

UNION PACIFIC SYSTEM

OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY

First Division

EMPLOYEES' TIME-TABLE



To Take Effect Sunday, June 9, 1929

at 12:01 A. M. "Pacific Time"

For the government and information of employes only, and not intended for the use of the public.
The right is reserved to vary from this time-table at pleasure.

J. P. O'BRIEN,
GENERAL MANAGER.

F. N. FINCH,
GENERAL SUPERINTENDENT.

G. L. WHIPPLE.
GENERAL SUPERINTENDENT TRANSPORTATION.

FIRST DIVISION

A. BUCKLEY,
Superintendent, PORTLAND, OREGON.

J. F. CORBETT,
Assistant Superintendent, PORTLAND, OREGON.

B. A. DANES,
Trainmaster, PORTLAND, OREGON

H. M. TURNER, CHIEF DISPATCHER, Portland, Oregon
 B. B. JOHNSON, NIGHT CHIEF DISPATCHER, " "
 E. M. RINGER, DISPATCHER, " "
 C. E. SHEPPARD, " " "
 W. A. MILNER, " " "
 W. W. SMITH, " " "
 L. L. RUDD, " " "
 P. T. MCCARTHY, " " "
 O. H. NEWMAN, " " "

MILES OF ROAD

FIRST DIVISION	Main Line.....	385.83		
	Branches.....		410.88	
	Total.....			796.71
SECOND DIVISION	Main Line.....	233.26		
	Branches.....		97.84	
	Total.....			331.10
THIRD DIVISION	Main Line.....	183.64		
	Branches.....		740.25	
	Total.....			923.89
	Total, Main Line.....	802.73		
	Total, Branches.....		1248.97	
	Total.....			2051.70

Time per Mile	Miles per Hour
51"	70.6
52"	69.2
53"	67.9
54"	66.6
55"	65.4
56"	64.2
57"	63.1
58"	62
59"	61
1'	60
1' 1"	59
1' 2"	58
1' 3"	57.1
1' 4"	56.2
1' 5"	55.3
1' 6"	54.5
1' 7"	53.7
1' 8"	52.9
1' 9"	52.1
1' 10"	51.4
1' 12"	50
1' 15"	48
1' 20"	45
1' 25"	42.3
1' 30"	40
1' 40"	36
1' 45"	34.3
1' 50"	32.7
2'	30
2' 10"	27.6
2' 15"	26.6
2' 20"	25.7
2' 30"	24
2' 40"	22.5
2' 45"	21.8
2' 50"	21.2
3'	20
3' 9"	19
3' 20"	18
3' 31"	17
3' 45"	16
4'	15
5'	12
6'	10
7' 30"	8
10'	6

CONDENSED TIME-TABLE

WESTWARD

Huntington and Portland

EASTWARD

SECOND CLASS		FIRST CLASS					Distance from Huntington	Time-Tables Nos. 36-71 June 9, 1929	Distance from Portland	FIRST CLASS					SECOND CLASS	
251 Time Freight	255 Time Freight	17 Passenger	11 Passenger	5 Mail	23 Passenger	19 Passenger				20 Passenger	18 Passenger	12 Passenger	6 Passenger	24 Passenger	252 Time Freight	256 Time Freight
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	STATIONS	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		
	5.00AM	8.50PM		6.29PM	2.25PM	2.55AM	HUNTINGTON	11.35PM	6.50AM		10.50AM	2.00PM		11.59AM		
	10.50AM	12.20AM		9.20PM	6.45PM	6.40AM	LA GRANDE	8.00PM	3.20AM		7.25AM	10.40AM		12.30AM		
		3.10AM		11.59PM	10.15PM	9.55AM	PENDLETON	4.50PM	11.59PM		4.25AM	7.10AM				
	6.00PM						RIETH							4.00PM		
1.00PM			2.35AM		1.00AM		UMATILLA			1.50AM	2.40AM	5.20AM		8.00AM		
8.00PM	1.45AM		6.50AM	5.00AM	3.45AM	4.30AM	THE DALLES	12.50PM	8.35PM	11.25PM	11.35PM	1.35AM		1.45AM		
			9.30AM	7.35AM	6.10AM	7.15AM	PORTLAND	9.40AM	6.10PM	9.00PM	9.10PM	11.00PM		8.30PM		
3.00AM	8.15AM						ALBINA							9.30PM		
Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	(389.5)	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		Leave Daily		
(14.00) 14.4	(27.15) 12.7		(12.40) 30.7	(5.00) 36.6	(11.41) 33.3	(16.50) 23.1	Time	(13.55) 27.9	(12.40) 30.7	(4.50) 37.8	(13.40) 29.0	(15.00) 25.9		(11.30) 15.9		
							Average Speed per Hour							(38.29) 10.2		

WESTWARD

Seattle and Portland

EASTWARD

SECOND CLASS		FIRST CLASS						Distance from Seattle	Time-Table No. 71 June 9, 1929	Distance from Portland	FIRST CLASS						SECOND CLASS	
691 Time Freight	43 CM St. P & P Passenger (18)	37 CM St. P & P Passenger (16)	41 CM St. P & P Passenger (15)	1 CM St. P & P Passenger	35 CM St. P & P Passenger (17)	563 Passenger	561 Passenger				562 Passenger	564 Passenger	32 CM St. P & P Passenger (17)	38 CM St. P & P Passenger (15)	34 CM St. P & P Passenger (16)	42 CM St. P & P Passenger (18)	2 CM St. P & P Passenger	692 Time Freight
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	STATIONS	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		
	9.30PM	6.15PM	10.10AM	8.00AM	7.45AM	11.15PM	11.10AM	SEATTLE	5.00PM	6.30AM	7.30AM	10.00AM	6.00PM	8.45PM	9.00PM			
	6.25PM	9.39PM	6.24PM	10.19AM	8.09AM	7.54AM		ARGO			7.21AM	9.51AM	5.51PM	8.36PM	8.51PM	6.45AM		
	8.40PM						12.40AM	TACOMA	3.35PM	5.00AM						5.00AM		
	12.05AM						2.40AM	CENTRALIA	2.00PM	2.20AM						12.30AM		
	7.35AM							ALBINA								7.30PM		
							6.15AM	PORTLAND	11.00AM	11.15PM								
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	(183.2)	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		
(13.10) 13.5	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(7.00) 26.2	(6.00) 30.5	Time	(6.00) 30.5	(7.15) 25.2	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(11.15) 15.9		
								Average Speed per Hour										

WESTWARD

Spokane-Umatilla-Pendleton

EASTWARD

SECOND CLASS		FIRST CLASS					Distance from Spokane	Time-Table No. 37 June 9, 1929	Distance from Pendleton-Umatilla	FIRST CLASS					SECOND CLASS	
251 Time Freight	45 Passenger	75 Passenger	73 Passenger	11 Passenger	77 Passenger	12 Passenger				76 Passenger	74 Passenger	78 Passenger	46 Passenger	252 Time Freight		
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily					
	9.45PM			9.20PM	7.30AM	7.00AM	7.00AM	7.00AM	7.20PM		12.30AM					
			5.45PM				116.1	MOSCOW								
			9.15PM	9.05PM	12.40PM		147.8	RIPARIA		9.15AM						
	2.55AM		9.55PM		11.52PM		103.9	AYER	4.15AM	5.00AM	4.00PM					
	7.45AM	3.45AM	11.59PM		1.25AM		157.2	WALLULA	2.50AM	3.35AM	12.01PM					
	9.15AM		12.45AM		2.35AM		184.5	UMATILLA	1.50AM	2.45AM	10.30AM					
							156.5	STARBUCK								
		5.15AM					204.6	WALLA WALLA								
							251.4	PENDLETON								
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	(251.4)	(251.4)	Leave Daily	Leave Daily	Leave Daily					
(11.30) 16.0	(1.30) 20.7	(3.30) 28.0	(3.20) 26.4	(5.15) 35.1	(9.15) 27.2		Time	(5.10) 35.7	(2.50) 34.6	(3.30) 25.1	(9.35) 26.2	(1.10) 26.7		(14.00) 13.2		
								Average Speed per Hour								

WESTWARD

FOURTH SUBDIVISION

SECOND CLASS

FIRST CLASS

Length of Sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and telephones.

WFTYP
3110 P
3200 P
3200 P
4720 WFYP
650
4900 P
4904 P
5190 P
TP
5001 P
4924 P
6920 WTP
3975 P
4946 WP
3745 P
3217 P
5000 P
3500 P
5165 WP
5000 P
3495 P
6656 YP
752 WP
2750
2625
P
Spur
3678
Spur
WFTOP

	SECOND CLASS		FIRST CLASS						Distance from Huntington
	251	255	19	29	17	11	23	5	
	Time Freight	Time Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Mail	
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
	1.00PM					2.35AM	1.00AM		215.8
	1.12					2.41	1.15		220.0
	1.22					2.45	1.29		223.2
	1.34					2.50	1.35		226.9
	1.54	7.45PM	s 11.40AM		4.45AM	3.00	s 1.45	s 1.25AM	223.9
	2.00	7.52	11.43		4.48	3.03	f 1.48	1.30	225.7
	2.05	7.58	11.47		4.51	3.06	1.53	1.35	227.5
	2.16	8.10	11.52AM		4.56	3.11	2.00	1.40	231.4
	2.37	8.30	12.01PM		5.04	3.18	2.09	1.47	237.2
	2.52	8.45	12.07		5.10	3.23	s 2.16	s 1.52	241.2
	2.57	8.50	12.10		5.12	3.25	2.24	1.54	242.7
	3.13	9.06	12.17		5.18	3.31	2.34	2.00	247.1
	3.30	9.25	s 12.27		s 5.25	s 3.37	s 2.46	s 2.08	251.7
	3.45	9.45	12.32		5.32	3.42	3.00	2.14	255.4
	4.00	10.00	12.40		5.38	3.48	3.08	2.21	259.9
	4.14	10.12	12.46		5.44	3.53	3.14	2.27	263.9
	4.25	10.20	12.50		5.47	3.56	3.18	2.30	266.3
	4.40	10.34	12.58		5.53	4.02	3.24	2.38	270.6
	4.56	10.46	1.04		5.58	4.07	3.30	2.43	274.6
	5.06	10.56	1.08		6.02	4.11	3.34	2.47	277.4
	5.16	11.05	1.13		6.06	4.15	3.38	2.51	280.1
	5.26	11.14	1.18		6.10	4.19	3.42	2.54	282.7
	5.40	11.24	1.25		6.14	4.24	s 3.50	s 2.58	285.6
	5.48	11.30	s 1.30	1.15PM	6.17	4.27	3.55	3.02	287.7
	5.56	11.35	1.33	f 1.18	6.19	4.29	3.57	3.05	289.2
	6.14	11.45	1.39	f 1.24	6.24	4.34	4.03	3.12	293.1
									293.5
	6.18	11.53PM	1.41	1.26	6.26	4.36	4.05	3.15	294.3
									296.0
	6.35	12.05AM	1.46	1.31	6.31	4.40	4.10	3.20	297.8
									300.9
									301.8
	7.00PM	12.30AM	2.00PM	1.45PM	6.45AM	4.55AM	4.25AM	3.35AM	305.3
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	

Time-Table No. 71
June 9, 1929

STATIONS

DN-R	UMATILLA	Cs
	4.2	
	BAILEY	
	3.2	
	IRRIGON	
	3.7	
	JUDSON	
	6.3	
DN-R	MESSNER	Fe
	1.8	
	BOARDMAN	Bd
	1.8	
	PETERS	
	3.9	
	CASTLE	
	5.8	
	BOULDER	
	4.0	
N	HEPPNER JCT.	Wi
	1.5	
	WILLOWS	
	4.4	
	SILICA	
	4.6	
DN	ARLINGTON	Mx
	3.7	
	GILMORE	
	4.5	
	BLALOCK	
	4.0	
	RAMSAY	
	2.4	
N	QUINTON	Qn
	4.3	
	HOOK	
	4.0	
	GOFF	
	2.8	
	DAY	
	2.7	
	RUFUS	
	2.6	
	GRANT	
	2.0	
DN	BIGGS	Bx
	2.1	
D	SHERMAN	Vo
	1.5	
	MILLER	
	3.9	
	CELLO	
	0.4	
	TUMWATER	
	0.8	
	OREGON TRUNK JCT.	
	1.7	
	DILLON	
	1.8	
	DUNE	
	3.1	
	BIG EDDY	
	0.9	
	SEUFERT	
	3.5	
DN-R	THE DALLES	Dk-Wh
	(98.8)	

(6.00) (4.45) (2.20) (0.30) (2.00) (2.20) (3.25) (2.10) Time
16.4 17.1 34.8 35.2 40.7 42.3 28.9 37.6 Average Speed per Hour

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

FOURTH SUBDIVISION

EASTWARD

Time-Table No. 71

June 9, 1929

Distance from
Portland

FIRST CLASS

SECOND CLASS

Block Signals

Block Signals

Double Track

STATIONS		
DN-R	UMATILLA	Cs
	BAILEY	
	IRRIGON	
	JUDSON	
DN-R	MESSNER	Fc
	BOARDMAN	Bd
	PETERS	
	CASTLE	
	BOULDER	
N	HEPPNER JCT.	Wi
	WILLOWS	
	SILICA	
DN	ARLINGTON	Mx
	GILMORE	
	BLALOCK	
	RAMSAY	
N	QUINTON	Qn
	HOOK	
	GOFF	
	DAY	
	RUFUS	
	GRANT	
DN	BIGGS	Bx
D	SHERMAN	Vo
	MILLER	
	CELILO	
	TUMWATER	
	OREGON TRUNK JCT.	
	DILLON	
	DUNE	
	BIG EDDY	
	SEUFERT	
DN-R	THE DALLES	Dk-Wh

Distance from Portland	FIRST CLASS						SECOND CLASS								
	24 Passenger	20 Passenger	30 Passenger	18 Passenger	12 Passenger	6 Passenger	252 Time Freight	256 Time Freight	258 Time Freight						
ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily	ArriveDaily					
183.0	5.05AM				1.40AM	2.30AM									
178.8	4.54				1.33	2.22									
175.6	f 4.45				1.29	2.14									
171.9	4.35				1.24	2.02									
165.6	s 4.20	s 3.00PM		s 10.35PM	1.16	s 1.45									
163.8	f 4.15	2.56		10.31	1.13	1.40									
162.0	4.10	2.53		10.28	1.10	1.35									
158.1	4.04	2.46		10.22	1.05	1.28									
152.3	3.52	2.37		10.15	12.58	1.18									
148.3	s 3.44	2.32		10.08	12.53	s 1.12									
146.8	3.39	2.29		10.05	12.51	1.08									
142.4	3.31	2.22		9.59	12.45	1.00									
137.8	s 3.12	s 2.15		s 9.52	s 12.38	s 12.53									
134.1	3.00	2.09		9.45	12.33	12.48									
129.6	2.53	2.03		9.40	12.27	12.42									
125.6	2.47	1.57		9.35	12.22	12.37									
123.2	2.44	1.54		9.32	12.19	12.34									
118.9	2.38	1.48		9.26	12.14	12.28									
114.9	2.29	1.42		9.21	12.09	12.22									
112.1	2.25	1.38		9.17	12.05	12.18									
109.4	2.21	1.34		9.14	12.02AM	12.14									
106.8	2.17	1.30		9.11	11.59PM	12.11									
103.9	s 2.11	1.25		9.07	11.55	s 12.07									
101.8	2.05	s 1.20	1.30PM	9.04	11.52	12.04									
100.3	2.02	1.17	f 1.27	9.02	11.49	12.01AM									
96.4	1.56	1.11	f 1.21	8.56	11.44	11.56PM									
96.0															
95.2	1.54	1.09	1.19	8.54	11.42	11.54									
93.5															
91.7	1.49	1.04	1.14	8.49	11.38	11.49									
88.6															
87.7															
84.2	1.35AM	12.50PM	1.00PM	8.35PM	11.25PM	11.35PM									
(98.8)	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily									

Time	(3.30)	(2.10)	(0.30)	(2.00)	(2.15)	(2.55)	(6.15)	(5.05)	(5.05)
Average Speed per Hour	28.2	37.6	35.2	40.7	43.9	33.8	15.8	15.9	15.9

Westward trains are superior to trains of the same class in the opposite direction—See Rule 72.

WESTWARD

FIFTH SUBDIVISION

Length of Sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and tele-phones.	SECOND CLASS				FIRST CLASS							Distance from Huntington	Time-Table No. 71		
		251 Time Freight	977 Way Freight	691 Time Freight	255 Time Freight	561 Passenger	19 Passenger	17 Passenger	11 Passenger	23 Passenger	5 Mail		563 Passenger	June 9, 1929	
		Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		Leave Daily		STATIONS
WFTOP		8.00PM			1.45AM								305.3	DN-R THE DALLES Dk-Wh	
P		8.23			1.58								307.8	CRATES	
3309 P		8.42			2.20								313.4	ROWENA	
3165 P		8.54			2.35								317.0	CHATFIELD	
3250 P		9.10			2.50								320.3	MOSIER H	
3629 West 5350 East WP		9.35			3.10								326.3	DN HOOD RIVER Ki	
4040 P		9.52			3.25								330.4	MENO	
3255 P		9.58			3.30								332.0	SONNY	
													334.2	VIENTO	
4900 P		10.20 10.35			3.45								336.6	LINDSEY	
5110 WTP		10.57			3.58								339.8	WYETH	
4900 P		11.12			4.10								342.7	FARLEY	
4900 FP		11.41PM			4.25								346.6	DN CASCADE LOCKS Cj	
3537 West 3246 East WTP Spur		12.05AM			4.45								349.4	EAGLE CREEK	
3315 P		12.20			5.09								350.8	DN BONNEVILLE	
3108 P		12.30			5.20								353.7	WARRENDALE	
													355.4	DODSON	
3479 OP		12.50			5.38								358.1	ONEONTA	
4900 P		1.04			5.50								359.9	MULTNOMAH FALLS	
1040													363.2	DN BRIDAL VEIL Ju	
3050 P		1.18			6.00								365.6	LATOURELL	
5979 WTP		1.35			6.15								367.1	ROOSTER ROCK	
2700 P													369.1	CORBETT	
2720 P													370.4	TAYLOR	
1560 P		VIA KENTON			VIA KENTON								373.9	DN TROUTDALE Sn	
1058													376.3	FAIRVIEW Fa	
3215 P		1.50			6.35								381.8	CLARNIE	
347													385.1	GRAHAM	
3315 P		2.05			7.00								387.6	BRUN	
311													378.9	HEMLOCK	
3402		2.20			7.25								381.7	WARD	
1415 YP		2.30			7.42								383.6	FIR	
P													385.6	ADAMSBORO	
1415 YP													389.1	KENTON	
1415 YP		2.30	12.23	7.03	7.42								390.3	PENINSULA JCT.	
P													391.5	DN NORTH PORTLAND JCT. LD	
WFTYOP		3.00AM	12.55PM	7.35AM	8.15AM								390.3	PENINSULA JCT.	
IP													390.3	PENINSULA JCT.	
IP													391.8	ST. JOHNS JCT.	
													393.0	MILLROAD	
													394.3	DN-R ALBINA B	
													394.4	HARDING ST.	
													388.9	EAST PORTLAND	
													389.2	UNITED RY. CROSSING	
													389.5	DN-R PORTLAND Dispr X P-So-Ve	
		Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		(84.2)	

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

Between Peninsula Jct. and St. Johns Jct. trains will be governed by Train Staff Rules. See Rules 409 (A) to 409 (S) inclusive. Trains and engines will be governed by Northern Pacific Terminal Company's Rules and Regulations while in their yard at Portland.

FIFTH SUBDIVISION

EASTWARD

Time-Table No. 71

June 9, 1929

STATIONS	Distance from Portland	FIRST CLASS							SECOND CLASS					
		20	562	18	12	6	24	564	978	692	258	252	256	
		Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Way Freight	Time Freight	Time Freight	Time Freight	Time Freight	
DN-R THE DALLES Dk-Wh	84.2	12.40PM		8.30PM	11.20PM	11.30PM	1.30AM				9.25PM	12.30AM	1.55AM	
CRATES	81.7	12.31		8.23	11.13	11.23	1.21				9.14	12.19	1.42	
ROWENA	76.1	12.22		8.16	11.06	11.16	1.12				9.04	12.04AM	1.27	
CHATFIELD	72.5	12.15		8.10	11.00	11.10	1.05				8.54	11.53PM	1.16	
D MOSIER H	69.2	12.08PM		8.05	10.55	11.05	12.58				8.47	11.45	1.08	
DN HOOD RIVER KI	63.2	11.55AM		7.53	10.43	10.53	12.48				8.33	11.30	12.48 12.30	
MENO	59.1	11.47		7.45	10.35	10.45	12.40				8.23	11.19	12.18	
SONNY	57.5	11.44		7.43	10.33	10.43	12.38				8.20	11.15	12.14	
VIENTO	55.3													
LINDSEY	52.9	11.35		7.35	10.25	10.35	12.30				8.11	11.04	12.02AM	
WYETH	49.7	11.28		7.30	10.20	10.30	12.24				8.04	10.57	11.54PM	
FARLEY	46.8	11.22		7.26	10.16	10.26	12.19				7.57	10.50	11.48	
DN CASCADE LOCKS CJ	42.9	11.13		7.20	10.10	10.20	12.12				7.50	10.42	11.41	
EAGLE CREEK	40.1													
D BONNEVILLE Mu	38.7	11.03		7.13	10.03	10.13	12.05AM				7.38	10.33	11.30	
WARRENDALE	35.8													
DODSON	34.1	10.54		7.07	9.57	10.07	11.58PM				7.29	10.23	11.21	
ONEONTA	31.4	10.48		7.03	9.53	10.03	11.54				7.24	10.18	11.16	
MULTNOMAH FALLS	29.6													
D BRIDAL VEIL Ju	26.3	10.38		6.55	9.45	9.55	11.46				7.15	10.10	11.07	
LATOURELL	23.9													
ROOSTER ROCK	22.4	10.30		6.50	9.40	9.50	11.40				7.08	10.03	10.59	
CORBETT	20.4													
TAYLOR	19.1	10.23		6.45	9.35	9.45	11.35				7.02	9.57	10.52	
DN TROUTDALE Sn	15.6	10.16		6.40	9.30	9.40	11.30				6.55	9.50	10.45	
FAIRVIEW Fa	13.2	10.12		6.36	9.26	9.36	11.26							
CLARNIE	7.7	10.00		6.28	9.18	9.28	11.17							
GRAHAM	4.4	9.53		6.22	9.12	9.22	11.12				VIA KENTON	VIA KENTON	VIA KENTON	
BRUN	1.9	9.47		6.17	9.07	9.17	11.07							
HEMLOCK	17.0										6.42	9.12	10.12	
WARD	14.2													
FIR	12.3										6.32	9.02	10.02	
ADAMSBORO	10.3													
KENTON	6.8										6.20	8.50	9.50	
PENINSULA JCT.	5.6										6.15	8.45	9.45	
DN NORTH PORTLAND JCT. ED	6.8						11.38PM			6.55AM	8.00PM			
PENINSULA JCT.	5.6						11.34			6.50	7.55			
PENINSULA JCT.	5.6						11.34			6.50	7.55	6.15	8.45	9.45
ST. JOHNS JCT.	4.1						11.30			6.40	7.50	6.10	8.40	9.40
MILLROAD	2.9						11.25			6.35	7.40	6.05	8.35	9.35
DN-R ALBINA B	1.6									6.30AM	7.30PM	6.00PM	8.30PM	9.30PM
HARDING ST.	1.5						11.21							
EAST PORTLAND	0.6	9.43	11.03	6.13	9.03	9.13	11.03	11.18						
UNITED RY. CROSSING	0.3													
DN-R PORTLAND Dispr X P-So-Vc	0.0	9.40AM	11.00AM	6.10PM	9.00PM	9.10PM	11.00PM	11.15PM						
(84.2)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily

Time.....	(3.00)	(0.19)	(2.20)	(2.20)	(2.20)	(2.30)	(0.23)			(0.25)	(0.30)	(3.25)	(4.00)	4.25
Average Speed per Hour.....	28.0	21.4	36.1	36.1	36.1	33.7	17.7			12.5	10.4	26.0	22.2	(20.1)

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

Between Peninsula Jct. and St. Johns Jct. trains will be governed by train staff rules. See Rules 409 (A) to 409 (S) inclusive. Trains and engines will be governed by Northern Pacific Terminal Company's rules and regulations while in their yard at Portland.

WESTWARD

SIXTH SUBDIVISION

Length of Sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and tele-phones.	SECOND CLASS				FIRST CLASS								Distance from Seattle	Time-Table No. 71 June 9, 1929	
	977 Way Freight		691 Time Freight		563 Passenger	43 C. M. St. P. & P. Passenger (18)	37 C. M. St. P. & P. Passenger (16)	561 Passenger	41 C. M. St. P. & P. Passenger (15)	1 C. M. St. P. & P. Passenger	35 C. M. St. P. & P. Passenger (17)				
	Leave Daily	Ex. Sun.	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily				
P												0.0	DN-R SEATTLE	Ow	
												1.9	G. N. Crossing		
												1.9	N. P. Crossing		
IWFTOYP				6.25PM								3.1	DN-R ARGO	G	
1354 3401	IP			6.45PM								9.4	DN-R BLACK RIVER	Bi	

BETWEEN TACOMA JCT. AND BLACK RIVER, TRAINS WILL BE GOVERNED BY TIME-TABLE RULES AND REGULATIONS OF CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RY.

P				8.20PM									35.7	DN TACOMA JCT.	Jn
													36.4	N. P. Crossing	
				8.30PM									36.5	DN RESERVATION	Rn
													36.7	N. P. Crossing	
													36.7	N. P. Crossing	
													36.8	N. P. Crossing	
													38.0	N. P. Crossing	

BETWEEN VANCOUVER AND RESERVATION, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

BETWEEN NORTH PORTLAND JCT. AND VANCOUVER, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF SPOKANE, PORTLAND & SEATTLE RY.

P				12.15PM	6.00AM									176.4	NORTH PORTLAND JCT.
1415	YP													177.6	PENINSULA JCT.
	P													179.1	ST. JOHNS JCT.
	P													180.3	MILLROAD
	P													181.6	ALBINA
	IP			12.55PM	7.35AM									181.7	HARDING ST.
														182.6	EAST PORTLAND
														182.9	United Ry. Crossing
	I													183.2	PORTLAND
				Arrive Daily	Arrive Daily										183.2
				Ex. Sun.											

(0.40) (13.10) (7.00) (0.09) (0.09) (6.00) (0.09) (0.09) (0.09) Time
7.8 13.9 26.2 20.6 20.6 30.5 20.6 20.6 20.6 Average Speed per Hour

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

Time shown between Portland and North Portland Jct. is for information only. Trains will be governed by Fifth Subdivision time-table between Portland and North Portland Jct.

SIXTH SUBDIVISION

EASTWARD

Time-Table No. 71.
June 9, 1929

Distance from
Portland

FIRST CLASS

SECOND CLASS

STATIONS	Distance from Portland	FIRST CLASS							SECOND CLASS				
		564 Passenger	32 C. M. St. P. & P. Passenger (17)	38 C. M. St. P. & P. Passenger (15)	562 Passenger	34 C. M. St. P. & P. Passenger (16)	42 C. M. St. P. & P. Passenger (18)	2 C. M. St. P. & P. Passenger	692 Time Freight	978 Way Freight			
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Ex. Sun.		
DN-R SEATTLE Ow	183.2	6.30AM	7.30AM	10.00AM	5.00PM	6.00PM	8.45PM	9.00PM					
1.9 G. N. Crossing	181.3												
0 N. P. Crossing	181.3												
DN-R ARGO G	180.1	6.20	7.21AM	9.51AM	4.51	5.51PM	8.36PM	8.51PM	6.45AM				
1.2 0.3 DN-R BLACK RIVER Bi	173.8	6.00AM			4.35PM				6.25AM				

BETWEEN TACOMA JCT. AND BLACK RIVER, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RY.

STATIONS	Distance from Portland	564	32	38	562	34	42	2	692	978
DN TACOMA JCT. Jn	147.5	5.10AM			3.45PM				5.15AM	
0.7 N. P. Crossing	146.8									
DN RESERVATION Rn	146.7	5.06AM			3.42PM				5.10AM	
0.1 N. P. Crossing	146.5									
0 N. P. Crossing	146.5									
0.1 N. P. Crossing	146.4									
1.2 N. P. Crossing	145.2									

BETWEEN VANCOUVER AND RESERVATION, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

BETWEEN NORTH PORTLAND JCT. AND VANCOUVER, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF SPOKANE, PORTLAND & SEATTLE RY.

STATIONS	Distance from Portland	564	32	38	562	34	42	2	692	978
NORTH PORTLAND JCT.	6.8	11.38PM			11.20AM				8.00PM	6.55AM
1.2 PENINSULA JCT.	5.6									
1.5 ST. JOHNS JCT.	4.1									
1.2 MILLROAD	2.9									
1.3 ALBINA	1.6								7.30PM	6.30AM
0.1 HARDING ST.	1.5									
0.9 EAST PORTLAND	0.6									
0.3 United Ry. Crossing	0.3									
0.3 PORTLAND	0.0	11.15PM			11.00AM					
(183.2)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		Leave Daily	Leave Daily Ex. Sun.

Time.....	(7.15)	(0.09)	(0.09)	(6.00)	(0.09)	(0.09)	(0.09)	(0.09)	(11.15)	(0.25)
Average Speed per Hour.....	25.2	20.6	20.6	30.5	20.6	20.6	20.6	20.6	16.3	12.5

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

Time shown between Portland and North Portland Jct. is for information only. Trains will be governed by Fifth Subdivision time-table between Portland and North Portland Jct.

WESTWARD					BEND BRANCH			EASTWARD								
Length of Sidings in feet and location of Telephones, Scales, Water, Fuel and Turning Stations.	SECOND CLASS			FIRST CLASS		Distance from Bend	Time-Table No. 71 June 9, 1929			Distance from Sherman	FIRST CLASS		SECOND CLASS			
	313 Time Freight	309 O. T. Ry. Local Freight	311 O. T. Ry. Through Freight	103 O. T. Ry. Passenger	29 Passenger		STATIONS				30 Passenger	102 O. T. Ry. Mixed	310 O. T. Ry. Through Freight	308 O. T. Ry. Local Freight	314 Time Freight	
	Leave Daily	Leave Tues. & Thurs.	Leave Daily Ex. Mon.	Leave Daily	Leave Daily		DN-R	BEND	Nd		147.3	7.25PM		6.10AM		
BETWEEN METOLIUS AND BEND TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF THE OREGON TRUNK RAILWAY																
WFYT	3.50AM	11.40AM	3.15AM	10.45PM	8.45AM	41.3	DN-R	METOLIUS	Ms	106.0	5.50PM	5.15AM	4.30AM	2.45PM	3.50AM	
291						43.8		AGENCY		103.5						
2680	W	4.10	12.01PM	3.35	11.00	8.55	D	MADRAS	Md	101.1	5.35	4.55	4.10	2.10	3.35	
2480		4.35	12.25	3.50	11.15	9.05		PAXTON		95.4	5.20	4.35	3.50	1.40	3.15	
2000	W	5.00	1.10	4.15	11.30	9.20	D	GATEWAY	Gw	89.9	5.05	4.15	3.15	1.10	3.00	
						63.1		TRUMAN		84.2						
1280	WFP	5.35AM	1.35PM	4.50AM	11.52PM	9.40AM	R	SOUTH JUNCTION		81.7	4.45PM	3.45AM	2.45AM	12.45PM	2.35AM	
BETWEEN NORTH JUNCTION AND SOUTH JUNCTION TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF THE OREGON TRUNK RAILWAY																
P	6.05AM				10.05AM	76.0	D-R	NORTH JUNCTION	Jn	71.3	4.25PM				2.05AM	
1100					10.10	77.1		COVE CREEK		70.2	4.20				2.00	
1160					10.15	80.0		TWO SPRINGS		67.4	4.15				1.52	
475	P	6.45			10.35	88.1		McLENNAN		59.2	3.55				1.32	
1150	WP	7.05			10.55	96.1	D	MAUPIN	Hf	51.2	3.40				1.12	
						100.3		OAK SPRINGS		47.0						
					11.16	104.5		SHERARS BRIDGE		42.8	3.20				12.46	
1290	WP	7.35			11.20	105.1		FARGHER		42.2	3.15				12.43	
1200		8.05			11.45	115.5		TUNNEL ONE		31.8	2.50				12.13AM	
						120.3		KETCHUM		27.0						
1160	P	8.20			11.59AM	121.1		BLUFFS		26.2	2.35				11.55PM	
2650	W	8.55			12.25PM	133.0		MAYS		14.3	2.05				11.22	
						134.2		HARRIS		13.1						
310		9.10			12.40	137.4		FREE BRIDGE		9.9	1.55				11.10	
	WY	9.40AM			1.15PM	147.3	D-R	SHERMAN	Vo	0.0	1.35PM				10.40PM	
								(147.3)			Leave Daily	Leave Daily	Leave Daily Ex. Tues.	Leave Daily Ex. Monday	Leave Daily	

WESTWARD					SHANIKO BRANCH			EASTWARD				
Length of Sidings in feet and location of Telephones, Scales, Water, Fuel and Turning Stations.	SECOND CLASS		Distance from Shaniko	Time-Table No. 71 June 9, 1929			Distance from Biggs	SECOND CLASS				
	125 Mixed	105 Mixed		STATIONS				106 Mixed	126 Mixed			
	Lv Sat Tues & Thurs	Lv Mon Wed Fri & Sun		Ar Sun Mon Wed & Fri	Ar Tues Thurs & Sat	Ar Sun Mon Wed & Fri		Ar Tues Thurs & Sat				
3385	WFYP	7.45PM	0.0	D-R	SHANIKO	Sh	69.7		8.20AM			
345			6.7		KELSEY		63.0					
620	f	8.20	12.6		WILCOX		57.1	f	7.40			
902	s	8.35	17.2		KENT		52.5	s	7.25			
650	f	8.55	23.9		BOURBON		45.8	f	7.15			
1370	WT	9.15	31.2	D-R	GRASS VALLEY	Vy	38.5	6.45AM	6.45			
Spur	f	9.40	38.4		ERSKINE		31.3	f	6.10			
2422	W	10.20	42.7	D	MORO	Mr	27.0	s	5.50			
834	f	10.35	45.8		DE MOSS		23.9	f	5.35			
Spur	f	10.50	49.7		NISH		20.0	f	5.20			
Spur		11.00	50.5		HAY CANYON		19.2		5.15			
Spur	f	11.20	54.1		SANDON		15.6	f	5.00			
1010	s	11.30PM	55.5		KLONDIKE		14.2	s	4.55			
1758	W	12.05AM	60.0	D	WASCO	Wa	9.7	s	4.30			
Spur	f	12.25	62.6		SINK		7.1	f	4.20			
565	f	12.35	64.5		THORNBERRY		5.2	f	4.10			
6656	WFYP	1.15AM	69.7	DN-R	BIGGS	Bx	0.0	3.50AM	3.50AM			
					(69.7)			Lv Sun Mon Wed & Fri	Leave Tues Thurs & Sat			
		(5.30) 12.4	(4.00) 9.6		Time		(2.55) 13.2	(4.30) 15.1	Average Speed per Hour			

(8.25) 17.5 (1.55) 12.6 (1.35) 15.3 (1.07) 21.7 (5.50) 25.2 Time (5.50) 25.2 (1.30) 16.2 (1.45) 13.8 (2.00) 12.2 (7.30) 19.6
 Time shown at Bend is for information only. At this station trains will be governed by time-table of Oregon Trunk Ry.

WESTWARD					CONDON BRANCH			EASTWARD				
Length of Sidings in feet and location of Telephones, Scales, Water, Fuel and Turning Stations.	SECOND CLASS		Distance from Condon	Time-Table No. 71 June 9, 1929			Distance from Arlington	SECOND CLASS				
	127 Mixed	107 Passenger		STATIONS				108 Passenger	128 Mixed			
	Leave Daily Ex. Sunday	Leave Sunday		DN-R <th>CONDON <th>Cd <th>44.5 <th>7.15AM <th>7.15AM </th></th></th></th></th>	CONDON <th>Cd <th>44.5 <th>7.15AM <th>7.15AM </th></th></th></th>	Cd <th>44.5 <th>7.15AM <th>7.15AM </th></th></th>		44.5 <th>7.15AM <th>7.15AM </th></th>	7.15AM <th>7.15AM </th>	7.15AM		
5260	WFYP	10.00PM	0.0	D-R	CONDON	Cd	44.5	7.15AM	7.15AM			
1278		10.25	8.2		GWENDOLEN		36.3	6.35	6.35			
1515		10.40	12.2		SPEECE		32.3	6.20	6.20			
1533		10.55	15.9		CLEM		28.6	6.01	6.01			
1515	W	11.25	20.1		MIKKALO		24.4	5.40	5.40			
1400		11.50PM	24.8		BARNETT		19.7	5.20	5.20			
662	W	12.15AM	28.5		ROCK CREEK		16.0	5.01	5.01			
122			30.8		SMYTHE		13.7					
1504		12.45	37.2		SHUTLER		7.3	4.35	4.35			
6920	WFYP	1.30AM	44.5	DN-R	ARLINGTON	Mr	0.0	4.05AM	4.05AM			
					(44.5)			Leave Monday	Leave Daily Ex. Monday			

WESTWARD					HEPPNER BRANCH			EASTWARD				
Length of Sidings in feet and location of Telephones, Scales, Water, Fuel and Turning Stations.	SECOND CLASS		Distance from Heppner	Time-Table No. 71 June 9, 1929			Distance from Heppner Jct.	SECOND CLASS				
	129 Mixed	109 Passenger		STATIONS				110 Passenger	130 Mixed			
	Leave Daily Ex. Sunday	Leave Sunday		DN-R <th>HEPPNER <th>Hr <th>45.2</th> <th>6.30AM</th> <th>6.30AM</th> </th></th>	HEPPNER <th>Hr <th>45.2</th> <th>6.30AM</th> <th>6.30AM</th> </th>	Hr <th>45.2</th> <th>6.30AM</th> <th>6.30AM</th>		45.2	6.30AM	6.30AM		
2867	WTFP	10.00PM	0.0	D-R	HEPPNER	Hr	45.2	6.30AM	6.30AM			
1029	s	10.30	8.9		LEXINGTON		36.3	s	6.00			
471	P	10.45	14.2		JORDAN		31.0	f	5.45			
1150	s	11.20	16.9		IONE	On	28.3	s	5.30			
132	W	11.35	20.0		McNAB		25.2	s	5.15			
835	s	11.55PM	25.4		MORGAN		19.8	s	5.02			
263	f	12.15AM	27.5		MORSIL		17.7	f	4.55			
330	W	12.30	30.7		CECIL		14.5	s	4.45			
158	f	12.40	34.3		EWING		10.9	f	4.35			
734	f	12.55	38.4		RHEA		6.8	f	4.25			
136			42.2		HARRIETT		3.0					
1780	TP	1.25AM	45.2	D-R	HEPPNER JCT.	Wi	0.0	4.00AM	4.00AM			
					(45.2)			Leave Monday	Leave Daily Ex. Monday			

(3.30) 12.7 (2.15) 19.8 Time (3.10) 14.0 (3.10) 14.0 (3.25) 13.2 (1.55) 23.5 Time (2.30) 18.1 (2.30) 18.1
 Average Speed per Hour Average Speed per Hour Average Speed per Hour Average Speed per Hour

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

		WESTWARD				GRAY'S HARBOR BRANCH				EASTWARD				WESTWARD		TONO BRANCH		EASTWARD				
Length of Sidings in feet and location of water, fuel, in-plant, locking lants, turning stations, scales and tele-phones.		SECOND CLASS		FIRST CLASS		Distance from Centralia	Time-Table No. 71				Distance from Hoquiam	FIRST CLASS		SECOND CLASS		Length of Sidings in feet and location of Tele-phones, Scales, Water, Fuel and Turning Stations.	Distance from Tono	Time-Table No. 71				Distance from Centralia
		987	463	415	577		June 9, 1929					416	578	988	462			June 9, 1929				
		Way Freight	C. M. St. P. & P. Fast Frt.	C. M. St. P. & P. Passenger	Mixed							C. M. St. P. & P. Passenger	Passenger	Way Freight	C. M. St. P. & P. Fast Frt.							
		Leave Daily Ex. Sun.	Leave Daily Ex. Sun.	Leave Daily	Leave Daily							Arrive Daily	Arrive Daily	Arrive Daily Ex. Sun.	Arrive Daily Ex. Sun.							
	WFTYOP	10.00AM			3.00AM	0.0	DN-R	CENTRALIA	Cn	57.5		1.45AM		8.30PM		2179	WFOP	0.0	R	TONO	8.0	
								2.4							2373		5.8		5.8	WABASH	2.2	

BETWEEN BLAKESLEE JUNCTION AND CENTRALIA, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

IP	10.15AM				3.30AM	2.4	BLAKESLEE JUNCTION				55.1	1.30AM			8.20PM	
						2.4	N. P. CROSSING				55.1					
						2.4	C. M. ST. P. & P. CROSSING				55.1					
1359	P	10.35			f 3.40	5.0	D	GALVIN	Rk	52.5	f 1.23			8.10		
2285	P	10.55	2.43AM		f 3.55	12.2	R	HELSING JUNCTION		45.3	2.15PM	f 1.05		7.50	8.00PM	
2680	WP	11.15	2.50		s 3.20	s 4.00	13.7	DN	INDEPENDENCE	Nd	43.8	s 2.10	s 1.00	7.40	7.55	
1129	P	11.30	3.05		f 3.30	f 4.15	18.3		BALCH		39.2	f 1.56	f 12.44	7.25	7.40	
Spur						18.9		KERN		38.6						
Spur						20.2		SPRUCETON		37.3						
2718	P	11.47AM	3.20		f 3.37	f 4.27	22.2		CEDARVILLE		35.3	f 1.48	f 12.36	7.15	7.30	
						23.0		CALLOW		34.5						
Spur						23.6		CRAFTSDALE		33.9						
687	P	12.05PM	3.35		f 3.45	f 4.40	26.3		LANKNER		31.2	f 1.41	f 12.26	7.05	7.20	
Spur						28.2		BALLAST		29.3						
738		12.15	3.42		f 3.51	f 4.45	28.9		RONY		28.6	1.36	12.20	7.00	7.15	
2353	IP	12.25	3.50		f 3.56	f 4.50	30.8		SAGINAW		26.7	f 1.32	f 12.15	6.50	7.10	
						30.5		SCHAFFER BROS. CROSSING		26.0						
Spur	WP	12.35	3.55		f 4.01	f 5.00	32.5		SOUTH ELMA		25.0	f 1.27	f 12.10AM	6.45	7.05	
Spur						33.2		DAMON		24.3						
1747	P	12.50	4.05		f 4.09	f 5.10	36.0		FULLER		21.5	f 1.22	f 11.55PM	6.30	6.50	
2744		1.10	4.30		f 4.21	f 5.28	42.3	D	SOUTH MONTESANO	Mo	15.2	f 1.10	f 11.35	6.11	6.30	
						42.3	D	SOUTH MONTESANO	Mo	15.2						
						43.8		MONTESANO		16.7						
2744		1.10	4.30		f 4.21	f 5.28	42.3	D	SOUTH MONTESANO	Mo	15.2	f 1.10	f 11.35	6.11	6.30	
1523	P	1.30	4.35		f 4.24	f 5.33	43.8		MELBOURNE		13.7	f 1.07	f 11.30	5.45	6.14	
217						45.3		TINGLE		12.2						
1751	P	1.55	4.45		f 4.31	f 5.41	46.7		PREACHER'S SLOUGH		10.8	f 1.01	f 11.20	5.22	5.50	
1294						48.8		BLUE SLOUGH		8.7						
6107	WFTYOP	2.30	5.00		s 4.45	s 6.00	51.2	Back Signals	D-R	COSMOPOLIS	Cs	6.3	s 12.53	s 11.10	4.55	5.35
						53.3		N. P. CROSSING		4.2						
4135	WITYOP	3.10PM	5.15AM		4.50PM	6.15AM	53.9	DN-R	ABERDEEN	Sa	3.6	12.45PM	11.00PM	4.50PM	5.20PM	

BETWEEN ABERDEEN AND HOQUIAM, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

WFTYOP	3.25PM	6.00AM			5.00PM	7.15AM	57.5	DN-R	HOQUIAM	Ho	0.0	12.30PM	10.40PM		4.25PM	5.00PM
	Arrive Daily Ex. Sun.	Arrive Daily Ex. Sun.			Arrive Daily	Arrive Daily			(57.5)			Leave Daily	Leave Daily		Leave Daily Ex. Sun.	Leave Daily Ex. Sun.
	(5.25) 10.6	(3.17) 13.8			(1.45) 25.9	(4.15) 13.5						(1.45) 25.9	(3.05) 18.7		(4.05) 14.0	(3.00) 15.1

Time shown at Hoquiam and Centralia is for information only. At these stations trains will be governed by time-table of Northern Pacific Ry.

BETWEEN WABASH AND CENTRALIA TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

WFTYOP		8.0	DN-R	CENTRALIA	Ds	0.0
				(8.0)		

..... Time
..... Average Speed per Hour

WESTWARD PRIMO BRANCH EASTWARD

Length of Sidings in feet and location of Tele-phones, Scales, Water, Fuel, and Turning Stations.		Time-Table No. 71		Distance from Cosmopolis
		June 9, 1929		
		STATIONS		
		PRIMO	13.1	
	Spur	MIDSON	11.6	
	Spur	ARCTIC	7.3	
	1002	BRIDGES	5.2	
	6107 WFTYOP	COSMOPOLIS	0.0	
		(13.1)		

..... Time
..... Average Speed per Hour

		WESTWARD				OLYMPIA BRANCH				EASTWARD					
Length of Sidings in feet and location of Tele-phones, Scales, Water, Fuel and Turning Stations.		FIRST CLASS		121		Distance from Chambers Prairie	Time-Table No. 71				Distance from Olympia	FIRST CLASS		122	
				Mixed	June 9, 1929				Mixed						
				Leave Daily					Arrive Daily						
				2.30PM	0.0		DN-R	CHAMBERS PRAIRIE	Ma	7.4		1.25PM			
	PY					1.8		KNAUER		5.6					
	Spur					7.3		N. P. CROSSING		5.5					
	PWFY					7.4	D-R	OLYMPIA	Oa	0.0	1.00PM				
						7.4					Leave Daily				
						(0.25) 17.8					(0.25) 17.8				

Eastward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

FIRST DIVISION

SPECIAL RULES

ADDITIONAL FLAG STOPS FOR REVENUE PASSENGERS, MAIL AND EXPRESS

2 (R). Time Inspectors are located as shown below:

R. V. Owens, General Supervisor of Time Service, Omaha.

Portland	Belding & Saxton
Portland	N. L. Nielson
Portland	W. L. Young
The Dalles	Norman E. Potter
Seattle	Arnt Setter
Georgetown	W. C. Hudson
Tacoma	S. Grimstead
Centralia	C. R. Ahern
Heppner	J. O. Peterson
Hoquiam	F. W. Straub
Aberdeen	S. J. Stieglitz
Olympia	O. R. Simenson & Son

3 (R). Standard clocks are located at the points shown below:

Umatilla	Telegraph Office
Umatilla	Roundhouse
Heppner Junction	Telegraph Office
Arlington	Telegraph Office
Biggs	Telegraph Office
The Dalles	"WH" Telegraph Office
The Dalles	"DK" Telegraph Office
Portland (Joint)	N. P. T. Co. Telegraph Office
Portland	Dispatcher's Office
Albina	Telegraph Office
Seattle (Joint)	Union Station Telegraph Office
Argo	Yard Office
Centralia (Joint)	N. P. Ry. Telegraph Office
Olympia	Telegraph Office
Hoquiam (Joint)	N. P. Ry. Telegraph Office
Aberdeen	Telegraph Office
Cosmopolis	Telegraph Office
Bend (Joint)	O. T. Ry. Telegraph Office

10 (h). At night, a yellow light on a Dwarf Signal, or on a "Call-on" or "Short-arm" Signal of an interlocking plant, indicates "proceed at slow speed."

17 (C). When rules require headlight to be displayed, electric headlights will be dimmed under conditions outlined below, except in foggy or stormy weather or when other conditions make it inadvisable:

In yards where yard engines are employed and at stations where switching is being done;

At meeting points, until the train to be met is clear of the main track;

When standing;

On two or more tracks when approaching trains running in opposite direction.

These instructions do not supersede or modify those contained in Rules 17 and D-17.

28 (A). A white indicator board displayed at a station will indicate to trains doing local work that there are cars or LCL freight to be moved.

28 (R). ADDITIONAL FLAG STOPS TO PICK UP REVENUE PASSENGERS.

TRAIN	STOPS	PASSENGERS FOR
6	Between Portland and Umatilla.....	Transfer to No. 76 at Umatilla enroute to destination served by that train.
12	Between Portland and Umatilla.....	Points north of Ayer Junction.
19	Between Messner and Sherman.....	Bend Branch.
23	Between The Dalles and Troutdale....	Portland.
23	Irrigon.....	The Dalles or west thereof.
23	Rufus.....	The Dalles or west thereof.

ADDITIONAL FLAG STOPS TO DISCHARGE REVENUE PASSENGERS.

TRAIN	STOPS	PASSENGERS FROM
11 *	Any station.....	Third Division.
17	Any station.....	Cheyenne or points east or south thereof.
19	Any station.....	Cheyenne or points east or south thereof.
23	Any station.....	East of Pendleton and from Heppner, Shaniko and Condon Branches.
24 *	Any station.....	Shaniko, Condon and Heppner Branches.
24	Bridal Veil, on Saturday and Sunday only.....	Any station.
24	Multnomah Falls, on Saturday only...	Any station.
20	Viento.....	Any station.
563	Kalama.....	Grays Harbor Branch on Portland Sleeper.

TRAIN	STOPS	TO AND FROM
29	Oak Springs.....	Any station.
29	Ketchum.....	Any station.
29	Harris.....	Any station.
30	Oak Springs.....	Any station.
30	Ketchum.....	Any station.
30	Harris.....	Any station.
102	Truman.....	Any station.
103	Truman.....	Any station.
29	Truman.....	Any station.
30	Truman.....	Any station.
19	Corbett.....	Any station.
19	Latourell.....	Any station.
19	Multnomah Falls.....	Any station.
19	Warrendale.....	Any station.
19	Eagle Creek.....	Any station.
20	Corbett.....	Any station.
20	Latourell.....	Any station.
20	Multnomah Falls.....	Any station.
20	Warrendale.....	Any station.
20	Eagle Creek.....	Any station.
29	Seufert.....	Any station.
29	Big Eddy.....	Any station.
29	Dillon.....	Any station.
29	Tumwater.....	Any station.
30	Seufert.....	Any station.
30	Big Eddy.....	Any station.
30	Dillon.....	Any station.
30	Tumwater.....	Any station.
415	Tingle.....	Any station.
416	Tingle.....	Any station.
577	Tingle.....	Any station.
578	Tingle.....	Any station.

Note.—No. 6 will stop on flag at any station to load and unload express.
 No. 19 will stop at Blalock and Rufus to load and unload mail and express.
 No. 23 will stop at Irrigon and Boardman to load and unload mail and express.
 No. 24 will stop at Rufus, Blalock and Boardman to load and unload mail and will pick up mail at Rufus for points west of Rufus and leave at Arlington.
 No. 24 will stop at Irrigon for mail and express.
 No. 20 will stop on flag at mail crane at Wyeth to load and unload bulky or fragile parcel post mail, when necessary.

83 (E). Train registers will not be used by train or enginemen as a means of identifying extra trains.

83 (F). Check of trains at Peninsula Jct. as prescribed by Rule 83 is not required for movement Peninsula Jct. to St. Johns Jct.

83 (G). Sixth Subdivision eastward trains will receive clearance card at Black River for movement Black River to Argo or Seattle.

83 (H). C. M. St. P. & P. eastward passenger trains are not required to receive clearance card or check of trains at Argo as per Rules 83 and 83(A), but may proceed Argo to Seattle on clear signal indication from interlocking tower at Argo and run with current of traffic, being governed by Rule 93.

83 (I). To enable westward trains originating at Seattle to comply with Rule 83 when passing from double to single track at Argo, train register at Seattle will also serve as train register for Argo, and conductors and enginemen must identify eastward trains which are superior or of the same class between Seattle and Argo. Trains displaying signals when moving between Seattle and Argo will whistle as per Rule 14(K).

83 (J). Westward second class and extra trains originating at Tacoma will obtain check of register and clearance card at Northern Pacific, Fifteenth Street, telegraph office. Westward second class and extra trains passing through Tacoma will receive check of register and clearance card at Northern Pacific telegraph office at Reservation.

83 (K). Trains westward from Blakeslee Junction will obtain clearance card before leaving Centralia.

83 (L). Trains for which Helsing Junction is initial station will receive clearance card at Independence. Movement of westward C. M. St. P. & P. trains or engines from Junction Switch at Helsing Junction to Independence station will be governed by Home Block signal 125. If this signal fails to change to proceed position when junction switch is opened, Grays Harbor Branch main track must not be occupied until protected as required by Rule 509 against eastward trains and Rule 99 against westward trains on Grays Harbor Branch. Movement of westward O.-W. R. R. & N. trains or engines on Grays Harbor Branch main track from Junction Switch at Helsing Junction to Independence station will be governed by Home Block signal 127. When a train or engine is stopped by this signal Rule 509 will govern. Trains and engines moving eastward from Independence will be governed by Home Block signal 132 located just east of that point, complying with Block Signal Rules.

83 (M). Trains eastward from Wabash will obtain clearance card before leaving Centralia.

83 (N). Movement of westward Primo Branch trains or engines from Junction Switch, Cosmopolis, to Cosmopolis station, will be governed by Home Block signal 499. If this signal fails to change to proceed position when junction switch is opened, Grays Harbor Branch main track must not be occupied until protected as required by Rule 509 against eastward trains and Rule 99 against westward trains on Grays Harbor Branch. Trains and engines moving eastward from Cosmopolis will be governed by Home Block signal 508 located just east of that point, and westward Grays Harbor Branch trains and engines will be governed by Home Block signal 501, located just west of Blue Slough, complying with Block Signal Rules.

83 (O). Oregon Trunk Ry. trains eastward from South Jct. will obtain O.-W. R. R. & N. clearance card before leaving North Jct.

83 (P). Trains are not required to receive clearance card (Form 2643) as per Rule 83(A), as follows:

- At Primo, all westward trains;
- At Tono, all westward trains;
- At North Portland Jct. all westward trains;
- At Albina all eastward Sixth Subdivision trains.

83 (Q). Trains will register by registering ticket (Form 2642) as follows:
 At Black River, all first class trains and Nos. 691 and 692 or manifest extras.

83 (R). Train registering exceptions:
 At Albina, only trains which originate or terminate at that point will register.
 At Argo, only trains which originate or terminate in O.-W. R. R. & N. yard at that point will register.

At Wabash, Tono Branch trains originating or terminating at that point will register in O.-W. R. R. & N. train register located in N. P. Ry. telegraph office, Centralia.

At Blakeslee Junction, Grays Harbor Branch trains originating or terminating that point will register in O.-W. R. R. & N. train register located in N. P. Ry. telegraph office, Centralia.

At North Portland Jct., Fifth Subdivision trains originating or terminating that point will register in O.-W. R. R. & N. train register located in S. P. & S. Ry. telegraph office, Vancouver.

83 (S). To enable westward trains originating at The Dalles to comply with Rule 83 when passing from double to single track at Crates, train register at The Dalles will also serve as train register for Crates, and conductors and enginemen must identify eastward trains which are superior or of the same class between The Dalles and Crates. Trains displaying signals when moving between The Dalles and Crates will whistle as per Rule 14(K).

90 (R). When necessary to take siding at the following points, trains will use the tracks specified, unless otherwise instructed:

- Messner— Eastward passenger, mail, or express trains, use Umatilla-Messner line entering at junction switch;
- Hood River—All westward trains, use Siding No. 2 (South of main track); Eastward passenger, mail, and express trains, use cross-over from main track to Siding No. 1 (north of main track); Eastward freight trains, use Siding No. 1 (north of main track).

93 (R). Yard limits are established, and defined by yard limit signs, at the following stations:

Umatilla	Seattle	Shutler	Nish	Gateway
Messner	Argo	Rock Creek	DeMoss	Paxton
Arlington	Black River	Barnett	Moro	Madras
Biggs (for Shaniko Branch only)	Tacoma	Mikkalo	Erskine	Chambers Prairie
Sherman	Rhea	Clem	Grass Valley	Olympia
The Dalles	Ewing	Speece	Bourbon	Helsing Jct.
Hood River	Cecil	Gwendolen	Kent	Independence
Troutdale	Morsil	Condon	Wilcox	South Montesano
East Portland	Morgan	Thornberry	Shaniko	Montesano
Portland	McNab	Sink	Fargher	Preachers Slough
Kenton	Ione	Wasco	Maupin	Cosmopolis
Peninsula Jct.	Jordan	Klondike	North Jct.	Aberdeen
North Portland Jct.	Lexington	Sandon	South Jct.	Primo
Albina	Heppner Jct.	Hay Canyon		
	(for Heppner Branch only)			

93 (S). On parallel tracks between Portland and East Portland or Harding St., and between Millroad and St. Johns Jct., trains and engines must keep to the right. Within yard limits at The Dalles and Seattle, trains and engines must keep to the right.

93 (T). In the absence of previous instructions trains heading in at east end of The Dalles yard will use telephone located at cross-over to secure instructions as to which track to be used.

98 (R). The Washington State Law governing movement of trains over railroad crossings at grade is as follows:

"Trains shall stop at railroad crossings:— All railroads and street railroads, operating in this State shall cause their trains and cars to come to a full stop at a distance not greater than five hundred (500) feet before crossing the tracks of another railroad crossing at grade, excepting at crossings where there are established signal towers and signal men, interlocking plants or gates."

After stop has been made for railroad crossings at grade engineer will sound proceed signal as per Rule 14 (b) before proceeding.

Location	Railroad Crossed or Junction with	Trains Which Have Precedence	How Governed
Messner.	Second Division.		Junction Switch is located in front of depot. Westward trains will stop clear of junction switch, until it has been ascertained whether all trains due, which are superior, or of the same class, have arrived or left.
Peninsula Jct.	Seattle Line.		Train Staff System.
Portland (Front St.)	United Ry.	O.-W. R. R. & N.	All trains and engines must approach prepared to stop before passing over crossing, expecting to find crossing occupied.
East Portland.	S. P.		Interlocking Plant.
East Portland (East 2nd St. and Hawthorne Ave.)	P. E. P.	O.-W. R. R. & N.	All trains and engines stop before crossing.
East Portland (East 2nd St. and Morrison St.)	P. E. P.	O.-W. R. R. & N.	All trains and engines stop before crossing.
East Portland (East 2nd St. between East Salmon and East Madison Sts.)	S. P. & S.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Albina (Larabee and Delay Sts.)	P. E. P.	P. E. P.	All trains and engines stop before crossing.
Albina (Greeley St.)	P. E. P. Gate.	O.-W. R. R. & N.	All trains and engines stop before crossing.
North Portland Jct.	S. P. & S.		Interlocking Plant.
Blakeslee Jct.	C. M. St. P. & P. -N. P.		Interlocking Plant.
Saginaw.	Schafer Bros. Logging Ry.	O.-W. R. R. & N.	Cabin Interlocking Plant.
Craftdale Spur.	Schafer Bros. Logging Ry. Gate.	O.-W. R. R. & N.	All trains and engines stop before crossing.
South Aberdeen (Boone St.)	G. H. L. & P.		All trains and engines stop before crossing.
South Aberdeen (Donovan Mill)	N. P.	N. P.	All trains and engines stop before crossing.
Cosmopolis (Tail of Wye)	G. H. L. & P.		All trains and engines stop before crossing.
Olympia (Jefferson and 4th Sts.)	O. P. C.		All trains and engines stop before crossing.
Olympia (Jefferson and 7th Sts.)	N. P.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Tacoma (Dempsey Mill Spur)	N. P.	N. P.	All trains and engines stop before crossing.
Tacoma (Fir Door Spur)	N. P.	N. P.	All trains and engines stop before crossing.
Tacoma (11th St.)	City Ry.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Tacoma (St. Paul Ave.)	City Ry.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Reservation.	N. P. Draw-bridge.	N. P.	All trains and engines stop before crossing.
Black River.	C. M. St. P. & P. -P. C.		Interlocking Plant.
Argo.	N. P. -C. M. St. P. & P. -P. C.		Interlocking Plant.
Seattle (8th Ave., South)	City Ry.		All trains and engines stop before crossing.
Seattle (East Marginal Way)	City Ry.		All trains and engines stop before crossing.
Seattle (Spokane Ave. and 5th Ave.)	N. P.		All trains and engines stop before crossing.
Seattle (Spokane Ave. and Whatcom Ave.)	N. P.		All trains and engines stop before crossing.
Seattle (Whatcom Ave. and Holgate St.)	N. P.		All trains and engines stop before crossing.
Seattle (Whatcom Ave. and Massachusetts St.)	N. P.		All trains and engines stop before crossing.
Seattle (Railroad Ave. and Atlantic St.)	N. P.		All trains and engines stop before crossing.

SPECIAL RULES

98 (T). All trains and engines will stop at established stop boards and not proceed onto draw span of bridge between Montesano and South Montesano until they have called for, received and acknowledged proceed signal from bridge operator, and in addition will be governed by position of derail switch located 128 feet east and derail switch located 195 feet west of trestle leading to drawbridge. Between the hours of 5:30 P. M. and 8:30 A. M. drawbridge span will be left open for river traffic and derail switches will be set in derail position. If necessary for train or engine to use drawbridge between these hours, engineman will sound one long, one short and one long (— o —) blasts of engine whistle to call bridge operator on duty, and if bridge operator does not respond promptly person in charge of train or engine will send a member of train or engine crew to bridge operator's house to notify him that bridge is to be used.

98 (U). All trains and engines will stop at established stop boards and not proceed onto draw span of bridge at Tacoma until they have called for, received and acknowledged proceed signal from bridge tender.

101 (D). Trains will be handled with caution where sand is blowing, when weather is foggy or stormy and at points where there is liability of track being obstructed, losing time if necessary to insure safety.

D-102 (A). If a train is parted or is doubling from any cause and the front portion passes any switch of a cross-over, siding or other route via which it would then be possible for another train or engine to enter, it must not move against the current of traffic in returning to the rear portion, unless a flagman is protecting the return movement at any and all such switches, or unless the return movement has been authorized and protected by dispatcher.

103 (A). Engines must not be run under any coal mine tipple, nor through hopper tracks at coal chutes, and air must be working on all cars before starting to put up coal.

103 (B). Cars must not be handled ahead of engine between stations when practicable to avoid doing so, except in work train service. When cars are so handled it must be at slow speed.

104 (R). Switches will be set normally,
 At Messner, junction switch, —for Second Division;
 At Crates, —for eastward trains (spring switch);
 At Troutdale, junction switch, —for line via Graham;
 At Reservation, junction switch, —for O.-W. R. R. & N. main track;
 At Tacoma Jct., junction switch, —for C. M. St. P. & P. track;
 At Moro, —for main track, when cars on house track;
 —for house track when house track clear;
 —for O.-W. R. R. & N. main track;

At Helsing Jct., junction switch, —for eastward trains;
 At Aberdeen, double track switch, (250 feet east of depot) —for west leg of wye.

At South Montesano, wye switch on Montesano Branch, —for west leg of wye.

104 (S). Engines and trains trailing through spring switch at Crates must be careful to avoid making back-up movements until switch is properly lined by hand.

152 (R). THE SPEED SHOWN BELOW MUST NOT BE EXCEEDED:
 (The speed shown under heading of "Psgr." includes mail and express trains, and under heading of "Frt." includes mixed trains and light engines with or without cabooses.)

Location	Maximum Speed Miles Per Hour		Remarks
	Psg.	Frt.	
At any point.	60	35	
At any point.	50	35	With Mikado class engines with 63 inch drivers.
At any point.	45	35	With Mikado class engines with 57 inch drivers.
At any point.	45	35	With 2-10-2 class engines.
At any point.	35	35	With Consolidation class engines.
At any point.	35	35	Mallet engines.
At any point.	35		With C. M. St. P. & P. Class L engines.
At any point.	35		With C. M. St. P. & P. Class K 1 engines, equipped with swing motion trucks.
At any point.	25		With C. M. St. P. & P. Class K 1 engines, equipped with rigid trucks.
At any point.	35		With C. M. St. P. & P. freight engines with single trucks when handling or helping passenger trains.
At any point.	20	20	Engines backing up with or without cars.
At any point.		25	When handling steam derrick.
At any point.		20	Trains handling logs.
Through truss bridges.		6	Trains handling logs.
Within yard limits.	30	15	Speed must be as much slower as rules or conditions may require.
On sidings.	15	15	
Interlocking Plants.	15	15	
Railroad crossings at grade.	15	15	
On 5 and 6 degree curves.	40	30	

FIRST DIVISION

Location	Maximum Speed Miles Per Hour		Remarks
	Psg.	Frt.	
On 7 and 8 degree curves.	35	25	
On curves of 7 degrees and over.	25		With 2-10-2 class engines.
On 9 and 10 degree curves.	30	20	
The Dalles.	12	12	Over street crossings.
Crates.	45	35	Westward—over spring switch at end of double track.
Crates.	15	15	Eastward—over spring switch at end of double track.
Between Eagle Creek and Mile Post 42.5.	35	25	
Portland.	10	10	Over street crossings.
East Portland Hill.	20		With helper on rear of train.
East Portland.	15	15	Over frogs and crossings east end of Willamette River Bridge.
Tunnel between Peninsula Jct. and St. Johns Jct.	40	30	
Heppner Branch.	30	25	
Heppner Branch, between Heppner Jct. and M. P. 23.	35	35	
Condon Branch, between Arlington and M. P. 2.	25	20	
Between M. P. 2 and Condon.	25	25	
Between Rock Creek and Barnett.		15	On descending grades.
Between Mikkalo and Speece.		15	On descending grades.
Shaniko Branch.	30	25	
Between Biggs and Thornberry.	20	10	On descending grade.
Between Thornberry and Wasco.	30	20	On descending grade.
Between Sandon and Hay Canyon.	30	20	On descending grade.
Between Moro and M. P. 33.	30	20	On descending grade.
Between Sherman and North Junction.	35	30	
Between South Junction and Paxton.	30	25	
Between Paxton and Metolius.	40	30	
Between Madras and Metolius.	15	15	Over Willow Creek Viaduct.
Between Centralia and Hoquiam.	40	35	
Preacher's Slough.		6	On Rollways.
Blue Slough.		6	On Rollways.
Cosmopolis.	20	15	Within city limits.
Cosmopolis.		8	With logs within city limits.
Aberdeen.	20	20	Within city limits.
Aberdeen.	10	10	Over street crossings.
Primo Branch.	25	20	
Tono Branch.	35	25	
Olympia Branch.	35	25	

Note.—Figures on stake at beginning of curve indicate degree of curve.

152 (S). All trains must be under control through sidings, interlocking plants and yard limits. Under control means to be able to stop within one-half the distance track is seen to be clear.

201 (R). Unless otherwise directed, between Troutdale and Portland or Albina all freight trains will run via Kenton and all passenger trains will run via Graham.

221 (R). Lights will not be kept burning at night in the train order signals on branch lines when operators are not on duty, and trains will be governed by the day indication.

Trains will be governed by indication of train order signal and will not sound whistle signal as required by Rule 221(A) as follows:

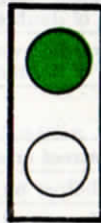
- Arlington —all trains;
- Hood River —all trains;
- Independence —all trains;
- Cosmopolis —all trains;
- Aberdeen —all eastward trains.

AUTOMATIC TRAIN CONTROL RULES COVERING AUTOMATIC TRAIN CONTROL OPERATION BETWEEN PORTLAND AND THE DALLES VIA GRAHAM

**Automatic Train Control Rules
Definition**

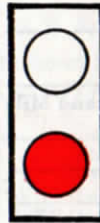
302. AUTOMATIC TRAIN CONTROL: A method of mechanically controlling train movements, independent of the engineman, should it become necessary.

CAB INDICATOR



**INDICATION—
PROCEED:**

302 (A).



**INDICATION—
STOP OR REDUCE SPEED.**

Enginemen and Trainmen

302 (B). Automatic train control cab indicators supplement automatic block signals in governing the use of blocks, and do not supersede the superiority of trains, nor dispense with the observance of rules governing the use of automatic block or interlocking signals or other signals whenever and wherever they may be required, except to the extent specifically authorized in Special Rule 302(G).

302 (C). The normal indication of automatic train control cab indicator is "Proceed."

302 (D). When the cab indicator shows red, engineman will acknowledge with acknowledging valve, and if speed is in excess of twenty (20) miles an hour, must immediately reduce speed to less than twenty (20) miles an hour.

302 (E). When cab indicator changes from green to red after having passed home block signal in "proceed" position, engineman must immediately reduce speed to six (6) miles an hour and not exceed that speed to the next signal in advance, expecting to find a train in the block, broken rail, obstruction, or switch not properly set.

302 (F). If cab indicator changes from green to red when within view of a distant block signal in advance, or after passing a distant block signal indicating "proceed", engineman will proceed at such speed below twenty (20) miles an hour as will enable him to stop before reaching the next home block signal in advance.

302 (G). When the speed of a train is restricted by automatic train control, or train is proceeding after having been stopped by automatic home block signal or automatic train control, if the cab indicator changes from red to green, the train may resume normal speed after engine has moved one train length beyond the point where the cab indicator changed from red to green.

302 (H). Within automatic train control territory, when moving over a track which is not equipped with automatic train control circuits, the train or engine must be kept below a speed of twenty (20) miles an hour.

302 (I). Trains entering automatic train control territory at Troutdale failing to receive green or red indication after passing off of cut-in circuit will pull down on the cut-out switch for thirty seconds and observe if black hand on duplex gauge starts downward. If cab indicator does not show a red indication or black hand on duplex gauge does not start downward when cut-out switch is down, automatic train control equipment on engine is inoperative and should be cut out. Train control must not be cut out until after consulting the train dispatcher.

302 (J). An engineman of a train entering a block as provided for by these rules, will be held responsible in case of accident caused by overtaking a preceding train. This does not relieve enginemen and trainmen from protecting their trains as required by the rules.

302 (K). When an engine is running backward, or is pushing cars, it must proceed at a speed less than twenty (20) miles an hour, to avoid an automatic brake application.

302 (L). If the indications of the cab indicator and the automatic block signal do not correspond, engineman must promptly report the fact to the train dispatcher from the first available point of communication, giving signal and engine number.

302 (M). When cab indicator displays continuous red indication passing two consecutive home block signals seen to be in proceed position, engineer may cut out pneumatic portion of the automatic train control equipment and proceed at normal speed, being governed by automatic block signals.

SPECIAL RULES

302 (N). At the first available telephone booth or telegraph office, engineer will consult with dispatcher to ascertain if dispatcher has knowledge as to trouble with train control circuit or track being blocked and if dispatcher has no knowledge as to track being blocked train may continue from that point at normal speed, being governed by automatic block signals.

302 (O). If after proceeding, cab indicator for a distance of five miles displays green indication continuously, engineer will cut in pneumatic equipment.

302 (P). When dispatcher has knowledge that train control power has failed he will so advise train and enginemen by train order; engineman will then cut out train control pneumatically. When cab indicator shows green, indicating that power is restored, engineman will cut in train control pneumatically, and notify trainmen at first opportunity.

302 (Q). Train control equipment on an engine is locked in cut-in position. In case train control equipment on engine fails, or track circuits become inoperative, pneumatic portion should be cut out.

302 (R). Station baggagemen at The Dalles Passenger Depot on engines run through The Dalles will unlock and cut out pneumatic portion of automatic train control equipment on eastward engines, and will cut in and lock pneumatic portion of automatic train control equipment on westward engines. After the equipment has been cut in, engineman will pull down on cut out switch in cab, and allow an automatic brake application. Enginemen will be held responsible for proper cutting in and cutting out of train control equipment.

GENERAL TRAIN CONTROL RULES

302 (S). Train control wires are located on top cross arm of automatic block signal pole line between Portland and The Dalles and carry a current of 2300 volts.

This current would be fatal to anyone coming in contact with it, and these wires must not be touched by persons or portable telephone and telegraph poles, nor by any other rods, tools or wires, etc., nor struck by booms of steam derricks, locomotive cranes, pile drivers, ditchers, etc.

De-energizing Line

302 (T). When employees are to perform any work where they are liable to come in contact with wires, or when necessary to perform work around or near train control wires with any machinery or appliances, which are liable to come in contact with them, Dispatcher must be notified. Dispatcher will then notify Signal Maintainer and before such work is started, Signal Maintainer must de-energize the portion of line where work is to be performed. Person in charge must not start such work until he has received written instructions from the signal maintainer that he has de-energized the line.

Re-energizing Line

302 (U). The Signal Maintainer, after de-energizing line as above, must not re-energize the line until he has received written statement from the person in charge of the work that no more work will be performed where employees, machinery or appliances are liable to come in contact with train control wires. Maintainer, after re-energizing line, will so advise dispatcher.

Trouble on Wires

302 (V). All employees are to report to the Train Dispatcher, as soon as possible, any unusual appearances or conditions of any of the wires or their supports, including collection of sleet on wires, so that any needed attention may be given without delay.

In case high voltage train control wires come in contact with, or are liable to come in contact with, cars or structures, have line de-energized by communicating with train dispatcher or any operator and a signal maintainer, pull wires clear of cars or structures, with pole or any other non-conductor device, and use Pyrene extinguisher if available to extinguish fire.

Employees are reminded that any wire or wires may become crossed with the high voltage wires and great care must be exercised to avoid coming in contact with any wires whatsoever which might cause a hazard.

The circuits are located between Portland and Troutdale with power feeding line at Mile Post 6 and between Troutdale and The Dalles with power feeding line at Hood River.

Operator at Hood River can have circuits between Troutdale and The Dalles de-energized. Towerman at East Portland can have circuits between Portland and Troutdale de-energized.

TRAIN STAFF SYSTEM GOVERNING MOVEMENT OF TRAINS BETWEEN ST. JOHNS JUNCTION AND PENINSULA JUNCTION

409 (A). St. Johns Junction and Peninsula Junction are staff stations.

409 (B). Advance staff signal on North Portland line is located 2000 feet from east portal of tunnel.

Advance staff signal on Kenton line is located 2000 feet from east portal of tunnel. Advance staff signal on Albina-Portland line is located 2050 feet west of St. Johns Junction staff station.

409 (C). The possession of a staff is authority for a train or engine to proceed regardless of opposing trains or engines, providing the semaphore signal at staff station indicates "proceed." Normal indication of semaphore signal at staff station is "stop."

409 (D). Advance staff signals will indicate whether or not staff is ready for delivery. Normal indication of these signals is "stop." Approaching advance staff signals engineers will call for signal indication by sounding four short blasts of whistle (Rule 14-j). When signal is changed from "stop" to "proceed," engineer will acknowledge same by sounding two short blasts of whistle (Rule 14-g) and may then proceed, obtaining staff at staff station. Trains or engines must not pass an advance staff signal or staff station semaphore indicating "stop," except by train order authority as provided in Special Rule 409 (R).

409 (E). Advance staff signal west of St. Johns Junction will govern movement of trains and engines approaching St. Johns Junction from the west on right-hand parallel track, and dwarf signal will govern on left-hand parallel track when authorized movements against current of traffic are made approaching St. Johns Junction.

409 (F). Approaching Peninsula Junction staff station from Barnes via "Wye 2" trains and engines will stop at established stop board and will not pass stop board until staff has been obtained from staff signalman at Peninsula Junction and staff station semaphore is changed to indicate "proceed."

409 (G). Engines approaching St. Johns Junction staff station from St. Johns industrial lead will stop at established stop board and not pass stop board for movement to Albina until proceed signal is received from signalman at St. Johns Junction staff station. For movement to Peninsula Junction Special Rule 409 (C) will govern, but engines must not pass stop board until staff has been obtained from staff signalman.

409 (H). Trains or engines on siding at St. Johns Junction or Peninsula Junction will not occupy or foul main track within staff limits until staff has been obtained.

409 (I). Delivery of the staff to the engineman will be either by staff crane, hand of block signalman or the conductor or head brakeman of his own train, and engineman must not accept delivery of the staff from any other person; signalman will not deliver staff to any other than these employees.

409 (J). When the staff has been obtained by the engineer he will announce the fact by sounding one short, one long and one short blast of the whistle (o — o).

409 (K). Signalmen will remain in view until the rear car has passed and will give proceed signal to trainmen to indicate that staff has been delivered to engineer.

409 (L). Engineer must either hand the staff to the signalman or throw it on the ground immediately in front of the staff station. A staff must not be transferred from one train or engine to another, but must be delivered to the signalman who will place it in the staff machine before delivery to another train or engine and must know that all of the train or cars clear the block before he inserts staff in the instrument.

409 (M). When two or more engines are coupled, the engineer of the leading engine will handle the staff but the engineer of the other engine or engines must know that engineer of leading engine has the staff before proceeding.

409 (N). In case a train parts or it is necessary to double, the staff must be retained by the engineer until rear portion of train is moving out of block.

409 (O). In case of delay to a train the staff must be surrendered upon request of signalman, which will cancel authority to proceed.

409 (P). Cars will not be shoved through the tunnel ahead of engine, except business cars equipped with headlight.

409 (Q). Headlights will be kept burning on all engines while between St. Johns Junction and Peninsula Junction both day and night.

409 (R). In case of failure of staff apparatus, trains and engines will be moved by 31 form of train order through the tunnel until apparatus has been repaired. This order must be given jointly to conductor and engineer of the train and signalmen at both ends of the block. Before issuing train orders substituting staff system, train dispatcher must ascertain that block is clear. In such event, a train order takes the place of the staff.

409 (S). If a train is held by staff signal to exceed ten minutes, the conductor must ascertain the cause.

509 (E). Relative to Rule 509 (B), the flagman must be sent ahead at night, even though the next signal in advance is in plain view and the track can be seen to be clear.

509 (F). When a train is stopped by a block signal at "stop" position, on double track when ready to proceed as per Rule 509 (C) and on single track when the flagman is not to be sent ahead as per Rule 509 (B), two long sounds of the engine whistle (14b) will be given before the train proceeds.

509 (R). Junction switch at Troutdale is electrically controlled from the depot by the Operator. Upper arm of Signal 157, located just east of junction switch, governs westward movement on The Dalles-Portland line and lower arm governs westward movement from The Dalles-Portland line to Kenton line. Clear indication of Signal 156 will authorize eastward trains from Kenton line to proceed to telegraph office without protecting against first class trains.

Sanders on engines must be kept closed while passing over this switch.

SPECIAL RULES

525. If a home block signal fails to indicate stop or a distant block signal fails to indicate caution when a block is entered, a member of the crew must be left at the signal, the train dispatcher must be notified from the first available point of communication and report must be sent to the Superintendent by wire. The employe left at the signal must stop and notify all trains moving in the direction governed by the signal and must remain there until relieved by an employe of the Signal Department or by official instructions.

674 (R). To indicate the route to be used through interlocking plants, the following engine and motor whistle signals will be used at East Portland:

- For Portland.....One long: —
- For Albina.....One long; one short: — o
- For Graham.....Two long: — —
- For S. P. Main Line.....One short; one long: o —
- For East Second St.....Two short; one long: o o —
- For S. P. Yard.....One short; one long; one short: o — o
- For Transfer Track.....One long; one short; one long: — o —
- For East Side Freight Terminal...Two short; two long: o o — —

720 (R). Passengers will not be carried on freight trains, except persons in charge of special freight, employes with annual passes, or employes with trip passes when traveling on company business, between stations at which the train stops.

802 (A). When one or more cars are being switched or pushed over a public crossing a man must go ahead of them, or must act as crossing watchman.

When a train has been opened to clear a public crossing a trainman must act as crossing watchman when a train or engine is passing on a siding or main track.

Where a crossing watchman is on duty trainmen must not give signal for highway traffic to come ahead.

802 (R). At 15th St., Tacoma, all trains and engines must stop and a member of the crew must be sent ahead to act as crossing watchman.

820 (R). Allowance for empty and underloaded cars as indicated below must be reported as required by Instruction 31 on Form 1216 "Conductor's Car and Tonnage Report."

	For each empty or loaded car weighing less than 40,000 lbs. (including light weight of car)	For each empty or loaded car weighing between 40,000 and 50,000 lbs. (including light weight of car)
Albina to Troutdale	6000	3000
East Portland to Graham	3000	
Bonneville to Cascade Locks	3000	
The Dalles to Seufert	6000	3000
Umatilla to Arlington	6000	3000
The Dalles to Dodson	6000	3000
Troutdale to Clarnie	6000	3000
Albina to Kalama	6000	3000
Kalama to Vader	6000	3000
Vader to Napavine	3000	
Centralia to Tacoma	6000	3000
Tacoma to Centralia	6000	3000
Centralia to Napavine	3000	
Napavine to Vancouver	6000	3000
Sherman to North Jct.	6000	3000
North Jct. to Bend	3000	
Biggs to Shaniko	3000	
Arlington to Condon	3000	
Heppner Jct. to Heppner	6000	3000
Hoquiam to Cosmopolis	3000	
Cosmopolis to Centralia	6000	3000
Cosmopolis to Primo	6000	3000
Primo to Cosmopolis	3000	
Centralia to Tono	6000	3000
Olympia to Chambers Prairie	6000	3000

826 (R). When employes, passengers, or others are injured, call the nearest Railroad Surgeon. If the persons injured are not employes, they should be sent to their homes or placed in charge of Local Relief Authorities, after immediate necessary attention has been given by the Railroad Surgeon.

When necessary to call Surgeons, other than those regularly employed by the Railroad, it should be with the distinct understanding that their services will not be required after arrival of the Railroad Surgeon.

Railroad Surgeons are located as shown below:

PLACE	NAME	TITLE
Portland.	Donald H. Jessop.	Chief Surgeon.
Portland.	M. K. Hall.	Assistant Chief Surgeon.
Portland.	Harry M. Bouvy.	Chief Oculist, Ear, Nose and Throat.
Portland.	John W. McCollom.	Eye, Ear, Nose and Throat.
Portland.	Archie C. Vancleve.	Assistant Surgeon.
Portland.	J. C. Ghormley & J. W. Brand	Assistant Surgeons.
Portland.	Courtland L. Booth	Assistant Surgeon.
Portland.	C. H. Bastron.	Assistant Surgeon.
Portland.	R. N. Jacobs.	Assistant Surgeon.
Vancouver.	J. B. Blair.	District Surgeon.
Hood River.	H. L. Dumble.	District Surgeon.
The Dalles.	Reuter, Thompson, Coberth, Griffith & Taylor.	District Surgeons.
The Dalles.	French & Young.	Eye, Ear, Nose and Throat.
Umatilla.	Alexander Reid.	District Surgeon.
Bend.	J. C. Vandever & G. V. Vandervert.	District Surgeons.
Grass Valley.	C. L. Poley.	District Surgeon.
Arlington.	J. W. Donnelly	District Surgeons.
Condon.	J. V. Wilhelm.	District Surgeon.
Heppner.	A. D. McMurdo.	District Surgeons.
Seattle.	Montgomery Rusell	Division Surgeon.
Seattle.	F. R. Underwood.	District Surgeon.
Seattle.	S. M. Samuels.	Oculist and Aurist.
Tacoma.	C. P. Gammon.	District Surgeon.
Centralia.	W. R. Scott.	District Surgeon.
Hoquiam.	H. C. Watkins.	District Surgeon.
Aberdeen.	I. R. Watkins.	District Surgeon.
Cosmopolis.	Dr. L. R. Lightfoot.	District Surgeon.
Olympia.	W. L. Bridgford.	District Surgeon.

850. A buffer car (not to be occupied by passengers) will be used on passenger trains between locomotive and cars occupied by passengers.

888. (A). While passing through cities and towns, there must be no failure to keep sharp lookout ahead on both sides of the engine. Firemen must do this in preference to other duties, except that they must keep the fire in such condition that there will be no loss of efficiency of the engine.

898. (A). Enginemen will give two long and two short sounds of engine or motor whistle when approaching a train which is stopped on opposite track on double track, and when approaching a train which is on a siding on single or double track. On double track special care must be taken to sound warning signals, and particularly when trains or engines are approaching highway crossings from opposite directions at the same time.

Work trains unloading ballast on double track, must stop when a train is passing on the opposite track.

899. Employes must inform themselves as to the location of all structures or obstructions where clearances are close, and must exercise care to avoid injury therefrom to themselves or others.

899 (R). Trainmen must not ride on the side of cars or engines while moving in trains on Bend and Shaniko Branches as there are a number of places on these branches where, on account of narrow cuts, there is impaired clearance.

977 White bands painted on telegraph or signal line poles indicate car length distance from switch of siding as follows: One band, 45 cars; two bands, 60 cars; three bands, 75 cars; four bands, 100 cars.

AIR BRAKES

1014 (A). Passenger, freight and mixed trains will carry 90 pounds brake pipe pressure on Shaniko and Condon Branches and passenger and mixed trains will carry 90 pounds brake pipe pressure on Bend branch.

1044 (B). Whenever helper engine on any train is either attached or detached rear end air test will be made in the manner prescribed in Rule 1044 (A) of Operating Rules governing Air Brakes effective December 1, 1925.

1044 (C). Road train brake test as prescribed in Rule 1044 (A) will be made on all freight and mixed trains before descending grade Barnett to Rock Creek, Grass Valley to Hay Canyon, Klondike to Hay Canyon, Thornberry to Biggs, and Madras to South Jct., and this test will also be made at intermediate points on these grades either ascending or descending, whenever engine is changed, cars picked up or set out, air hose parted, angle cock turned or train has been standing for thirty minutes or more.

1048 (B). On freight and passenger trains when undesired quick or emergency action of brakes has occurred on service reduction, thereafter, before starting service reductions, enginemen will place brake valve in release position for two seconds then in running position for one second then in service position for the reduction. This to insure all triple valves being in release position at the time service reduction starts thereby tending to avoid quick action of the brakes when making service reduction.

1050 (H). Locomotive and tender brakes on engines helping or pushing trains will be operated in conjunction with the train brake.

1051 (B). Running test as prescribed in Rules 1051 and 1051 (A) will be made before descending heavy grades as follows:

Fifth Subdivision, westward trains at Mile Post 6 east of Graham;

Bend Branch, westward trains at Mile Post 100;

Shaniko Branch, westward trains at Kent, Mile Post 34, Klondike and Wasco, and eastward trains at Sandon and Mile Post 35;

Condon Branch, westward trains at Speece, Mikkalo and Shutler.

1057 (R). A trainman must be stationed on rear of train with hand on air valve of tail hose ready to apply emergency brake if it becomes necessary at the following points:

Between Portland and East Portland —on all trains while passing over Willamette River Bridge;

Between Montesano and South Montesano—on passenger trains backing up.

1059 (B). Westward freight and mixed trains must stop and trainmen will inspect and adjust piston travel at Barnett, Grass Valley, Thornberry and Madras.

1060 (B). Trainmen must know condition of hand brakes on freight cars that have air brakes cut out.

1066 (B). Freight trains consisting of more than twenty-five cars will cut off engine to take coal or water when stop must be made on descending grade, or where there is more than one engine on the train. Trains under similar conditions will also cut off way cars before making spot.

1077 (B). Retaining valves will be used on descending grades as follows:

Shaniko Branch, on passenger trains Thornberry to Biggs, and on freight or mixed trains Mile Post 33 to Moro, Klondike to Biggs and Sandon to Hay Canyon, all retaining valves to be used;

Condon Branch, on all trains Mile Post 35 to Mikkalo, Barnett to Rock Creek and Mile Post 2 to Arlington, all retaining valves to be used.

Bend Branch, on freight and mixed trains on descending grades between Mile Post 100 and South Jct., one-half of all retaining valves to be used consecutively from engine back.

RATING OF LOCOMOTIVES IN FREIGHT SERVICE IN TONS OF 2000 POUNDS

MAIN LINE

Total weight of train exclusive of engine and tender, which the different classes of locomotives will haul in each direction between stations shown, under favorable weather conditions: (a deduction of ten (10) per cent may be made for time freight trains). Between stations for which no rating is shown maximum will apply.

CLASSIFICATION	ENGINE NUMBERS	PORTLAND AND THE DALLES									THE DALLES and UMATILLA				PORTLAND AND SEATTLE									
		EASTWARD					WESTWARD				EASTWARD		WESTWARD		EASTWARD						WESTWARD			
		Portland to Troutdale via Graham	Albina to Bonneville via Kenton	Bonneville to Cascade Locks	Cascade Locks to Sonny	Sonny to The Dalles	The Dalles to Dodson	Dodson to Albina via Kenton	Troutdale to Portland via Graham	The Dalles to Seufert	Seufert to Umatilla	Umatilla to Arlington	Arlington to The Dalles	Albina to Vader	Vader to Winlock	Winlock to Napavine	Napavine to Centralia	Centralia to Tenino	Tenino to Tacoma	Tacoma to Argo	Argo to Centralia	Centralia to Napavine	Napavine to Albina	
A. 81	20 106 28 107s	3500 to 3514	625	1660	1400	1445	1595	1400	2500	1295	1390	1645	1735	2115	1730	1060	815	2090	1670	2010	1670	1670	685	2090
F. 77	22 143s 28	3200 to 3203																						
P. 77	22 135s 28	3204 to 3207	795	2115	1800	1825	2040	1800	3185	1600	1730	2100	2220	2700	2200	1190	1035	2665	2125	2515	2125	2125	875	2665
P. 77	22 149s 28	3208 to 3217																						
T. 69	22 159 28 161s	1742 to 1754	890	2360	2000	2025	2265	2000	3555	1900	2010	2330	2460	3035	2460	1480	1155	2970	2375	2847	2375	2375	975	2970
T. 63	22 160 28 162s	1755 to 1760	975	2585	2000	2225	2475	2000	3895	1900	2200	2555	2690	3285	2690	1560	1265	3255	2600	3130	2600	2600	1070	3255
P. 77	25 167s 28	3218 to 3227	1030	2730	2100	2355	2625	2100	3185	2000	2320	2700	2850	3275	2845	1550	1340	3440	2745	3085	2745	2745	1130	3440
C. 57	22 187 30 190s	730 to 768	1150	3060	2600	2650	2940	2600	4610	2400	2650	3030	3200	3900	3185	1860	1500	3850	3080	3740	3080	3080	1265	3850
MK. 57	23 207s 30	2100 to 2102 2104 to 2137 2139 to 2146 2148, 2150, 2153 2155 to 2165	1340	3600	3200	3300	3500	3200	5375	2700	3050	4000	4000	5000	3710	2175	1965	4500	3585	4360	3585	3585	1650	4950
MK. 57	23 207 sdb 30	2103, 2138, 2147 2149, 2151, 2152 2154	1660	4420	3915	4030	4285	3915	6540	3310	3725	4890	4890	6120	4530	2670	2415	5520	4385	5310	4385	4385	2035	6050
TTT. 63	29 292 sdb 30 301 sdb	5400 to 5414	2195	5860	5190	5345	5680	5190	8675	4390	4940	6485	6485	8115	6005	3535	2975	7320	5815	7040	5815	5815	2690	8025

BRANCHES

CLASSIFICATION	ENGINE NUMBERS	CENTRALIA and HOQUIAM				CENTRALIA and TONO	COS-MOPOLIS and PRIMO	CHAMBERS PRAIRIE and OLYMPIA	SHERMAN and BEND					BIGGS and SHANIKO						ARLINGTON and CONDON				HEPPNER JCT. and HEPPNER					
		EASTWARD		WESTWARD					EASTWARD	EASTWARD	EASTWARD					EASTWARD						WESTWARD		EASTWARD					
		Hoquiam to Cos-mopolis	Cos-mopolis to Centralia	Centralia to Cos-mopolis	Cos-mopolis to Hoquiam						Sherman to North Jet.	North Jet. to South Jet.	South Jet. to Madras	Madras to Bend	Bend to Sherman	Biggs to Thornberry	Thornberry to Sandon	Sandon to Grass Valley	Grass Valley to Shaniko	Shaniko to Grass Valley	Grass Valley to Hay Canyon	Hay Canyon to Sandon	Arlington to Rock Creek	Rock Creek to Condon	Condon to Rock Creek	Rock Creek to Arlington	Heppner Jct. to Ione	Ione to Lexington	Lexington to Heppner
T. 63	20 113 24	1715 to 1726	625	1930	2245	695	1340	660	800	690	987	555	745	1580	180	290	415	370	815	500	370	315	180	980	890	810	625	590	
T. 57	20 119 26	1733 to 1736	740	2375	2765	855	1630	810	980	740	1120	685	920	1955	220	355	455	510	960	615	455	390	220	1210	1090	965	740	725	
T. 64	15 26 145 26	1730 to 1731	710	2275	2560	820	1590	775	885	830	1070	655	880	1870	210	340	435	490	855	590	435	370	210	1200	1045	900	710	695	
T. 57	20 125 26	1737 to 1741	710	2505	2920	905	1720	855	980	890	1180	720	970	2060	230	375	480	540	1030	650	480	420	240	1250	1155	1015	785	770	
T. 69	22 159 28 161	1742 to 1754	1020	2840	3310	1570	1865	970	1170	1075	1335	815	1100	2330	265	425	545	610	1175	740	540	465	260	1550	1310	1100	900	870	
T. 63	22 160 28 162s	1755 to 1760	1120	3110	3625	1650	1975	1060	1280	1160	1465	900	1200	2555	290	465	600	670	1120	810	595	510	285	1465	1430	1200	1000	950	
C. 57	20 167 30	{ 710, 715 718, 724 719 to 723	1490	2875	3355	1490	2200	985	1175	1350	1505	835	1350	2375	265	465	550	620	1305	750	550	480	275	1600	1330	1260	980	870	
C. 57	22 179 30	725 to 729	1325	3880	4290	1700	2520	1275	1515	1500	1730	1000	1500	3000	345	550	700	790	1460	960	700	600	340	1820	1700	1500	1150	1125	
C. 57	22 187 30 190s	730 to 768																											
MK. 57	23 207s 30	2100 to 2102 2104 to 2137 2139 to 2146 2148, 2150, 2153 2155 to 2165	1515	4490	4980	1960		1455																					
MK. 57	23 207 sdb 30	2103, 2138, 2147 2149, 2151, 2152 2154	1870	5465	6050	2405		1800																					

CLASS

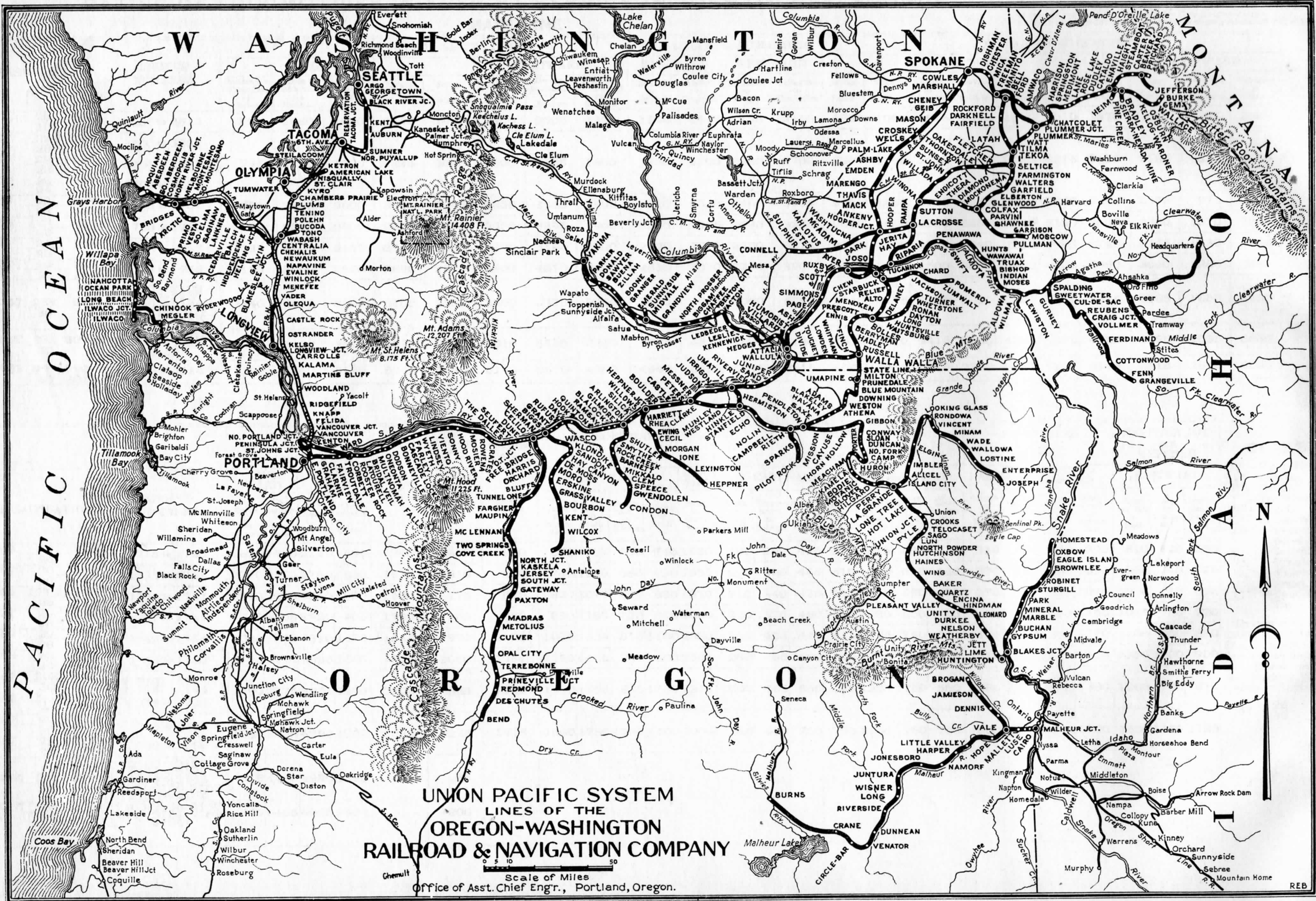
"E"—Eight Wheel.
 "A"—Atlantic.
 "P"—Pacific.
 "T"—Ten Wheel.
 "M"—Mogul.
 "C"—Consolidation.
 "TW"—Twelve Wheel.
 "S"—Switch.
 "MK"—Mikado.
 "MC"—Mallet Compound.
 "TTT"—Two-Ten-Two.

EXAMPLE: Consolidation engine having 57-inch drivers, Cylinders 22-inch diameter and 30-inch stroke, and weighing 187,000 pounds on Drivers:
 C. 57 $\frac{22}{30}$ 187



RAILROAD & NAVIGATION COMPANY
OREGON-WASHINGTON
LINES OF THE
UNION PACIFIC SYSTEM
Scale of Miles

PACIFIC OCEAN



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Scale of Miles
Office of Asst. Chief Engr., Portland, Oregon.