

UNION PACIFIC SYSTEM

OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY

First Division

EMPLOYEES' TIME-TABLE



To Take Effect Sunday, April 12, 1931

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

MILEAGE

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. 41—78 April 12, 1931	Distance from Portland	FIRST CLASS					SECOND CLASS		
251	255	79	17	11	5	19				20	12	18	6	80	256	252	254
Time Freight	Time Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Time Freight	Time Freight	Time Freight			
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily	Arrive Daily			
	5.00AM		7.15PM		6.05PM	3.05AM	0.0	389.5	11.35PM		9.10AM	11.05AM		12.05AM	12.45PM		
	10.45AM		10.40PM		9.05PM	6.50AM	99.5	290.0	7.50PM		6.00AM	7.40AM		2.30PM	4.00AM		
			12.01AM	1.37AM		11.50PM	173.8	215.7	4.40PM		3.00AM	4.45AM	4.35AM				
	6.00PM						177.5	212.0						7.00AM	5.00PM		
1.00PM			1.20AM		2.45AM		215.8	183.0		1.50AM		3.20AM		10.30AM			
8.00PM	1.45AM			5.15AM	5.00AM	3.45AM	305.3	84.2	12.40PM	11.35PM	11.50PM	12.20AM		9.55PM	2.15AM		
				7.45AM	7.35AM	6.10AM	389.5	0.0	9.40AM	9.15PM	9.30PM	10.00PM		5.45PM	9.30PM		
5.00AM	8.15AM						394.3	1.6						10.30PM			
Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		
(16.00) 11.7	(27.15) 14.5		(1.19) 31.9	(12.30) 31.2	(4.50) 37.9	(12.05) 32.2	(14.25) 27.0 Thru Time.....	(13.55) 28.0	(4.35) 39.9	(11.40) 33.4	(13.05) 29.8	(1.15) 33.6	(30.20) 13.0	(13.00) 14.4	(38.15) 10.9	
							 Average Speed per Hour.....									

EASTWARD

Seattle and Portland

WESTWARD

SECOND CLASS		FIRST CLASS					Distance from Seattle	Time-Table No. 78 April 12, 1931	Distance from Portland	FIRST CLASS						SECOND CLASS		
692	Time Freight	34	42	40	38	564				562	691	Time Freight	561	563	37	39	41	33	Time Freight
Leave Daily	Leave Daily	CMSt.P&P Passenger (16)	CMSt.P&P Passenger (7)	CMSt.P&P Passenger (18)	CMSt.P&P Passenger (15)	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	CMSt.P&P Passenger (15)	CMSt.P&P Passenger (18)	CMSt.P&P Passenger (7)	CMSt.P&P Passenger (16)	Passenger		
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
	6.25PM		9.45PM	6.40PM	10.15AM	8.15AM	11.15PM	12.01PM	0.0	183.2	4.45PM	6.30AM	8.00AM	10.00AM	6.25PM	9.15PM		
	8.40PM		9.54PM	6.49PM	10.24AM	8.24AM			3.1	180.1			7.51AM	9.51AM	6.16PM	9.06PM	6.45AM	
	12.05AM						12.40AM	1.17PM	38.1	145.1	3.29PM	5.00AM						5.00AM
	7.35AM						2.55AM	2.50PM	92.1	91.1	1.58PM	2.30AM						12.30AM
									181.6	1.6								7.30PM
							6.15AM	5.45PM	183.2	0.0	11.15AM	11.15PM						Leave Daily
Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
(13.10) 13.6		(0.09) 20.7	(0.09) 20.7	(0.09) 20.7	(0.09) 20.7	(7.00) 26.2	(5.44) 32.0	..... Thru Time.....	(5.30) 33.3	(7.15) 25.3	(0.09) 20.7	(0.09) 20.7	(0.09) 20.7	(0.09) 20.7	(0.09) 20.7	(0.09) 20.7	(11.15) 15.9	
								..... Average Speed per Hour.....										

WESTWARD

Spokane—Umatilla—Pendleton

EASTWARD

SECOND CLASS		FIRST CLASS					Distance from Spokane	Time-Table No. 44 April 5, 1931	Distance from Pendleton— Umatilla	FIRST CLASS					SECOND CLASS	
251	Time Freight	45	75	73	11	77				12	76	74	78	46	252	Time Freight
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			
	10.25PM				9.45PM	7.25AM	0.0	251.4	7.00AM		7.10PM		12.30AM			
					7.00PM		116.1	185.9			8.45AM					
					10.35PM	10.20PM	147.8	103.6			5.15AM	5.25AM	1.50PM			
	2.55AM				11.15PM	12.15AM	103.9	80.6	4.15AM	4.35AM			4.00PM			
	7.45AM				3.35AM	2.35AM	157.2	27.3	2.55AM	3.10AM			12.01PM			
	9.15AM				3.15AM	2.45AM	184.5	0.0	1.50AM	1.30AM			10.30AM			
							156.5	94.9								
							204.6	46.8								
							251.4	0.0								
Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			
(10.50) 16.9		(1.30) 20.7	(4.40) 21.0	(3.20) 26.4	(5.00) 36.9	(9.10) 27.4	..... Thru Time.....	(5.10) 35.7	(3.45) 26.1	(3.20) 26.4	(9.15) 27.2	(1.10) 26.7	(14.00) 13.1		
							..... Average Speed per Hour.....								

WESTWARD

FOURTH SUBDIVISION

SECOND CLASS

FIRST CLASS

Length of sidings in feet and location of water, fuel, in-terlocking plants, turning stations, scales and tele-phones.	SECOND CLASS		FIRST CLASS						Distance from Huntington		
			251	255	19	29	27	17		11	5
			Time Freight	Time Freight	Passenger	Passenger	Passenger	Passenger		Passenger	Passenger
WFTYP			1.00PM						2.45AM	215.8	
3,110 P			1.12						2.51	220.0	
3,200 P			1.22					f 2.56	223.2		
3,200 P			1.34					3.01	226.9		
6,218 WFYP			1.50	7.45PM	s 11.40AM			3.20AM	3.10	1.20AM	223.9
650			1.55	7.52	f 11.43			3.23	3.13	1.23	225.7
4,900 P			2.00	7.58	11.47			3.26	3.16	1.30	227.5
4,904 P			2.10	8.06	11.52AM			3.30	3.20	1.36	231.4
5,190 P			2.30	8.20	12.01PM			3.36	3.26	1.43	237.2
824 TP			2.45	8.30	12.07			3.41	3.31	s 1.48	241.2
5,001 P			2.50	8.35	12.10			3.44	3.33	1.50	242.7
4,924 P			3.10	8.50	12.17			3.52	3.40	1.58	247.1
WB 6,296 WTP EB 5,906			3.30	9.05	s 12.27			s 3.58	s 3.46	s 2.10	251.7
4,940 P			3.45	9.20	12.32			4.03	3.51	2.17	255.4
4,946 WP			4.00	9.35	f 12.40			4.08	3.56	2.23	259.9
4,917 P			4.14	9.50	12.46			4.13	4.01	2.28	263.9
4,892 P			4.25	10.00	12.50			4.16	4.04	2.32	266.3
5,000 P			4.40	10.15	12.58			4.21	4.09	2.38	270.6
4,947 P			4.56	10.35	1.04			4.26	4.14	2.45	274.6
5,165 WP			5.06	10.56	1.08			4.29	4.17	2.49	277.4
5,000 P			5.16	11.05	f 1.15			4.32	4.20	2.53	280.1
4,926 P			5.26	11.14	1.21			4.35	4.23	2.57	282.7
6,556 YP			5.40	11.24	1.27			4.39	4.27	s 3.01	285.6
752 WP			5.48	11.30	s 1.31	1.10PM	1.10PM	4.42	4.30	3.04	287.7
2,750			5.56	11.35	1.33	f 1.12	f 1.12	4.45	4.32	3.06	289.2
2,625			6.14	11.45	1.39	f 1.20	f 1.20	4.50	4.36	3.13	293.1
											293.5
			6.18	11.53PM	1.41	1.22	1.22	4.52	4.38	3.15	294.3
Spur											296.0
3,678			6.35	12.05AM	1.46	1.29	1.29	4.57	4.42	3.20	297.8
											300.9
Spur			6.45	12.15	1.52	1.37	1.37	5.02	4.47	3.27	301.8
WFTOP			6.55PM	12.25AM	2.00PM	1.45PM	1.45PM	5.10AM	4.55AM	3.35AM	305.3
			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Sun.	Arrive Daily	Arrive Daily	Arrive Daily	

Time-Table No. 78
April 12, 1931

STATIONS

DN-R	UMATILLA	Ce
	4.2	
	BAILEY	
	3.2	
D	IRRIGON	
	3.7	
	JUDSON	
	6.3	
DN-R	MESSNER	Fc
	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	
	2.9	
DN	BIGGS	Bx
	2.1	
D	AINSWORTH	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)	

W. B.—Westward Siding.
E. B.—Eastward Siding.

(5.55) (4.40)
16.7 17.4

(2.20) (0.35) (0.35) (1.50) (2.10) (2.15)
34.9 30.2 30.2 44.4 45.6 36.2

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

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 telephones.	SECOND CLASS				FIRST CLASS						Distance from Huntington
	251	978	692	255	562	19	17	11	5	564	
	Time Freight	Way Freight	Time Freight	Time Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	
	Leave Daily	Leave Daily Ex. Sun.	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
WFTOP	8.00PM			1.45AM							305.3
P	8.20			2.01							307.8
3,309 P	8.40			2.23							313.4
3,165 P	8.54			2.35							317.0
3,250 P	9.06			2.50							320.3
WB 3,820 EB 5,350 WP	9.27			3.10							326.3
4,040 P	9.42			3.25							330.4
3,255 P	9.48			3.30							332.0
4,900 P	10.10			3.45							336.6
5,110 WP	10.24 10.44			3.58							339.8
4,900 P	11.09			4.10							342.7
4,900 FP	11.35PM			4.25							346.6
											349.4
WB 3,537 EB 3,246 WTP	12.13AM			4.45							350.8
Spur											353.7
3,315 P	12.45			5.09							355.4
3,108 P	1.05			5.20							358.1
											359.9
3,479 OP	1.45			5.38							363.2
											365.6
4,900 P	2.15			5.50							367.1
1,040											369.1
3,050 P	2.40			6.00							370.4
5,979 WTP	3.10			6.15							373.9
2,700 P											376.3
2,720 P											381.8
1,500 P											385.1
1,058											387.6
											378.9
3,215 P	3.40			6.35							381.7
347											383.6
3,315 P	4.00			7.00							385.6
311											389.1
3,402	4.20			7.25							390.3
1,415 YP	4.30			7.42							390.3
IP											291.5
											390.3
1,415 YP		12.15PM	6.55AM								5.22PM
		12.23	7.03								5.25
1,415 YP	4.30	12.23	7.03	7.42							5.25
P	4.40	12.35	7.15	7.55							5.29
P	4.50	12.45	7.25	8.05							5.32
WFTYOP	5.00AM	12.55PM	7.35AM	8.15AM							5.36
											5.40
IP											5.25
											7.40
											7.30
											6.05
											6.10
											388.9
											389.2
											5.45PM
											5.30PM
											7.45AM
											7.35AM
											6.10AM
											6.15AM
	Arrive Daily	Arrive Daily Ex. Sun.	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	389.5

Time-Table No. 78
April 12, 1931

STATIONS

DN-R	THE DALLES	Dk-Wh	2.5
	CRATES		5.6
	ROWENA		3.6
	CHATFIELD		3.3
D	MOSIER	H	6.0
DN	HOOD RIVER	Ki	4.1
	MENO		1.6
	SONNY		4.6
	LINDSEY		3.2
	WYETH		2.9
	FARLEY		3.9
D	CASCADE LOCKS	Cj	2.8
	EAGLE CREEK		1.4
D	BONNEVILLE	Mu	2.9
	WARRENDALE		1.7
	DODSON		2.7
	ONEONTA		1.8
	MULTNOMAH FALLS		3.3
D	BRIDAL VEIL	Ju	2.4
	LATOURELL		1.5
	ROOSTER ROCK		2.0
	CORBETT		1.3
	TAYLOR		3.5
DN	TROUTDALE	Sn	2.4
	FAIRVIEW	Fa	5.5
	CLARNIE		3.3
	GRAHAM		2.5
	BRUUN		1.3
	HEMLOCK		2.8
	WARD		1.9
	FIR		2.0
	ADAMSBORO		3.5
	KENTON		1.2
	PENINSULA JCT.		1.2
DN	NORTH PORTLAND JCT.	ED	1.2
	PENINSULA JCT.		1.5
	ST. JOHNS JCT.		1.2
	MILLROAD		1.3
DN-R	ALBINA	B	0.1
	HARDING ST.		0.9
	EAST PORTLAND		0.3
	UNITED RY. CROSSING		0.3
DN-R	PORTLAND	Diapr. P-So-V	0.3

W. B.—Westward Siding. E. B.—Eastward Siding. (9.00) (0.40) (0.40) (6.30) (0.23) (3.15) (2.30) (2.35) (2.25) (0.33) Thru Time
9.9 7.8 7.8 13.7 17.7 25.9 33.7 32.6 34.8 12.4 Average Speed per Hour

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. 78

April 12, 1931

Distance from
Portland

FIRST CLASS

SECOND CLASS

STATIONS	Distance from Portland	FIRST CLASS						SECOND CLASS				
		20 Passenger	561 Passenger	12 Passenger	18 Passenger	6 Passenger	563 Passenger	977 Way Freight	691 Time Freight	256 Time Freight	252 Time Freight	254 Time Freight
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sun.	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
DN-R THE DALLES Dk-Wh	84.2	12.30PM		11.30PM	11.45PM	12.15AM				9.35PM	1.30AM	2.20AM
CRATES	81.7	12.23		11.23	11.38	12.08AM			9.16	1.11	2.01	
ROWENA	76.1	12.14		11.12	11.27	11.57PM			9.05	12.57	1.47	
CHATFIELD	72.5	12.06		11.05	11.20	11.50			8.54	12.49	1.39	
D MOSIER H	69.2	12.01PM		11.00	11.15	11.45			8.46	12.41	1.31	
DN HOOD RIVER Ki	63.2	11.50AM		10.50	11.05	11.35			8.30	12.25	1.15	
MENO	59.1	11.42		10.43	10.58	11.28			8.16	12.11	1.01	
SONNY	57.5	11.39		10.41	10.56	11.26			8.12	12.07AM	12.57	
LINDSEY	52.9	11.31		10.34	10.49	11.19			8.01	11.56PM	12.46	
WYETH	49.7	11.25		10.29	10.44	11.14			7.55	11.50	12.40	
FARLEY	46.8	11.20		10.24	10.39	11.09			7.48	11.43	12.33	
D CASCADE LOCKS Cj	42.9	11.13		10.18	10.33	11.03			7.40	11.35	12.25	
EAGLE CREEK	40.1											
D BONNEVILLE Mu	38.7	11.03		10.11	10.26	10.56			7.28	11.23	12.13	
WARRENDALE	35.8											
DODSON	34.1	10.54		10.04	10.19	10.49			7.19	11.14	12.04AM	
ONEONTA	31.4	10.48		10.00	10.15	10.45			7.14	11.09	11.59PM	
MULTNOMAH FALLS	29.6											
D BRIDAL VEIL Ju	26.3	10.38		9.54	10.09	10.39			7.05	11.00	11.50	
LATOURELL	23.9											
ROOSTER ROCK	22.4	10.30		9.49	10.04	10.34			6.58	10.53	11.43	
CORBETT	20.4											
TAYLOR	19.1	10.23		9.45	10.00	10.30			6.52	10.47	11.37	
DN TROUTDALE Sn	15.6	10.16		9.41	9.56	10.26			6.45	10.40	11.30	
FAIRVIEW Fa	13.2	10.11		9.37	9.52	10.22						
CLARNIE	7.7	10.00		9.31	9.46	10.16			VIA KENTON	VIA KENTON	VIA KENTON	
GRAHAM	4.4	9.53		9.27	9.42	10.12						
BRUUN	1.9	9.47		9.22	9.37	10.07						
HEMLOCK	17.0									6.27	10.12	11.12
WARD	14.2											
FIR	12.3									6.17	10.02	11.02
ADAMSBORO	10.3											
KENTON	6.8									6.05	9.50	10.50
PENINSULA JCT.	5.6									6.00	9.45	10.45
DN NORTH PORTLAND JCT. ID	6.8	VIA GRAHAM		VIA GRAHAM	VIA GRAHAM	VIA GRAHAM			6.50AM	8.00PM		
PENINSULA JCT.	5.6								6.45	7.55		
PENINSULA JCT.	5.6								6.45	7.55	6.00	9.45
ST. JOHNS JCT.	4.1								6.40	7.50	5.55	9.40
MILLROAD	2.9								6.30	7.40	5.50	9.35
DN-R ALBINA B	1.6								6.20AM	7.30PM	5.45PM	9.30PM
HARDING ST.	1.5											
EAST PORTLAND	0.6	9.43	11.18	9.18	9.33	10.03	11.18					
UNITED RY. CROSSING	0.3											
DN-R PORTLAND Dispr. X P-So-Vc	0.0	9.40AM	11.15AM	9.15PM	9.30PM	10.00PM	11.15PM					
(84.2)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		Leave Daily Ex. Sun.	Leave Daily	Leave Daily	Leave Daily

Thru Time.....	(2.50)	(0.20)	(2.15)	(2.15)	(2.15)	(0.23)		(0.30)	(0.30)	(3.50)	(4.00)	(3.50)
Average Speed per Hour.....	29.7	21.6	37.4	37.4	37.4	17.7		10.4	10.4	23.2	22.2	23.2

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.

EASTWARD

SIXTH SUBDIVISION

Length of sidings in feet and location of water, fuel, freighting, turning, stables and telephones.	SECOND CLASS				FIRST CLASS						Distance from Seattle	Time-Table No. 78					
	978		692		564		34		42			562		40		38	
	Way Freight	Time Freight	Passenger	CMSt.P&P Passenger (18)	Passenger	CMSt.P&P Passenger (7)	Passenger	CMSt.P&P Passenger (18)	Passenger	CMSt.P&P Passenger (15)		Passenger	CMSt.P&P Passenger (18)	Passenger	CMSt.P&P Passenger (15)	STATIONS	
	Leave Daily Ex. Sun.	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	0.0	DN-R	SEATTLE	Ow
P														1.9		G. N. CROSSING	
														1.9		N. P. CROSSING	
WFITYOP		6.25PM												3.1	DN-R	ARGO	G
I																C.M.St.P.&P.C.CROSSING	
1,354		6.45PM												9.4	DN-R	BLACK RIVER	Bi
1,401																	

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

P														35.7	DN	TACOMA JCT.	Jn
I		8.20PM												36.4	DN	RESERVATION	Rn
		8.30PM												36.5		N. P. CROSSING	
														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.

IP														176.4		NORTH PORTLAND JCT.	
1,415	YP													177.6		PENINSULA JCT.	
	P													179.1		ST. JOHNS JCT.	
	P													180.3		MILLROAD	
	P													181.6		ALBINA	
	P													181.7		HARDING ST.	
	IP													182.6		EAST PORTLAND	
	IP													182.9		UNITED RY. CROSSING	
														183.2		PORTLAND	

(0.40) (13.10) (7.00) (0.09) (0.09) (5.44) (0.09) (0.09) Thru T
7.8 13.6 26.2 20.7 20.7 32.0 20.7 20.7 Average Speed per H

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

WESTWARD

Time Table No. 78

April 12, 1931

STATIONS	Distance from Portland	FIRST CLASS						SECOND CLASS	
		563	37	39	561	41	33	691	977
		Passenger	CMSt.P&P Passenger (15)	CMSt.P&P Passenger (18)	Passenger	CMSt.P&P Passenger (7)	CMSt.P&P Passenger (16)	Time Freight	Way Freight
DN-R SEATTLE 1.0 Ow	183.2	6.30AM	8.00AM	10.00AM	4.45PM	6.25PM	9.15PM		
G. N. CROSSING 0	181.3								
N. P. CROSSING 1.2	181.3								
DN-R ARGO 0.3 G	180.1	6.20	7.51AM	9.51AM	4.36	6.16PM	9.06PM	6.45AM	
C.M.St.P.&P.&P.C. CROSSING 0.0									
DN-R BLACK RIVER 0.0 B ₁	173.8	6.00AM			4.23PM			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.

DN TACOMA JCT. 0.7 J _n	147.5	5.11AM			3.39PM					5.15AM	
DN RESERVATION 0.1 R _n	146.8	5.06AM			3.34PM					5.10AM	
N. P. CROSSING 0.2	146.7										
N. P. CROSSING 0.0	146.5										
N. P. CROSSING 0.1	146.5										
N. P. CROSSING 0.1	146.4										
N. P. CROSSING 1.2	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.

NORTH PORTLAND JCT. 1.2	6.8	11.38PM			11.35AM					8.00PM	6.50AM
PENINSULA JCT. 1.5	5.6										
ST. JOHNS JCT. 1.2	4.1										
MILLROAD 1.3	2.9										
ALBINA 0.1	1.6								7.30PM	6.20AM	
HARDING ST. 0.9	1.5										
EAST PORTLAND 0.3	0.6										
UNITED RY. CROSSING 0.3	0.3										
PORTLAND (183.2)	0.0	11.15PM			11.15AM						
		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			Leave Daily	Leave Daily Ex. Sun.

Thru Time.....	(7.15)	(0.09)	(0.09)	(5.30)	(0.09)	(0.09)				(11.15)	(0.30)
Average Speed per Hour.....	25.3	20.7	20.7	33.3	20.7	20.7				15.9	10.0

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 water, fuel, interlocking plants, turning stations, scales and telephones.	SECOND CLASS		FIRST CLASS			Distance from Bend	Time-Table No. 78		Distance from Ainsworth	FIRST CLASS		SECOND CLASS			
	313	311	103	29	27		April 12, 1931			30	102	310	314		
	Time Freight	O. T. Ry. Through Freight	O. T. Ry. Mixed	Passenger	Passenger		STATIONS			Passenger	O. T. Ry. Mixed	O. T. Ry. Through Freight	Time Freight		
	Leave Daily Ex. Mon.	Leave Daily Ex. Mon.	Leave Daily	Leave Daily Ex. Sun.	Leave Sun.		Arrive Daily	Arrive Daily		Arrive Daily Ex. Mon.	Arrive Daily Ex. Mon.	Arrive Daily Ex. Mon.	Arrive Daily Ex. Mon.		
WYO	1.15AM			7.45AM	6.25AM	0.0	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 OREGON TRUNK RAILWAY															
WFYT	3.50AM	3.05AM	10.45PM	9.05AM	8.15AM	41.3	DN-R METOLIUS Ms	106.0	5.50PM	5.40AM	4.55AM	3.50AM			
291						43.8	AGENCY	103.5							
2,680 W	4.25	3.30	11.00	9.15	8.30	46.2	D MADRAS Md	101.1	5.35	5.15	4.25	3.30			
2,480	4.55	4.05	11.15	9.25	8.45	51.9	PAXTON	95.4	5.20	4.55	4.05	3.15			
2,000 W	5.15	4.40	11.30	9.40	9.00	57.4	D GATEWAY Gw	89.9	5.05	4.40	3.40	3.00			
1,280 WFP	5.40AM	5.10AM	11.52PM	10.00AM	9.20AM	65.6	R SOUTH JCT.	81.7	4.45PM	4.15AM	3.15AM	2.35AM			
BETWEEN NORTH JUNCTION AND SOUTH JUNCTION TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF OREGON TRUNK RAILWAY															
P	6.10AM		10.25AM	9.45AM		76.0	D-R NORTH JCT. Jn	71.3	4.25PM			2.05AM			
1,100	6.15		10.27	9.50		77.1	COVE CREEK	70.2	4.20			2.00			
1,160	6.22		10.34	9.57		80.0	TWO SPRINGS	67.4	4.15			1.52			
475 P	6.45		10.52	10.17		88.1	McLENNAN	59.2	3.55			1.32			
1,150 WP	7.05		11.10	10.36		96.1	D MAUPIN Hf	51.2	3.40			1.12			
						100.3	OAK SPRINGS	47.0							
	7.30		11.29	11.00		104.5	SHERARS BRIDGE	42.8	3.18			12.46			
1,290 WP	7.35		11.31	11.05		105.1	FARGHER	42.2	3.15			12.43			
1,200	8.05		11.51AM	11.35		115.5	TUNNEL ONE	31.8	2.50			12.13AM			
						120.3	KETCHUM	27.0							
1,160 P	8.20		12.05PM	11.50AM		121.1	BLUFFS	26.2	2.35			11.55PM			
2,650 W	8.55		12.29	12.25PM		133.0	MAYS	14.3	2.05			11.22			
						134.2	HARRIS	13.1							
310	9.10		12.37	12.40		137.4	FREE BRIDGE	9.9	1.55			11.10			
WY	9.40AM		1.10PM	1.10PM		147.3	D-R AINSWORTH Vc	0.0	1.40PM			10.40PM			
	Arrive Daily Ex. Mon.	Arrive Daily Ex. Mon.	Arrive Daily	Arrive Daily Ex. Sun.	Arrive Sun.		(147.3)		Leave Daily	Leave Daily	Leave Daily Ex. Mon.	Leave Daily Ex. Sun.			

(8.25) (2.05) (1.07) (5.25) (6.45) Thru Time (5.45) (1.25) (1.40) (7.30)
 17.5 11.7 21.8 27.2 21.8 Average Speed per Hour 25.6 17.2 14.6 19.6

Time shown at Bend is for information only. At Bend trains will be governed by time-table, rules and regulations of Oregon Trunk Ry.
 Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

		WESTWARD					CONDON BRANCH			EASTWARD				
Length of sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and telephones.	SECOND CLASS		FIRST CLASS			Distance from Condon	Time-Table No. 78		Distance from Arlington	SECOND CLASS		SECOND CLASS		
	117	127	107	April 12, 1931			108	128						
	Mixed	Mixed	Mixed	STATIONS			Mixed	Mixed						
	Leave Sun.	Leave Daily Ex. Sat. & Sun.	Leave Sat.	Arrive Mon.	Arrive Daily Ex. Mon.		Arrive Mon.	Arrive Daily Ex. Mon.						
5,260 WFP	10.30PM	9.45PM	8.30PM	0.0	DN-R CONDON Cd	44.5	6.55AM	6.55AM						
1,278	10.50	10.10	8.50	8.2	GWENDOLEN	36.3	6.15	6.15						
1,515	11.05	10.25	9.05	12.2	SPEECE	32.3	6.00	6.00						
1,533	11.20	10.40	9.20	15.9	CLEM	28.6	5.41	5.41						
1,515 W	11.40	11.10	9.40	20.1	MIKKALO	24.4	5.20	5.20						
1,400	11.59PM	11.35	10.05	24.8	BARNETT	19.7	5.00	5.00						
662 W	12.25AM	11.59PM	10.30	28.5	ROCK CREEK	16.0	4.41	4.41						
122				30.8	SMYTHE	13.7								
1,504	12.50	12.30AM	11.00	37.2	SHUTLER	7.3	4.15	4.15						
6,920 WFP	1.15AM	1.15AM	11.30PM	44.5	DN-R ARLINGTON Mx	0.0	3.50AM	3.50AM						
	Arrive Mon.	Arrive Daily Ex. Sun. and Mon.	Arrive Sat.		(44.5)		Leave Mon.	Leave Daily Ex. Mon.						

(2.45) (3.30) (3.00) Thru Time 3.05 (3.05)
 16.2 12.7 14.8 Average Speed per Hour 14.4 14.4

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

		WESTWARD					SHANIKO BRANCH			EASTWARD				
Length of sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and telephones.	SECOND CLASS		FIRST CLASS			Distance from Shaniko	Time-Table No. 78		Distance from Biggs	SECOND CLASS		SECOND CLASS		
	125	123	105	April 12, 1931			106	124		126				
	Mixed	Mixed	Passenger	STATIONS			Passenger	Mixed		Mixed				
	Leave Tues., Thurs. & Sat.	Leave Mon., Wed. & Fri.	Leave Sun.	Arrive Mon.	Arrive Sun., Thurs. & Sat.		Arrive Mon.	Arrive Sun., Wed. & Fri.		Arrive Tues., Thurs. & Sat.				
3,385 WFP	7.45PM			0.0	D-R SHANIKO Sh	69.7			7.35AM					
345				6.7	KELSEY	63.0								
620	8.20			12.6	WILCOX	57.1			6.55					
902	8.35			17.2	KENT	52.5			6.40					
650	8.55			23.9	BOURBON	45.8			6.30					
1,370 WT	9.15	9.15PM	9.15PM	31.2	D-R GRASS VALLEY Vy	38.5	6.00AM	6.00AM	6.00					
Spur	9.40	9.40	9.40	38.4	ERSKINE	31.3	5.25	5.25	5.25					
2,422 W	10.00	10.00	10.00	42.7	D MORO Mr	27.0	5.05	5.05	5.05					
834	10.15	10.15	10.15	45.8	DE MOSS	23.9	4.50	4.50	4.50					
Spur	10.30	10.30	10.30	49.7	NISH	20.0	4.35	4.35	4.35					
Spur	10.35	10.35	10.35	50.5	HAY CANYON	19.2	4.30	4.30	4.30					
Spur	10.50	10.50	10.50	54.1	SANDON	15.6	4.15	4.15	4.15					
1,010	11.00	11.00	11.00	55.5	KLONDIKE	14.2	4.10	4.10	4.10					
1,758 W	11.30	11.30	11.30	60.0	D WASCO Wa	9.7	3.45	3.45	3.45					
Spur	11.55PM	11.55PM	11.55PM	62.6	SINK	7.1	3.35	3.35	3.35					
565	12.05AM	12.05AM	12.05AM	64.5	THORNBERRY	5.2	3.25	3.25	3.25					
6,650 WFP	12.35AM	12.35AM	12.35AM	69.7	DN-R BIGGS Bx	0.0	3.05AM	3.05AM	3.05AM					
	Arrive Wed., Fri. & Sun.	Arrive Tues., Thurs. & Sat.	Arrive Mon.		(69.7)		Leave Mon.	Leave Sun., Wed. & Fri.	Leave Tues., Thurs. & Sat.					
	(4.50) 14.4	(3.20) 11.5	(3.20) 11.5		Thru Time		(2.55) 13.2	(2.55) 13.2	(4.30) 15.5					
					Average Speed per Hour									

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

		WESTWARD					HEPPNER BRANCH			EASTWARD				
Length of sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and telephones.	SECOND CLASS		FIRST CLASS			Distance from Heppner	Time-Table No. 78		Distance from Heppner Jct.	SECOND CLASS		SECOND CLASS		
	109	129	119	April 12, 1931			110	130						
	Passenger	Mixed	Mixed	STATIONS			Passenger	Mixed						
	Leave Sun.	Leave Daily Ex. Sat. & Sun.	Leave Sat.	Arrive Mon.	Arrive Daily Ex. Mon.		Arrive Mon.	Arrive Daily Ex. Mon.						
2,867 WFTY	11.30PM	10.00PM	8.40PM	0.0	D-R HEPPNER Hr	45.2	5.40AM	5.40AM						
1,029	11.50PM	10.30	9.00	8.9	LEXINGTON	36.3	5.10	5.10						
471 P	12.05AM	10.45	9.15	14.2	JORDAN	31.0	4.55	4.55						
1,150 W	12.15	11.20	9.30	16.9	IONE On	28.3	4.45	4.45						
132	12.25	11.35	9.45	20.0	McNAB	25.2	4.35	4.35						
835	12.38	11.55PM	10.00	25.4	MORGAN	19.8	4.25	4.25						
263	12.43	12.15AM	10.10	27.5	MORSIL	17.7	4.20	4.20						
330 W	12.52	12.30	10.20	30.7	CECIL	14.5	4.10	4.10						
158	1.00	12.40	10.30	34.3	EWING	10.9	4.00	4.00						
734	1.10	12.55	10.40	38.4	RHEA	6.8	3.50	3.50						
136				42.2	HARRIETT	3.0								
1,780 TP	1.25AM	1.25AM	11.00PM	45.2	D-R HEPPNER JCT. Wj	0.0	3.35AM	3.35AM						
	Arrive Mon.	Arrive Daily Ex. Sun. & Mon.	Arrive Sat.		(45.2)		Leave Mon.	Leave Daily Ex. Mon.						

(1.55) (3.25) (2.20) Thru Time (2.05) (2.05)
 23.6 13.2 19.4 Average Speed per Hour 21.7 21.7

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

FIRST DIVISION

SPECIAL RULES

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

The Ball Railroad Time Service.....	Chicago, Ill.
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.....	Weisfield & Goldberg
Tacoma.....	S. Grimstead
Centralia.....	C. R. Ahern
Heppner.....	J. O. Peterson
Hoquiam.....	F. W. Straub
Aberdeen.....	S. J. Stieglitz
Olympia.....	Talbott Bros., Inc.

3 (R). Standard clocks are located as shown below:

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

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

10 (h). At night, a yellow light on a dwarf signal, on a "call-on" signal, or on a "short-arm" signal of an interlocking plant, indicates "proceed at slow speed."

17 (C). When rules require headlight to be displayed, electric headlights on road engines must 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.

27 (A). In block signal limits, trains will not be required to stop for a switch light not burning at night, when it can be seen that the switch is in proper position.

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

TRAIN	STOPS	PASSENGERS FOR
12	Between Portland and Umatilla	Points on Third Division.
19	Between Messner and Ainsworth	Bend Branch.

ADDITIONAL FLAG STOPS TO DISCHARGE REVENUE PASSENGERS.

TRAIN	STOPS	PASSENGERS FROM
11	Heppner Junction	Irrigon.
11	Any station	Third Division.
17	Any station	Cheyenne or points east or south thereof.
19	Any station	East of Stanfield.
6	Any station	Shaniko, Condon and Heppner Branches.
6	Bridal Veil, on Saturday and Sunday	Any station.
6	Multnomah Falls, on Saturday	Any station.
20	Viento	Any station.

ADDITIONAL FLAG STOPS for REVENUE PASSENGERS, MAIL and EXPRESS.

TRAIN	STOPS	TO AND FROM
27	Oak Springs	Any station.
27	Ketchum	Any station.
27	Harris	Any station.
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.
27	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.
20	Corbett	Any station.
20	Latourell	Any station.
20	Multnomah Falls	Any station.
20	Warrendale	Any station.
27	Seufert	Any station.
27	Big Eddy	Any station.
27	Dillon	Any station.
27	Tumwater	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. 6 leaving Portland on Saturday will slow down at Bridal Veil and Cascade Locks to unload newspapers.

No. 19 will stop at Boardman, Blalock and Rufus to load and unload 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 engine men as a means of identifying extra trains.

83 (R). Clearance card (Form 2643) must be received as follows:

- At Black River, by all westward trains;
- At Centralia, by all westward Grays Harbor Branch trains originating at Blakeslee Jet.;
- At Centralia, by all eastward Tono Branch trains originating at Wabash;
- At Independence, by all westward C. M. St. P. & P. trains originating at Helsing Jet.;
- At North Jet., by all eastward Oregon Trunk Ry. trains originating at South Jet.;
- At North Jet., by all O.-W. R. R. & N. trains.

Northern Pacific clearance card A (Form 1357A) must be received as follows:

- At Reservation, by all eastward second class and extra trains passing through Tacoma;
 - At Northern Pacific Fifteenth Street telegraph office, by all eastward second class and extra trains originating at Tacoma.
- Trains are not required to receive clearance card (Form 2643) as per Rule 83(A) as follows:
- At Argo, all westward C. M. St. P. & P. passenger trains;
 - At Tono, all westward trains;
 - At Primo, all westward trains;
 - At North Portland Jet., all westward trains;
 - At Albina, all Sixth Subdivision trains.

83 (S). Trains must ascertain whether all superior trains due have left as follows:

- At Northern Pacific Fifteenth Street telegraph office, Tacoma, all eastward second class and extra trains originating at Tacoma;
- At Reservation, all eastward second class and extra trains, passing through Tacoma.

Trains are not required to ascertain whether all trains due, which are superior, or of the same class, have arrived or left as per Rule 83 as follows:

At Peninsula Jet., by all westward trains and engines but may proceed Peninsula Jet. to St. Johns Jet. on receipt of staff;

At St. Johns Jet., by all westward trains and engines but may proceed St. Johns Jet. to Albina or Portland on clear staff station semaphore at St. Johns Jet., being governed by Rule 93;

At Argo, by all westward C. M. St. P. & P. passenger trains but may proceed Argo to Seattle on clear interlocking signal indication at Argo, and run with current of traffic, being governed by Rule 93.

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;

At Messner, Nos. 5, 11, 12, 17 and 18.

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

83 (T). To enable eastward 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 westward trains which are superior or of the same class between Seattle and Argo. Trains displaying signals between Seattle and Argo will whistle as per Rule 14 (k).

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 between The Dalles and Crates will whistle as per Rule 14 (k).

83 (U). 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 (V). 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.

84 (B). On freight trains approaching sidings if everything is all right, conductors will, if practicable, signal enginemen to proceed. This will be answered by 14 (b).

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

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

93 (S). On parallel tracks between Portland and East Portland or Harding St., and between switch 750 feet west of Millroad and St. Johns Jct., trains and engines must keep to the right, except that yard engines may move against the current of traffic between East Portland and Harding Street and between switch 750 feet west of Millroad and St. Johns Jct. without being preceded by a flagman, except when on the time of a first class train.

Within yard limits at The Dalles, trains and engines must keep to the right except that they may move against the current of traffic between Tie Plant switch at east end of yard and crossover west of passenger station, without being preceded by a flagman, except when on the time of a first class train.

Within yard limits at Argo-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 is 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 engineman will sound proceed signal as per Rule 14 (b) before proceeding.

98 (S). JUNCTIONS AND RAILROAD CROSSINGS.

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.
Schafer Bros. Crossing.	Schafer Bros. Logging Ry.	O.-W. R. R. & N.	Cabin Interlocking Plant.
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 (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.
Tacoma (Yard)	N. P.	N. P.	Cabin Interlocking Plant.

SPECIAL RULES

98 (S). JUNCTIONS AND RAILROAD CROSSINGS.

Locations	Railroad Crossed or Junction with	Trains Which Have Precedence	How Governed
Tacoma (Fir Door Spur.)	N. P.	N. P.	All trains and engines stop before crossing.
Tacoma (Dempsey Mill Spur.)	N. P.	N. P.	All trains and engines stop before crossing.
Reservation	N. P.		Interlocking Plant.
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.

98 (T). When pulling into a siding, rear end of train must be clear of main track, when practicable, before train is stopped.

Trainmen and enginemen will be held responsible for striking cars on sidings or for damage done in making emergency stop to avoid striking cars. If view is obstructed, brakeman must be sent ahead.

As an additional protection, when cars are set out on siding where dispatcher cannot be notified so that train order may be immediately put out covering, one torpedo must be placed at each end of siding a sufficient distance to permit train heading in to stop. (See Transportation Department Rule 825.)

These instructions will not apply on the Shaniko, Condon and Heppner Branches.

98 (U). 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 (V). 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 (H). 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 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). Cars must not be handled ahead of engine between stations, except in work train service, or, when necessary to take them to or from a spur. When this is done, it must be for no greater distance than necessary, and the movement must be at slow speed, with air brakes cut in and operative on cars ahead of the engine.

In switching with an engine equipped with foot boards, when there are no cars ahead of the engine, a yardman, or trainman (and not more than one) must ride on leading foot board of engine in direction the engine is moving, on either yard or main tracks, except as follows:

- (a) In lead switching where the movement is not over a crossing and the switches to be passed over can be plainly seen to be properly lined;
 - (b) When moving over crossings which would not require flag protection if cars were being shoved ahead of engine;
 - (c) When making long movements from one section of yard to another section of yard involving movement over main line tracks;
 - (d) While actually engaged in switching.
- Employees are prohibited from riding on engines or cars as follows:

FIRST DIVISION

- (a) On engine foot board between engine and cars when cars are being pushed or pulled, except when necessary to make cut between engine and first car;
- (b) On leading foot board while coupling engine to cars;
- (c) On engine pilots;
- (d) On deadwood, drawbars, brake beams, journal boxes, or brake wheels;
- (e) On ends of cars containing loads which may shift.

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

103 (C). A trainman, when one available, must ride rear of tank of a road engine backing up without cars while switching at stations or moving in yards.

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 house track, which will be used as main track;
 At Helsing Jct., junction switch, —for O.-W. R. R. & N. main track;
 At Aberdeen, double track switch, (250 feet east of depot), —for eastward trains;
 At South Montesano, wye switch on Montesano Branch, —for east leg of wye;
 At Millroad, westbound main track switch, —for Albina freight yard.

104 (S). Engines and trains trailing through spring switch at Crates, must not make reverse movement until the switch has been properly lined by hand.

152 (R). THE SPEED SHOWN BELOW MUST NOT BE EXCEEDED:

(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 caboose.)

Location	Maximum Speed Miles Per Hour		Remarks
	Psg.	Frt.	
At any point.	60	40	
At any point.	50	40	With Mikado class engines with 63 inch drivers.
At any point.	45	40	With Mikado class engines with 57 inch drivers.
At any point.	45	40	With 2-10-2 class engines.
At any point.	40	40	With Consolidation class engines.
At any point.	40	40	With 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 at stations on Fourth and Fifth subdivisions.	40	25	Speed must be as much slower as conditions may require.
Within yard limits at stations on Sixth subdivision and on all branch lines.	30	15	Speed must be as much slower as conditions may require.

FIRST DIVISION
152 (R).—Continued.

Location	Maximum Speed Miles Per Hour		Remarks
	Pagr.	Frnt.	
On sidings.	15	15	
Interlocking Plants.	15	15	
Railroad crossings at grade.	15	15	
On 5 and 6 degree curves.	40	30	
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.	30	30	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.
East Portland.		8	Entering East Portland interlocking plant from Second Street, No. 10 lead, S. P. Yard or back track.
Tunnel between Peninsula Jct. and St. Johns Jct.	40	30	
Between Kenton and Troutdale.	45	35	
Hepner Branch.	30	25	
Hepner Branch, between Hepner 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 Ainsworth and North Jct.	35	30	
Between South Jct. and Paxton.	30	25	
Between Paxton and Gateway.	25		
Between Paxton and Metolius.	40	30	
Between Madras and Metolius.	25	25	Over Willow Creek Viaduct.
Between Centralia and Hoquiam.	40	35	
Blue Slough.		6	On Rollways.

SPECIAL RULES

Location	Maximum Speed Miles Per Hour		Remarks
	Pagr.	Frnt.	
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.—No. 6 will slow down passing station at Troutdale to speed of 12 miles per hour to permit exchange of U. S. Mail.
Figures on stake at beginning of curve indicate degree of curve.

152 (S). All trains and engines 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). 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:



INDICATION—
STOP OR REDUCE SPEED.

302 (A).

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.

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 (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 engines are double-headed in train control territory between The Dalles, Portland and Albina, non-train control engine must be placed behind the train control engine.

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). Automatic train control equipment on an engine is locked or sealed in cut-in position. In case train control equipment of the engine fails, or track circuits become inoperative, pneumatic portion may be cut out. This will not be done until advising with train dispatcher.

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 then cut in train control pneumatically, and notify trainmen at first opportunity.

302 (Q). Double-header cut-out cock on engines equipped with automatic train control must not be manipulated in order to forestall an automatic train control application.

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 employes 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 employes, 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 employes.

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.

SPECIAL RULES

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 move 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), except in yard limits, 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, 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 14 (b) must be given before the train proceeds.

509 (G). On single track, when a light engine or a motor train with only one trainman, is stopped by a block signal under conditions making it necessary to send a flagman ahead to comply with Rule 509 (A) or 509 (E), after placing one torpedo one-fourth mile from rear of train, it may proceed at a slow speed, not exceeding six miles an hour, expecting to find a train in the block, broken rail, obstruction, or switch not properly set, without sending a flagman ahead.

509 (H). When a train is stopped by a block signal at a meeting or passing point on single track under conditions making it necessary to send a flagman ahead to comply with Rule 509 (A) or 509 (E), if the engineman of the train which is stopped is verbally informed by a trainman of the train on the siding that his train has more cars than the siding will hold, the train which is to use the main track may proceed at slow speed not exceeding six miles an hour to the next signal, expecting to find a train in the block, broken rail, obstruction, or switch not properly set, without sending a flagman ahead.

509 (S). 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.

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 that signal and must remain there until relieved by an employe of the Signal Department or by instructions from the proper officer.

525 (A). If a Home Block Signal fails to indicate "stop," or a Distant Block Signal fails to indicate "caution" when a light engine, or a motor train with only one trainman, enters a block, the train dispatcher must be notified from the first available point of communication, and report must be sent to the Superintendent by wire.

663 (R). Interlocking plant, Schafer Bros. Crossing: Signal will automatically change from "stop" to "proceed" upon approach of train provided crossing is not occupied. Should signal fail to so change and crossing is not occupied, a member of the crew will examine derails and if found in non-derailing position, and no one in interlocking station, train may proceed through plant under flag protection at speed not exceeding six miles per hour.

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: (The signals prescribed are illustrated by "o" for short sounds; "—" for longer sounds.)

- For Portland..... ———
- For Albina..... ——— o
- For Graham..... ———
- For S. P. Main Line..... o ———
- For East Second St..... o o ———
- For S. P. Yard..... o ——— o
- For Transfer Track..... ——— o ———
- For East Side Freight Terminal..... o o ———

713 (A). A member of the crew must be stationed on the rear end in position to give or receive necessary signals when meeting trains on double track or when meeting trains on sidings. At stations where there is an agent or operator on duty, to be on the rear end when passing depot and at blind sidings to be on rear end when passing station board, except that when the train has an observation or special car, he must be on front platform of the rear car or on platform of the car next ahead. On passenger trains, the vestibule door must be open so that hot boxes or other defects may be detected.

FIRST DIVISION

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). At stations, when one or more cars are being switched or pushed over a road crossing not protected by watchman or employe assigned as such, a member of the crew must precede the movement and act as crossing watchman. He should not get on the leading end of car until it has passed over the crossing.

When a train is parted to clear a public crossing, or is standing near such crossing, a trainman must act as crossing watchman when a train or engine is approaching on a siding or main track.

Where a crossing watchman is on duty, trainman 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 24 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 60,000 lbs. (including light weight of car)
Albina to Troutdale	6000 lbs.	3000 lbs.
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 "
Ainsworth to North Jet.	6000 "	3000 "
North Jet. 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.

SPECIAL RULES

FIRST DIVISION

Railroad Surgeons are located as shown below:

NAME	TITLE	PLACE	TERRITORY
Donald H. Jessop...	Chief Surgeon...	Portland, Ore.	Portland.
Ralph M. Dodson....	Assistant Surgeon.	Portland, Ore...	Portland.
C. L. Booth.....	Assistant Surgeon.	Portland, Ore...	Portland.
Archie Van Cleve....	Assistant Surgeon.	Portland, Ore...	Portland.
J. C. Ghormley.....	Assistant Surgeon.	Portland, Ore...	East Portland south of Sullivan's Gulch.
Carl H. Bastron.....	Assistant Surgeon.	Portland, Ore...	East Portland north of Sullivan's Gulch.
Richard N. Jacobs...	Assistant Surgeon.	Portland, Ore...	East Portland north of Sullivan's Gulch.
Harry M. Bouvy.....	Specialist.....	Portland, Ore...	Portland.
J. W. McCollom.....	Specialist.....	Portland, Ore...	Portland.
J. B. Flynn.....	Specialist.....	Portland, Ore...	Portland.
H. L. Dumble.....	District Surgeon..	Hood River, Ore.	Portland to The Dalles.
Reuter, Thompson, Coberth, Griffith & Taylor.....	District Surgeons.	The Dalles, Ore.	Hood River to Umatilla.
French & Young.....	Specialists.....	The Dalles, Ore.	Hood River to Umatilla.
J. C. Vandervert....	District Surgeon..	Bend, Ore.....	Ainsworth to Bend.
C. L. Poley.....	District Surgeon..	Grass Valley, Ore.....	Biggs to Shaniko.
J. V. Wilhelm.....	District Surgeon..	Arlington, Ore..	The Dalles to Umatilla and Arlington to Condon.
W. J. Miller.....	District Surgeon..	Condon, Ore....	Arlington to Condon.
A. D. McMurdo.....	District Surgeon..	Heppler, Ore...	Heppler Jct. to Heppler.
Alexander Reid.....	District Surgeon..	Umatilla, Ore...	Umatilla to Stanfield.
J. B. Blair.....	District Surgeon..	Vancouver, Wash.....	Albina to Kalama.
W. R. Scott.....	District Surgeon..	Centralia, Wash.	Winlock to Tenino, Centralia to South Elma and Tono Branch.
L. R. Lightfoot.....	District Surgeon..	Cosmopolis, Wash.....	South Elma to Aberdeen.
I. R. Watkins.....	District Surgeon..	Aberdeen, Wash.	Cosmopolis to Aberdeen.
H. C. Watkins.....	District Surgeon..	Hoquiam, Wash.	Centralia to Hoquiam.
W. L. Bridgford.....	District Surgeon..	Olympia, Wash..	Chambers Prairie to Olympia.
C. P. Gammon.....	District Surgeon..	Tacoma, Wash..	Tenino to Auburn.
Montgomery Russell.	Division Surgeon.	Seattle, Wash...	Tacoma to Seattle.
F. R. Underwood....	District Surgeon..	Seattle, Wash...	Tacoma to Seattle.
S. M. Samuels.....	Specialist.....	Seattle, Wash...	Portland to Seattle.

865 (A). Trainmen, enginemen, yardmen, agents, and other employes who in any way handle or care for explosives and other dangerous articles must familiarize themselves with the regulations and instructions governing the handling of them.

Conductors must notify enginemen of the presence and location in the train of cars containing explosives and of loaded placarded tank cars before leaving the initial station or station where such cars are picked up.

Cars placarded "Explosives" must be placed in through freight trains near the middle of the train and must be not nearer than the 16th car from the engine, electric locomotive, or motor car, nor the 11th car from the caboose, if the length of train will permit.

Cars placarded "Explosives" may be placed in local freight, local pick-up, and local set-out trains not nearer than the second car from the engine, electric locomotive, or motor car, or caboose when placing them near the middle of the train would require additional switching at way stations.

Cars placarded "Explosives" must not be placed in through or local trains next to cars placarded "Inflammable" or "Corrosive Liquid," nor next to empty or loaded tank cars, wooden frame flat or gondola cars, nor next to carloads of pipe, lumber, poles, iron, steel, or similar articles liable to shift and break through end of placarded car; nor next to cars containing lighted heaters, stoves or lanterns.

Placarded tank cars must not be placed in trains next to cars placarded "Explosives" nor next to cars containing lighted heaters, stoves or lanterns, and when practicable must be placed not nearer than the sixth car from the engine, electric locomotive or motor car, or caboose, nor next to gondola or flat cars with lading such as logs, lumber, rails or pipe that is likely to shift.

Empty tank cars must not be moved from stations unless dome cover and all outlets have been replaced and wrenched tight, shipping tags and cards removed from car, and "Inflammable" placards removed or replaced by "Dangerous Empty" placards.

When placards become detached in transit, conductor must see that they are replaced upon arrival at the next terminal, if in through trains, or at first station stop if in local freight trains.

865 (B). Cars designated below must be handled in rear of train, and next to caboose in the order named:

- Drover cars,
- Cars with emergency drawbars,
- Outfit cars,
- Emigrant movables,
- All wooden underframe cars,
- Any car tagged with Form 4725 reading, "Handle only at rear end of train,"
- Scale test cars.

Drover cars, occupied or unoccupied, must be placed in trains next ahead of caboose.

Trains containing drover cars must not be pushed by an engine at the rear. If it becomes necessary, in an emergency, to clear main track by use of an engine at rear of the train, the drover cars must first be vacated.

When a helper engine is used, it must be cut in ahead of drover cars. Switching must not be done with drover cars, except in handling to or from trains.

Live stock must be handled in head end of train when practicable, and stock cars loaded with scrap, boards, engine wood, long rods, bolts, or any commodity which might work out of openings in sides or ends of car, must not be moved until these openings are properly slatted.

Freight cars with bad order draw bars may be handled in trains under the following conditions:

- (a) When not containing live stock or perishables, may be chained up in train and handled to first available side track where must be set out to be repaired.
- (b) When containing live stock or perishables, may be chained up in train and handled to first repair point.
- (c) When containing any commodity or empty, may be handled behind the caboose to destination or to first terminal, provided the good draw bar can be coupled to the caboose and in addition is secured by chain, and has air and hand brakes operative. On ascending grades a trainman must ride the car.

A red flag by day or a red light by night must be displayed on the rear of any car handled behind caboose.

877 (A). Employes must not go out on exterior of cab of, nor hang out from gangway or steps of, a moving engine for any purpose. When this is necessary, the engine must be stopped.

888 (A). While passing through cities, towns and yards, 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.

AIR BRAKES

1014 (R). 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 (R). Road train brake test as prescribed in Rule 1044 (A) of Operating Rules governing Air Brakes effective December 1, 1925, will be made on all freight and mixed trains before descending grade on Condon Branch between Barnett and Rock Creek and on Shaniko Branch between Biggs and Klondike, 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 30 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 (G). Locomotive and tender brakes on engines helping or pushing trains will be operated in conjunction with the train brake.

1051 (R). Running test as prescribed in Rules 1051 and 1051 (A) of Operating Rules governing Air Brakes effective December 1, 1925, will be made before descending 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 Montesano and South Montesano—on passenger trains backing up.
- 1059 (R). 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 fuel, water or sand 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 (R). 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.

On Bend Branch on freight and mixed trains on descending grades between M. P. 100 and South Junction trains averaging not to exceed 50 gross tons per car may be handled without the use of retainer valves. Responsibility for use of retainer valves rests primarily with engineman and he will direct as to their use. However retaining valves must be used, if in the judgment of the conductor, their use is necessary. On trains averaging in excess of 50 gross tons per car, one-half of the retaining valves will be used consecutively from the head end of the train.

RATING OF ENGINES IN FREIGHT SERVICE IN TONS OF 2000 POUNDS

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

TYPE OF ENGINES	ENGINE NUMBERS	PORTLAND AND THE DALLES									THE DALLES and UMATILLA				PORTLAND AND SEATTLE									
		EASTWARD					WESTWARD				EASTWARD		WESTWARD		WESTWARD							EASTWARD		
		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
P 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	4000	3400	5375	2700	3050	4000	4000	5000	3710	2175	1965	4500	3585	4360	3585	3585	1650	4950
MK 57	23 207sDB 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 292sDB 30 301sDB	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

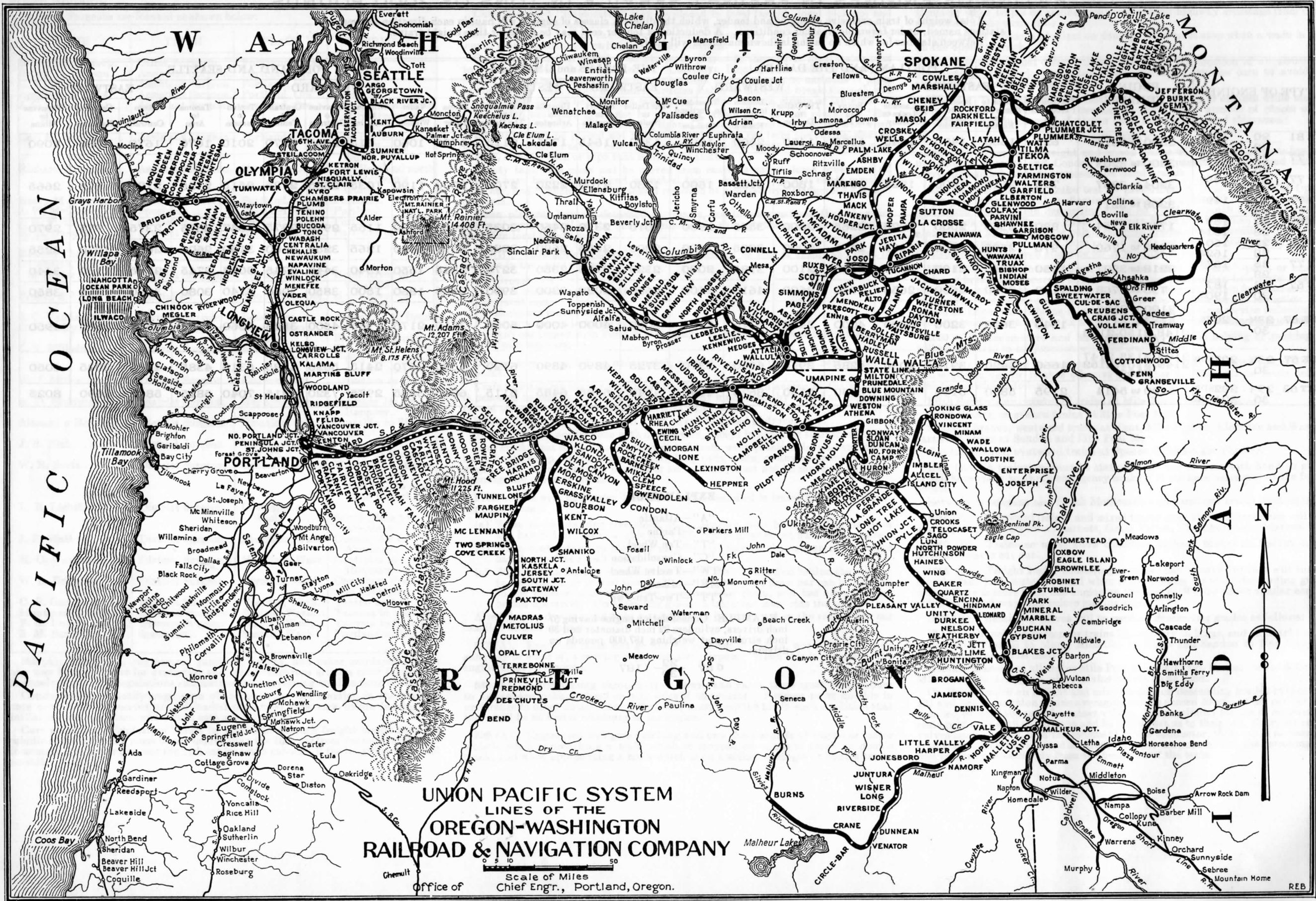
EXPLANATION

- "A"—Atlantic
- "P"—Pacific
- "T"—Ten Wheel
- "C"—Consolidation
- "TW"—Twelve Wheel
- "MK"—Mikado
- "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



**UNION PACIFIC SYSTEM
LINES OF THE
OREGON-WASHINGTON
RAILROAD & NAVIGATION COMPANY**

Scale of Miles
0 5 10 50
Office of Chief Engr., Portland, Oregon.