

UNION PACIFIC SYSTEM

OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY

First Division

EMPLOYEES' TIME-TABLE



To Take Effect Sunday, December 15, 1929

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

For the government and information of employees 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.
- O. H. NEWMAN, TRAIN DISPATCHER.....Portland, Oregon.
- C. D. BROWN, 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

FIRST CLASS

SECOND CLASS

251 Time Freight		255 Time Freight							Distance from Huntington	Time-Tables Nos. 36-72 December 15, 1929					Distance from Portland						252 Time Freight		254 Time Freight			
Leave Daily	Leave Daily			17 Passenger	11 Passenger	5 Mail	23 Passenger	19 Passenger		20 Passenger	18 Passenger	12 Passenger	6 Passenger	24 Passenger				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
		5.00AM			8.50PM		6.29PM	2.25PM	2.55AM	0.0	HUNTINGTON	389.5	11.35PM	6.50AM		10.50AM	2.00PM								11.59AM	
		10.50AM			12.20AM		9.20PM	6.45PM	6.40AM	99.5	LA GRANDE	290.0	8.00PM	3.20AM		7.25AM	10.40AM								12.30AM	
					3.10AM		11.59PM	10.15PM	9.55AM	173.8	PENDLETON	215.7	4.50PM	11.59PM		4.25AM	7.10AM									
		6.00PM								177.5	RIETH	212.0													4.00PM	
	1.00PM						2.35AM		1.00AM	215.8	UMATILLA	183.0			1.50AM	2.40AM	5.20AM							8.00AM		
	8.00PM	1.45AM			6.50AM	5.00AM	3.45AM	4.30AM	2.15PM	305.3	THE DALES	84.2	12.50PM	8.35PM	11.25PM	11.35PM	1.35AM							1.45AM	2.45AM	
					9.30AM	7.35AM	6.10AM	7.15AM	5.30PM	389.5	PORTLAND	0.0	9.40AM	6.10PM	9.00PM	9.10PM	11.00PM									
	3.00AM	8.15AM								394.3	ALBINA	1.6												8.30PM	9.30PM	
Arrive Daily	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	Leave Daily	
(14.00) 12.7	(27.15) 14.4				(12.40) 30.7	(5.00) 36.6	(11.41) 33.3	(16.50) 23.7	(14.35) 26.7		..... Thru Time.....		(13.55) 27.9	(12.40) 30.7	(4.50) 37.8	(13.40) 29.2	(15.00) 26.6							(11.30) 15.5	(38.20) 10.2
											..... Average Speed per Hour.....														

WESTWARD

Seattle and Portland

EASTWARD

SECOND CLASS

FIRST CLASS

FIRST CLASS

SECOND CLASS

692 Time Freight		35 CMSt.P&P Passenger (8)		41 CMSt.P&P Passenger (7)		33 CMSt.P&P Passenger (16)		37 CMSt.P&P Passenger (15)		39 CMSt.P&P Passenger (18)		31 CMSt.P&P Passenger (17)		564 Passenger		562 Passenger		Distance from Seattle	Time-Table No. 72 December 15, 1929					Distance from Portland									691 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	Leave Daily	Leave Daily	Leave Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	
		9.45PM	7.15PM	6.15PM	10.10AM	9.00AM	7.45AM	11.15PM	11.10AM	0.0	SEATTLE	183.2	5.00PM	6.30AM	7.30AM	8.45AM	10.00AM	6.00PM	7.00PM	9.15PM														
	6.25PM	9.54PM	7.24PM	6.24PM	10.19AM	9.09AM	7.54AM			3.1	ARGO	180.1			7.21AM	8.36AM	9.51AM	5.51PM	6.51PM	9.06PM												6.45AM		
	8.40PM							12.40AM	12.35PM	38.1	TACOMA	145.1	3.35PM	5.00AM																		5.00AM		
	12.05AM							2.40AM	2.10PM	92.1	CENTRALIA	91.1	2.00PM	2.20AM																		12.30AM		
	7.35AM									181.6	ALBINA	1.6																				7.30PM		
								6.15AM	5.10PM	183.2	PORTLAND	0.0	11.00AM	11.15PM																				
Arrive Daily	Arrive Daily	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	Leave Daily	Leave Daily	Leave Daily	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	(0.09) 20.6	(0.09) 20.6	(7.00) 26.2	(6.00) 30.5		..... Thru 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	(0.09) 20.6	(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

FIRST CLASS

SECOND CLASS

251 Time Freight							Distance from Spokane	Time-Table No. 38 December 15 1929					Distance from Pendleton-Umatilla						252 Time Freight																		
Leave Daily	Leave Daily	45 Passenger	75 Passenger	73 Passenger	11 Passenger	77 Passenger		12 Passenger	76 Passenger	74 Passenger	78 Passenger	46 Passenger		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily															
	9.45PM				9.20PM	7.30AM	0.0																														
					5.45PM		116.1																														
					9.15PM	9.05PM	147.8																														
	2.55AM				9.55PM		103.9																														
	7.45AM				3.45AM	11.59PM	157.2																														
	9.15AM				12.45AM		184.5																														
							156.5																														
					5.15AM		204.6																														
							251.4																														
Arrive Daily	Arrive Daily				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		(251.4)		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	Leave Daily	Leave Daily	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		..... Thru Time.....		(5.10) 35.7	(2.50) 34.6	(3.30) 25.1	(9.35) 26.2	(1.10) 26.7																				
											..... 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 tele-phones.	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	
WFTYP	1.00PM					2.35AM	1.00AM		215.8
3,110 P	1.12					2.41	1.15		220.0
3,200 P	1.22					2.45	1.29		223.2
3,200 P	1.34					2.50	1.35		226.9
6,218 WFYP	1.54	7.45PM	11.40AM		4.45AM	3.00	1.45	1.25AM	223.9
650	2.00	7.52	11.43		4.48	3.03	1.48	1.30	225.7
4,900 P	2.05	7.58	11.47		4.51	3.06	1.56	1.35	227.5
4,904 P	2.16	8.10	11.52AM		4.56	3.11	2.05	1.40	231.4
5,190 P	2.37	8.30	12.01PM		5.04	3.18	2.13	1.47	237.2
824 TP	2.52	8.45	12.07		5.10	3.23	2.19	1.52	241.2
5,001 P	2.57	8.50	12.10		5.12	3.25	2.24	1.54	242.7
4,924 P	3.13	9.06	12.17		5.18	3.31	2.30	2.00	247.1
WB 6,296 EB 5,906 WTP	3.30	9.25	12.27		5.25	3.37	2.40	2.08	251.7
4,940 P	3.45	9.45	12.32		5.32	3.42	3.00	2.14	255.4
4,946 WP	4.00	10.00	12.40		5.38	3.48	3.08	2.21	259.9
4,917 P	4.14	10.12	12.46		5.44	3.53	3.14	2.27	263.9
4,892 P	4.25	10.20	12.50		5.47	3.56	3.18	2.30	266.3
5,000 P	4.40	10.34	12.58		5.53	4.02	3.24	2.38	270.6
4,947 P	4.56	10.46	1.04		5.58	4.07	3.30	2.43	274.6
5,165 WP	5.06	10.56	1.08		6.02	4.11	3.34	2.47	277.4
5,000 P	5.16	11.05	1.13		6.06	4.15	3.38	2.51	280.1
4,926 P	5.26	11.14	1.18		6.10	4.19	3.42	2.54	282.7
6,656 YP	5.40	11.24	1.25		6.14	4.24	3.50	2.58	285.6
752 WP	5.48	11.30	1.30	1.15PM	6.17	4.27	3.55	3.02	287.7
2,750	5.56	11.35	1.33	1.18	6.19	4.29	3.57	3.05	289.2
2,625	6.14	11.45	1.39	1.24	6.24	4.34	4.03	3.12	293.1
									293.5
P	6.18	11.53PM	1.41	1.26	6.26	4.36	4.05	3.15	294.3
Spur									296.0
3,678	6.35	12.05AM	1.46	1.31	6.31	4.40	4.10	3.20	297.8
									300.9
Spur									301.8
WFTOP	6.55PM	12.25AM	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. 72
December 15, 1929

STATIONS

DN-R	UMATILLA	Ca
	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	Qu
	4.3	
	HOOK	
	4.0	
	GOFF	
	2.8	
	DAY	
	2.7	
	RUFUS	
	2.6	
	GRANT	
	2.9	
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)	

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

(5.55) (4.40) (2.20) (0.30) (2.00) (2.20) (3.25) (2.10) Thru Time
16.7 17.4 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

FIRST CLASS

SECOND CLASS

Time-Table No. 72

December 15, 1929

Distance from Portland

STATIONS

DN-R	UMATILLA	Cs	183.0
	4.2 BAILEY		178.8
	3.2 IRRIGON		175.6
	3.7 JUDSON		171.9
DN-R	MESSNER	Fe	165.6
	1.8 BOARDMAN	Bd	163.8
	1.8 PETERS		162.0
	3.9 CASTLE		158.1
	5.8 BOULDER		152.3
N	HEPPNER JCT.	Wi	148.3
	1.5 WILLOWS		146.8
	4.4 SILICA		142.4
DN	ARLINGTON	Mx	137.8
	3.7 GILMORE		134.1
	4.5 BLALOCK		129.6
	4.0 RAMSAY		125.6
N	QUINTON	Qn	123.2
	4.3 HOOK		118.9
	4.0 GOFF		114.9
	2.8 DAY		112.1
	2.7 RUFUS		109.4
	2.6 GRANT		106.8
DN	BIGGS	Bx	103.9
D	SHERMAN	Vo	101.8
	1.5 MILLER		100.3
	3.9 CELILO		96.4
	0.4 TUMWATER		96.0
	0.8 OREGON TRUNK JCT.		95.2
	1.7 DILLON		93.5
	1.8 DUNE		91.7
	3.1 BIG EDDY		88.6
	0.9 SEUFERT		87.7
DN-R	THE DALLES	Dk-Wh	84.2

Double Track

24	20	30	18	12	6
Passenger	Passenger	Passenger	Passenger	Passenger	Passenger
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
5:05AM				1:40AM	2:30AM
4:54				1:33	2:22
4:45				1:29	2:14
4:35				1:24	2:02
4:20	3:00PM		10:35PM	1:16	1:45
4:15	2:56		10:31	1:13	1:40
4:10	2:53		10:28	1:10	1:35
4:04	2:46		10:22	1:05	1:28
3:52	2:37		10:15	12:58	1:18
3:44	2:32		10:08	12:53	1:12
3:39	2:29		10:05	12:51	1:08
3:31	2:22		9:59	12:45	1:00
3:12	2:15		9:52	12:38	12:53
3:00	2:09		9:45	12:33	12:48
2:53	2:03		9:40	12:27	12:42
2:47	1:57		9:35	12:22	12:37
2:44	1:54		9:32	12:19	12:34
2:38	1:48		9:26	12:14	12:28
2:29	1:42		9:21	12:09	12:22
2:25	1:38		9:17	12:05	12:18
2:21	1:34		9:14	12:02AM	12:14
2:17	1:30		9:11	11:59PM	12:11
2:11	1:25		9:07	11:55	12:07
2:05	1:20	1:30PM	9:04	11:52	12:04
2:02	1:17	1:27	9:02	11:49	12:01AM
1:56	1:11	1:21	8:56	11:44	11:56PM
1:54	1:09	1:19	8:54	11:42	11:54
1:49	1:04	1:14	8:49	11:38	11:49
1:35AM	12:50PM	1:00PM	8:35PM	11:25PM	11:35PM
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily

252	254	258
Time Freight	Time Freight	Time Freight
Arrive Daily	Arrive Daily	Arrive Daily
8:00AM		
7:45		
7:34		
7:20		
7:00	7:50AM	2:50AM
6:54	7:40	2:40
6:48	7:30	2:30
6:34	7:12	2:05
6:15	6:48	1:47
6:02	6:31	1:25
5:56	6:25	1:20
5:42	6:05	1:10
5:25	5:46	12:53 12:01AM
5:01	5:32	11:50PM
4:43	5:12	11:39
4:28	5:03	11:30
4:18	4:56	11:23
4:02	4:42	11:12
3:30	4:32	11:03
3:15	4:24	10:56
3:05	4:15	10:48
2:54	3:58	10:42
2:40	3:50	10:36
2:35	3:37	10:31
2:30	3:30	10:27
2:20	3:20	10:18
2:16	3:16	10:15
2:05	3:05	10:10
1:45AM	2:45AM	9:55PM
Leave Daily	Leave Daily	Leave Daily

Thru Time.....	(3.30)	(2.10)	(0.30)	(2.00)	(2.15)	(2.55)	(6.15)	(5.05)	(4.55)
Average Speed per Hour.....	28.2	37.6	35.2	40.7	43.9	33.8	15.8	15.9	16.5

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

WESTWARD

FIFTH SUBDIVISION

Time-Table No. 72

December 15, 1929

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	STATIONS
	251	978	692	255	562	19	17	11	23	5	564			
	Time Freight	Way Freight	Time Freight	Time Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Mail	Passenger			
	Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			
WFTOP	8.00PM			1.45AM		2.15PM	6.50AM	5.00AM	4.30AM	3.45AM		305.3	DN-R THE DALLES Dk-Wh	
P	8.23			1.58		2.21	6.56	5.06	4.36	3.50		307.8	CRATES 2.5	
3,309 P	8.42			2.20		2.34	7.04	5.14	4.44	3.58		313.4	ROWENA 5.6	
3,185 P	8.54			2.35		2.42	7.10	5.20	4.50	4.04		317.0	CHATFIELD 3.6	
3,250 P	9.10			2.50		2.50	7.16	5.26	4.56	4.10		320.3	MOSIER 3.3	
WB 3,629 EB 5,350 WP	9.35			3.10		3.04	7.26	5.36	5.06	4.20		326.3	HOOD RIVER 6.0	
4,040 P	9.52			3.25		3.13	7.34	5.44	5.14	4.28		330.4	MENO 4.1	
3,255 P	9.58			3.30		3.16	7.36	5.46	5.17	4.30		332.0	SONNY 1.6	
4,900 P	10.15 10.30			3.45		3.26	7.43	5.54	5.26	4.38		336.6	LINDSEY 4.6	
5,110 WTP	10.57			3.58		3.33	7.48	5.59	5.32	4.43		339.8	WYETH 3.2	
4,900 P	11.12			4.10		3.40	7.53	6.04	5.38	4.48		342.7	FARLEY 2.9	
4,900 FP	11.41PM			4.25		3.48	8.00	6.10	5.45	4.55		346.6	CASCADE LOCKS 3.9	
WB 3,537 EB 3,246 WTP Spur	12.05AM			4.45		3.58	8.08	6.18	5.54	5.02		350.8	EAGLE CREEK 2.8	
3,315 P	12.20			5.09		4.08	8.17	6.25	6.02	5.09		353.7	BONNEVILLE 1.4	
3,108 P	12.30			5.20		4.14	8.22	6.30	6.07	5.13		355.4	WARRENDALE 2.9	
												357.9	DODSON 1.7	
3,479 OP	12.50			5.38		4.25	8.32	6.38	6.16	5.20		359.9	ONEONTA 2.7	
4,900 P	1.04			5.50		4.34	8.40	6.44	6.24	5.26		363.2	MULTNOMAH FALLS 1.8	
1,040												365.6	BRIDAL VEIL 3.3	
3,050 P	1.18			6.00		4.42	8.45	6.49	6.29	5.31		367.1	LATOURELL 2.4	
5,979 WTP	1.35			6.15		4.50	8.52	6.56	6.36	5.36		369.1	ROOSTER ROCK 1.5	
2,700 P						4.56	8.58	7.02	6.42	5.40		370.4	CORBETT 2.0	
2,720 P						5.07	9.09	7.13	6.54	5.49		373.9	TAYLOR 1.3	
1,560 P						5.15	9.15	7.20	7.00	5.55		377.3	TROUTDALE 3.5	
1,058						5.20	9.20	7.25	7.05	6.00		379.3	FAIRVIEW 2.4	
3,215 P	1.50			6.35								381.8	CLARNIE 5.5	
347												381.7	GRAHAM 3.3	
3,315 P	2.05			7.00								385.6	BRUUN 2.5	
311												389.1	HEMLOCK 5.0	
3,402	2.20			7.25								390.3	WARD 2.8	
1,415 YP	2.30			7.42								390.3	FIR 1.9	
IP												394.3	ADAMSBORO 2.0	
1,415 YP		12.15PM	6.55AM									394.4	KENTON 3.5	
1,415 YP		12.23	7.03									399.3	PENINSULA JCT. 1.2	
1,415 YP	2.30	12.23	7.03	7.42								399.3	PENINSULA JCT. 1.2	
P	2.40	12.35	7.15	7.55								399.3	PENINSULA JCT. 1.5	
P	2.50	12.45	7.25	8.05								399.3	ST. JOHNS JCT. 1.2	
WFTYOP	3.00AM	12.55PM	7.35AM	8.15AM								399.3	MILLROAD 1.3	
												399.4	ALBINA 0.1	
IP												388.9	HARDING ST. 0.9	
IP												389.2	EAST PORTLAND 0.3	
												389.5	UNITED RY. CROSSING 0.3	
	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		DN-R PORTLAND Dispr. P-So-V	

Block Signals	Staff System Signals	Block Signals
		DN-R THE DALLES Dk-Wh
		CRATES 2.5
		ROWENA 5.6
		CHATFIELD 3.6
		MOSIER 3.3
		HOOD RIVER 6.0
		MENO 4.1
		SONNY 1.6
		LINDSEY 4.6
		WYETH 3.2
		FARLEY 2.9
		CASCADE LOCKS 3.9
		EAGLE CREEK 2.8
		BONNEVILLE 1.4
		WARRENDALE 2.9
		DODSON 1.7
		ONEONTA 2.7
		MULTNOMAH FALLS 1.8
		BRIDAL VEIL 3.3
		LATOURELL 2.4
		ROOSTER ROCK 1.5
		CORBETT 2.0
		TAYLOR 1.3
		TROUTDALE 3.5
		FAIRVIEW 2.4
		CLARNIE 5.5
		GRAHAM 3.3
		BRUUN 2.5
		HEMLOCK 5.0
		WARD 2.8
		FIR 1.9
		ADAMSBORO 2.0
		KENTON 3.5
		PENINSULA JCT. 1.2
		DN NORTH PORTLAND JCT. 1.2
		PENINSULA JCT. 1.2
		PENINSULA JCT. 1.5
		ST. JOHNS JCT. 1.2
		MILLROAD 1.3
		ALBINA 0.1
		HARDING ST. 0.9
		EAST PORTLAND 0.3
		UNITED RY. CROSSING 0.3
		DN-R PORTLAND Dispr. P-So-V

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. 72

December 15, 1929

FIRST CLASS

SECOND CLASS

STATIONS	Distance from Portland	FIRST CLASS							SECOND CLASS					
		20	561	18	12	6	24	563	977	691	258	252	254	
		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				9.35PM	12.30AM	1.55AM	
CRATES	81.7	12.31		8.23	11.13	11.23	1.21				9.16	12.15	1.38	
ROWENA	76.1	12.22		8.16	11.02	11.12	1.12				9.05	12.04AM	1.27	
CHATFIELD	72.5	12.15		8.10	10.56	11.06	1.05				8.54	11.53PM	1.16	
D MOSIER H	69.2	12.08PM		8.05	10.50	11.00	12.58				8.46	11.45	1.08	
DN HOOD RIVER Ki	63.2	11.55AM		7.53	10.38	10.48	12.48				8.30	11.30	12.48 12.30	
MENO	59.1	11.47		7.45	10.30	10.40	12.40				8.16	11.19	12.18	
SONNY	57.5	11.44		7.43	10.28	10.38	12.38				8.12	11.15	12.14	
LINDSEY	52.9	11.35		7.35	10.20	10.30	12.30				8.01	11.04	12.02AM	
WYETH	49.7	11.28		7.30	10.15	10.25	12.24				7.55	10.57	11.54PM	
FARLEY	46.8	11.22		7.26	10.11	10.21	12.19				7.48	10.50	11.48	
DN CASCADE LOCKS Cj	42.9	11.13		7.20	10.05	10.15	12.12				7.40	10.42	11.41	
EAGLE CREEK	40.1													
D BONNEVILLE Mu	38.7	11.03		7.13	9.58	10.08	12.05AM				7.28	10.33	11.30	
WARRENDALE	35.8													
DODSON	34.1	10.54		7.07	9.52	10.02	11.58PM				7.19	10.23	11.21	
ONEONTA	31.4	10.48		7.03	9.49	9.59	11.54				7.14	10.18	11.16	
MULTNOMAH FALLS	29.6													
D BRIDAL VEIL Ju	26.3	10.38		6.55	9.43	9.53	11.46				7.05	10.10	11.07	
LATOURELL	23.9													
ROOSTER ROCK	22.4	10.30		6.50	9.38	9.48	11.40				6.58	10.03	10.59	
CORBETT	20.4													
TAYLOR	19.1	10.23		6.45	9.34	9.44	11.35				6.52	9.57	10.52	
DN TROUTDALE Sn	15.6	10.16		6.40	9.30	9.40	11.30				6.45	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				VIA KENTON	VIA KENTON	VIA KENTON	
GRAHAM	4.4	9.53		6.22	9.12	9.22	11.12							
BRUN	1.9	9.47		6.17	9.07	9.17	11.07							
HEMLOCK	17.0										6.27	9.12	10.12	
WARD	14.2													
FIR	12.3										6.17	9.02	10.02	
ADAMSBORO	10.3													
KENTON	6.8										6.05	8.50	9.50	
PENINSULA JCT.	5.6										6.00	8.45	9.45	
DN NORTH PORTLAND JCT. ED	6.8						11.38PM			6.50AM	8.00PM			
PENINSULA JCT.	5.6						11.34			6.45	7.55			
PENINSULA JCT.	5.6						11.34			6.45	7.55	6.00	8.45	9.45
ST. JOHNS JCT.	4.1						11.30			6.40	7.50	5.55	8.40	9.40
MILLROAD	2.9						11.25			6.30	7.40	5.50	8.35	9.35
DN-R ALBINA B	1.6									6.20AM	7.30PM	5.45PM	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 Ex. Sun.	Leave Daily	Leave Daily	Leave Daily	Leave Daily

Block Signals

Staff Block Signals

Block Signals

Thru Time	(3.00)	(0.19)	(2.20)	(2.20)	(2.20)	(2.30)	(0.23)	(0.30)	(0.30)	(3.50)	(4.00)	4.25
Average Speed per Hour	28.0	21.4	36.1	36.1	36.1	33.7	17.7	10.4	10.4	25.6	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, in-tanking plants, turning stations, scales and tele-phones.	SECOND CLASS		FIRST CLASS								Distance from Seattle	Time-Table No. 72		
	978	692	564	35	41	33	562	37	39	31		December 15, 1929		
	Way Freight	Time Freight	Passenger	CMSt.P.&P Passenger (8)	CMSt.P.&P Passenger (7)	CMSt.P.&P Passenger (16)	Passenger	CMSt.P.&P Passenger (15)	CMSt.P.&P Passenger (18)	CMSt.P.&P Passenger (17)				
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	0.0	STATIONS	
P			11.15PM	9.45PM	7.15PM	6.15PM	11.10AM	10.10AM	9.00AM	7.45AM	1.9	DN-R	SEATTLE	Ow
											1.9		1.9	G. N. CROSSING
											1.9		1.9	N. P. CROSSING
WFITYOP		6.25PM	11.24	9.54PM	7.24PM	6.24PM	11.19	10.19AM	9.09AM	7.54AM	3.1	DN-R	ARGO	G
I													3.1	C.M.St.P.&P.&P.C.CROSSING
1,354	P	6.45PM	11.32PM		Arrive Daily				11.30AM		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		8.20PM							12.16AM					12.20PM		35.7	DN	TACOMA JCT.	Jn
I		8.30PM							12.19AM					12.23PM		36.4	DN	RESERVATION	Rn
																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		12.15PM	6.00AM						5.42AM					4.47PM		176.4		NORTH PORTLAND JCT.	
1,415	YP															177.6		PENINSULA JCT.	
	P															179.1		ST. JOHNS JCT.	
	P															180.3		MILLROAD	
	P	12.55PM	7.35AM													181.6		ALBINA	
																181.7		HARDING ST.	
	IP															182.6		EAST PORTLAND	
																182.9		UNITED RY. CROSSING	
	IP								6.15AM					5.10PM		183.2		PORTLAND	183.2
		Arrive Daily	Arrive Daily						Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				

(0.40) (13.10) (7.00) (0.09) (0.09) (0.09) (0.09) (6.00) (0.09) (0.09) (0.09) Thru Time
7.8 13.9 26.2 20.6 20.6 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. 72.

December 15, 1929

FIRST CLASS

SECOND CLASS

STATIONS	Distance from Portland	FIRST CLASS								SECOND CLASS			
		563 Passenger	32 CMSt.P&P Passenger (17)	40 CMSt.P&P Passenger (18)	38 CMSt.P&P Passenger (15)	561 Passenger	34 CMSt.P&P Passenger (16)	42 CMSt.P&P Passenger (7)	36 CMSt.P&P Passenger (8)	691 Time Freight	977 Way Freight		
Arrive Daily	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	8.45AM	10.00AM	5.00PM	6.00PM	7.00PM	9.15PM				
G. N. CROSSING	181.3												
N. P. CROSSING	181.3												
DN-R ARGO G	180.1	6.20	7.21AM	8.36AM	9.51AM	4.51	5.51PM	6.51PM	9.06PM	6.45AM			
C.M.St.P.&P.&P.C. CROSSING													
DN-R BLACK RIVER B ₁	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.

DN TACOMA JCT. Jn	147.5	5.10AM				3.45PM						5.15AM
DN RESERVATION Rn	146.8	5.06AM				3.42PM						5.10AM
N. P. CROSSING	146.7											
N. P. CROSSING	146.5											
N. P. CROSSING	146.5											
N. P. CROSSING	146.4											
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.

NORTH PORTLAND JCT.	6.8	11.38PM				11.20AM						8.00PM	6.50AM
PENINSULA JCT.	5.6												
ST. JOHNS JCT.	4.1												
MILLROAD	2.9												
ALBINA	1.6											7.30PM	6.20AM
HARDING ST.	1.5												
EAST PORTLAND	0.6												
UNITED RY. CROSSING	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			Leave Daily	Leave Daily Ex. Sun.

Thru Time.....	(7.15)	(0.09)	(0.09)	(0.09)	(6.00)	(0.09)	(0.09)	(0.09)				(11.15)	(0.30)
Average Speed per Hour.....	25.2	20.6	20.6	20.6	30.5	20.6	20.6	20.6				16.3	10.4

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							
SECOND CLASS			FIRST CLASS		Distance from Bend	Time-Table No. 72 December 15, 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		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. & Sat.	Leave Daily Ex. Mon.	Leave Daily	Leave Daily	STATIONS			Arrive Daily	Arrive Daily	Arrive Daily Ex. Mon.	Arrive Mon., Wed. & Fri.	Arrive Daily			
WYO	1.15AM			7.25AM	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	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					
2,680	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
2,480		4.35	12.25	3.50	11.15	9.05		PAXTON		95.4	5.20	4.35	3.50	1.40	3.15
2,000	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					
1,280	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 OREGON TRUNK RAILWAY															
P	6.05AM				10.05AM	76.0	D-R	NORTH JUNCTION	Jn	71.3	4.25PM				2.05AM
1,100		6.10			10.10	77.1		COVE CREEK		70.2	4.20				2.00
1,160		6.20			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
1,150	WP	7.05			10.55	96.1	D	MAUPIN	Hf	51.2	3.40				1.12
						100.3		OAK SPRINGS		47.0					
		7.30			11.16	104.5		SHERARS BRIDGE		42.8	3.20				12.46
1,290	WP	7.35			11.20	105.1		FARGHER		42.2	3.15				12.43
1,200		8.05			11.45	115.5		TUNNEL ONE		31.8	2.50				12.13AM
						120.3		KETCHUM		27.0					
1,160	P	8.20			11.59AM	121.1		BLUFFS		26.2	2.35				11.55PM
2,650	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	Vc	0.0	1.35PM				10.40PM
		Arrive Daily	Arrive Tues., Thurs. & Sat.	Arrive Daily Ex. Mon.	Arrive Daily	Arrive Daily		(147.3)			Leave Daily	Leave Daily	Leave Daily Ex. Mon.	Leave Mon., Wed. & Fri.	Leave Daily

(8.25) (1.55) (1.35) (1.07) (5.50) Thru Time (5.50) (1.30) (1.45) (2.00) (7.30)
 17.5 12.6 15.3 21.7 25.2 Average Speed per Hour 25.2 16.2 13.8 12.2 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			
SECOND CLASS		FIRST CLASS		Distance from Condon	Time-Table No. 72 December 15, 1929			Distance from Arlington	SECOND CLASS	
127 Mixed	107 Mixed	108 Mixed	128 Mixed							
Leave Daily Ex. Sun.	Leave Sun.	Arrive Mon.	Arrive Daily Ex. Mon.	STATIONS			Arrive Mon.	Arrive Daily Ex. Mon.		
5,260	WFP	10.00PM	11.15PM	0.0	D-R	CONDON	Cd	44.5	7.15AM	7.15AM
1,278		10.25	11.35	8.2		GWENDOLEN		36.3	6.35	6.35
1,515		10.40	11.50PM	12.2		SPEECE		32.3	6.20	6.20
1,533		10.55	12.05AM	15.9		CLEM		28.6	6.01	6.01
1,515	W	11.25	12.20	20.1		MIKKALO		24.4	5.40	5.40
1,400		11.50PM	12.35	24.8		BARNETT		19.7	5.20	5.20
662	W	12.15AM	12.45	28.5		ROCK CREEK		16.0	5.01	5.01
.122				30.8		SMYTHE		13.7		
1,504		12.45	1.10	37.2		SHUTLER		7.3	4.35	4.35
6,920	WFP	1.30AM	1.30AM	44.5	DN-R	ARLINGTON	Mx	0.0	4.05AM	4.05AM
		Arrive Daily Ex. Mon.	Arrive Mon.			(44.5)			Leave Mon.	Leave Daily Ex. Mon.

(3.30) (2.15) Thru Time (3.10) (3.10)
 12.7 19.8 Average Speed per Hour 14.0 14.0

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

WESTWARD			SHANIKO BRANCH			EASTWARD						
SECOND CLASS		Distance from Shaniko	Time-Table No. 72 December 15, 1929			Distance from Biggs	SECOND CLASS					
125 Mixed	123 Mixed		105 Passenger	106 Passenger	124 Mixed		126 Mixed					
Leave Tues., Thurs. & Sat.	Leave Mon., Wed. & Fri.	Leave Sun.	Arrive Mon.	Arrive Sun., Wed. & Fri.	Arrive Tues., Thurs. & Sat.							
3,385	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			7.40
902	s	8.35			17.2		KENT		52.5			7.25
650	f	8.55			23.9		BOURBON		45.8			7.15
1,370	WT	9.15	9.15PM	9.15PM	31.2	D-R	GRASS VALLEY	Vy	38.5	6.45AM	6.45AM	6.45
Spur	f	9.40	9.40	9.40	38.4		ERSKINE		31.3	6.10	6.10	6.10
2,422	W	10.20	10.20	10.20	42.7	D	MORO	Mr	27.0	5.50	5.50	5.50
834	f	10.35	10.35	10.35	45.8		DE MOSS		23.9	5.35	5.35	5.35
Spur	f	10.50	10.50	10.50	49.7		NISH		20.0	5.20	5.20	5.20
Spur	11.00	11.00	11.00	50.5			HAY CANYON		19.2	5.15	5.15	5.15
Spur	11.20	11.20	11.20	54.1			SANDON		15.6	5.00	5.00	5.00
1,010	s	11.30PM	11.30PM	11.30PM	55.5		KLONDIKE		14.2	4.55	4.55	4.55
1,758	W	12.05AM	12.05AM	12.05AM	60.0	D	WASCO	Wa	9.7	4.30	4.30	4.30
Spur	12.25	12.25	12.25	62.6			SINK		7.1	4.20	4.20	4.20
565	f	12.35	12.35	12.35	64.5		THORNBERRY		5.2	4.10	4.10	4.10
6,656	WFYP	1.15AM	1.15AM	1.15AM	69.7	DN-R	BIGGS	Bx	0.0	3.50AM	3.50AM	3.50AM
		Arrive Wed., Fri. & Sun.	Arrive Tues., Thurs. & Sat.	Arrive Mon.			(69.7)			Leave Mon.	Leave Sun., Wed. & Fri.	Leave Tues., Thurs. & Sat.
	(5.30)	(4.00)	(4.00)	..... Thru Time (2.55)	(2.55)	(4.30)				13.2	13.2	15.1
	12.4	9.6	9.6	..... 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					
SECOND CLASS		Distance from Heppner	Time-Table No. 72 December 15, 1929			Distance from Heppner Jct.	SECOND CLASS			
129 Mixed	109 Passenger		110 Passenger	130 Mixed						
Leave Daily Ex. Sun.	Leave Sun.	Arrive Mon.	Arrive Daily Ex. Mon.							
2,867	WFTY	10.00PM	11.30PM	0.0	D-R	HEPPNER	Hr	45.2	6.30AM	6.30AM
1,029		10.30	11.50PM	8.9		LEXINGTON		36.3	6.00	6.00
471	P	10.45	12.05AM	14.2		JORDAN		31.0	5.45	5.45
1,150	W	11.20	12.15	16.9		IONE	On	28.3	5.30	5.30
132		11.35	12.25	20.0		McNAB		25.2	5.15	5.15
835		11.55PM	12.38	25.4		MORGAN		19.8	5.02	5.02
263		12.15AM	12.43	27.5		MORSIL		17.7	4.55	4.55
330	W	12.30	12.52	30.7		CECIL		14.5	4.45	4.45
158		12.40	1.00	34.3		EWING		10.9	4.35	4.35
734		12.55	1.10	38.4		RHEA		6.8	4.25	4.25
136				42.2		HARRIETT		3.0		
1,780	TP	1.25AM	1.25AM	45.2	D-R	HEPPNER JCT.	Wj	0.0	4.00AM	4.00AM
		Arrive Daily Ex. Mon.	Arrive Mon.			(45.2)			Leave Mon.	Leave Daily Ex. Mon.

(3.25) (1.55) Thru Time (2.30) (2.30)
 13.2 23.5 Average Speed per Hour..... 18.1 18.1

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

FIRST DIVISION

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.....	Enginemen's Register Room
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

SPECIAL RULES
ADDITIONAL FLAG STOPS FOR REVENUE PASSENGERS, MAIL AND EXPRESS

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 engine men as a means of identifying extra trains.

83 (F). Trains are not required to receive clearance card (Form 2643) as per Rule 83 (A), as follows:
At Argo, all eastward 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 eastward Sixth sub-division trains.

83 (G). Clearance card (Form 2643) must be received, as follows:
At Black River, by all eastward 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.

83 (H). 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.

83 (I). 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 eastward 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.

83 (J). 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.

83 (K). 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 (L). 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 Jet., 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 (M). 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 (N). 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).

83 (O). 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 (P). 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 (R). 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:
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
	Rhea	Clem	Grass Valley	Olympia
Sherman	Ewing	Speece	Bourbon	Galvin
The Dalles	Cecil	Gwendolen	Kent	Helsing Jct.
Hood River	Morsil	Condon	Wilcox	Independence
Troutdale	Morgan	Thornberry	Shaniko	South Montesano
East Portland	McNab	Sink	Fargher	Montesano
Portland	Ione	Wasco	Maupin	Preachers Slough
Kenton	Jordan	Klondike	North Jct.	Cosmopolis
Peninsula Jct.	Lexington	Sandon	South Jct.	Aberdeen
North Portland Jct.	Heppner	Hay Canyon		Primo
	Heppner Jct.			

(for Heppner Branch only)

93 (S). On parallel tracks between Portland and East Portland or Harding St., and between Millroad and St. Johns Jet., 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 (A). 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."

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.
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.

SPECIAL RULES

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

These instructions will not apply on the Shaniko, Condon and Heppner Branches. 98 (T). After stop has been made for railroad crossings at grade engineman will sound proceed signal as per Rule 14 (B) before proceeding.

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 (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 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 tippie, 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 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, —for eastward trains;
 (250 feet east of depot)
 At South Montesano, wye switch —for west leg of wye.
 on Montesano Branch,
 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:
 (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 caboose.)

Location	Maximum Speed Miles Per Hour		Remarks
	Psg.	Frt.	
At any point.	60	35	
At any point.	50	35	
At any point.	45	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	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.

Location	Maximum Speed Miles Per Hour		Remarks
	Psg.	Frt.	
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 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	
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.	25	25	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.—No. 24 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.

FIRST DIVISION

221 (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.

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

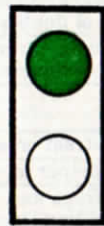
- Arlington —all trains;
- Hood River —all trains;
- Independence —all trains;
- Cosmopolis —all trains;
- Aberdeen —all eastward trains.

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

Automatic Train Control Rules Definition

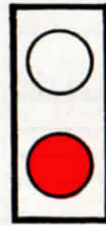
302. AUTOMATIC TRAIN CONTROL: A method of mechanically controlling train movements, independent of the engineman, should it become necessary.

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.

SPECIAL RULES

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 employes 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.

Employes 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.

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), 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 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

Railroad Surgeons are located as shown below:

NAME	TITLE	PLACE	TERRITORY
Donald H. Jessop	Chief Surgeon	Portland, Ore.	
M. K. Hall	Assistant Chief Surgeon	Portland, Ore.	
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.
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. & G. V. Vandervert	District Surgeons	Bend, Ore.	Sherman to Bend.
C. L. Poley	District Surgeon	Grass Valley, Ore.	Biggs to Shaniko.
J. W. Donnelly	District Surgeon	Arlington, Ore.	The Dalles to Umatilla and Arlington to Condon.
J. V. Wilhelm	District Surgeon	Condon, Ore.	Arlington to Condon.
A. D. McMurdo	District Surgeon	Heppner, Ore.	Heppner Jet. to Umatilla.
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.

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.

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 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 "
Sherman to North Jct.	6000 "	3000 "
North Jct. to Bend	3000 "	
Biggs to Shaniko	3000 "	
Arlington to Condon	3000 "	
Heppner Jet. 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.

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

865 (A). Drover cars, occupied or unoccupied, must be placed in trains next ahead of cabooses.

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 (See Item 865 (R), Consolidated Superintendent's Bulletin Orders).

Switching must not be done with drover cars, except in handling to or from trains.

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.

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 (B). 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 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.

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

MAIN LINE

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		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
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	3500	3200	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

BRANCHES

TYPE OF ENGINES	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					WESTWARD		EASTWARD			WESTWARD			EASTWARD							
		Ho-quiam to Cos-mopolis	Cos-mopolis to Centralia	Centralia to Cos-mopolis	Cos-mopolis to Ho-quiam				Sherman to North Jct.	North Jct. to South Jct.	South Jct. 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	15 145 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	15 172 30	725 to 729																											
C 57	22 179 30	730 to 768	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																												
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 207SDB 30	2103, 2138, 2147 2149, 2151, 2152 2154	1870	5465	6050	2405		1800																					

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

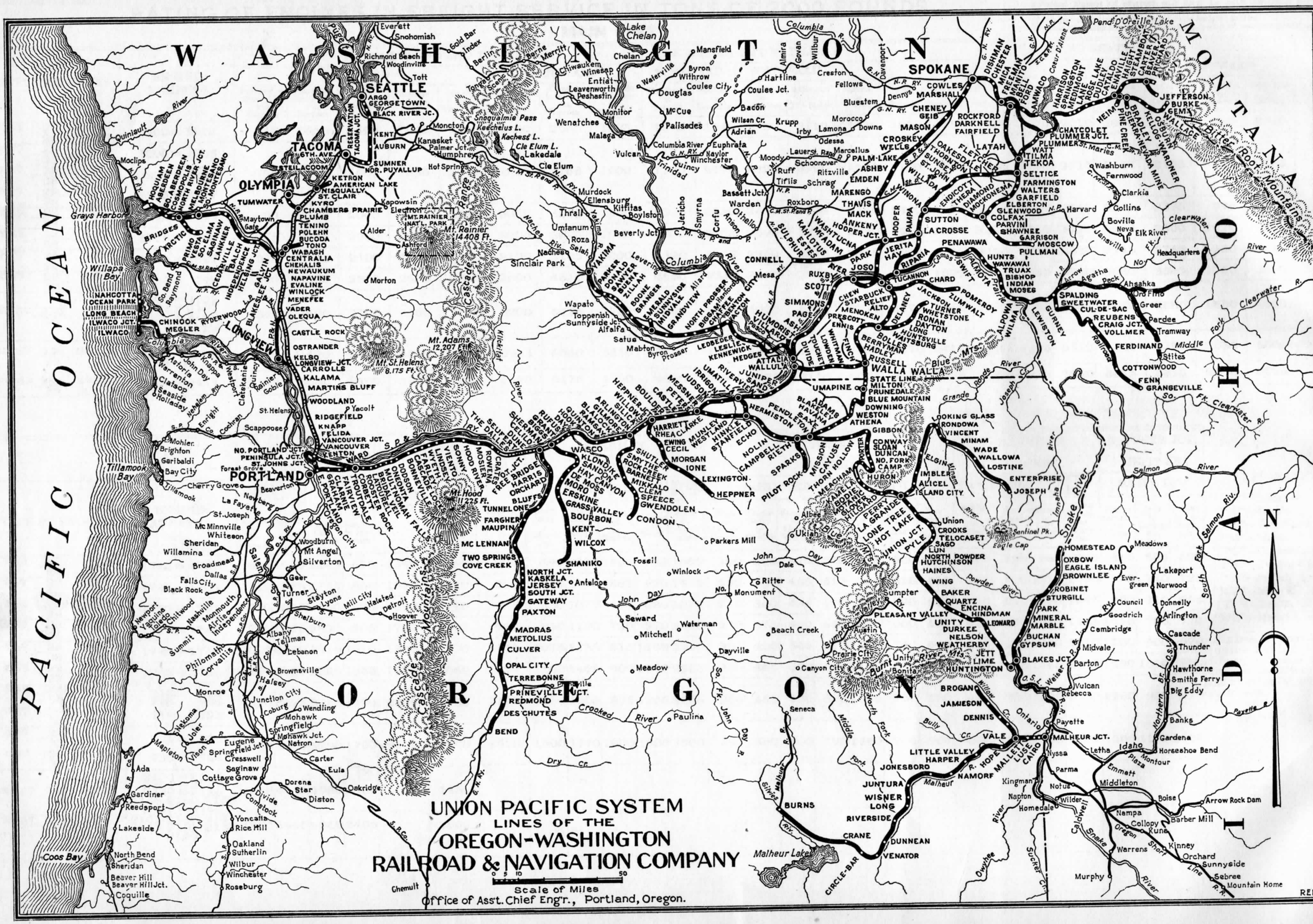
EXAMPLE: Consolidation engine having 57 inch drivers, cylinders 22 inch diameter and 30 inch stroke, and weighing 187,000 pounds on drivers:

C 57 22/30 187



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

PACIFIC OCEAN



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

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