote consist operating in the Controlled Tractive Effort (CTE)		11.0*	9.8*
	1	11.0	8.0

mode*	2	8.0	6.0
	3	6.0	5.0
CW60AC	None	12.1	11.7
	1	12.0	10.0
	2	11.0	8.0
	3	8.0	6.0
****Foreign line ES44AC and ES44AH locomotives may not be CTE capable.**			
AC Locomotives			
EMD Model	**Truck Cut Out**	**EPA**	**EDBA**
SD70MAC	None	10.4	8.1
	#1	6.0	5.0
SD70ACe; SD70AH	None	12.0	10.5
*Operating in CTE mode.		11.0*	10.5*
	#1	7.0	6.0
	#2	7.0	0.0
SD80MAC	None	13.0	10.0
	#1	7.0	5.0
	#2	7.0	0.0
SD9043AC	None	11.6	9.6
	#1	7.0	5.0
	#2	7.0	0.0
SD9043AC (CP)	None	12.0	9.0
	#1	9.0	5.0
	#2	9.0	0.0
	Total # of Traction Motor(s) Cut Out	**EPA**	**EDBA**
SD70AHT4 (UP 3000 - UP 3099)	None	12.0	10.5
		11.0*	10.5*
	1	12.0	8.8
*Operating in CTE mode.	2	12.0	7.0
	3	9.0	5.2

Note:

On AC locomotives, dynamic brakes and wheel slip protection are still operative with either traction motors or a truck cut out. Therefore, cutting out axles or a truck on AC locomotives to meet equivalent axle limitations is not a non-complying condition.

If unable to determine the model of a locomotive or its EPA and EDBA, type =po in the MyUP search bar and select Go. In the tab that opens, enter the unit initials and number, then select submit.

Dynamic Brakes are designated in the report as follows:

A - AC
E - Extended Range (Flat)
F - Extended Range (Tapered)
N - Not Equipped
S - Standard Range (Flat) = #
T - Standard Range(Tapered) = #
X - Disconnected (No Dynamic Brake)
Z - AC with Dynamic Braking to 0 MPH

A unit in the locomotive consist that is not working or bad ordered will have the values in the EA PW and EA DB columns enclosed in parenthesis, e.g., "(12.1)", or displayed as dashes, "----", and will not be calculated in the locomotive totals.

Rule Updated Date

June 1, 2018

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