

Spokane, Portland & Seattle Railway Co.
Oregon Trunk Railway
Oregon Electric Railway
United Railways Co.
Gales Creek & Wilson River R. R. Co.

Special Instructions No. 3

In Effect 12:01 A. M. Pacific Time

Saturday, August 1, 1942

**These instructions govern Current Time Table.
Read carefully and be positive that you have
the Current Time Table, also copy of Current
Special Instructions.**

**E. H. SHOWALTER,
Superintendent**

**M. C. LA BERTEW,
Vice President and General Manager**

TERMINALS SUB-DIVISION

1. All transfers operating between Lake Yard and Portland, in either direction, without cabooses, between sunset and sunrise, or when weather conditions obscure vision, will display red lantern on rear end of the rear car in transfer.
2. **At Portland**—Between end of double track at 10th Avenue and Union Depot, trains and engines will be governed by signals from switch tenders. Westward trains and engines must not pass clearance point at end of double track until proceed signal from switch tender is received.

Eastward trains from S. P. & S. Ry. yard will use westward main track from 15th Avenue to 17th Avenue under protection of flagman, thence through cross-over to eastward main track. 17th Avenue cross-over is not protected by automatic signal. Switches at both ends of 15th Avenue connection must be kept set and locked for westward main track.

Trains from S. P. & S. Ry. yards running against current of traffic to 17th Avenue cross-over must not send trainmen to 17th Avenue to line switches and hold opposing trains until their train is actually ready to move.

Trains from S. P. & S. Ry. yards must not occupy westward main track while waiting for outbound passenger trains on the eastward main track to pass. Trainmen sent to 17th Avenue to line switches after train is ready to depart, will open both cross-over switches so that outbound trains may cross over into the current of traffic without delay.

S. P. & S. Ry. yard crews and engines in charge of hostlers will not enter upon the track of the Northern Pacific Terminal Company in the vicinity of 9th Avenue without first getting a signal from the N. P. T. Co. switch tender, and in no case will S. P. & S. Ry. employes handle the switch to the connection between the S. P. & S. Ry. and the N. P. T. Co., unless the switch tender should be absent, and then only when it can be plainly seen that there are no N. P. T. Co. engines or trains moving in the vicinity of the connecting track switch.

All freight trains entering S. P. & S. Ry. yard, except trains with Classes 01, 03, and G. N. Class 01 engines, will, unless specifically advised to the contrary, head in on 21st Avenue lead, stop north of 14th Avenue and call for track. Trains handling passenger equipment only will head in at 14th Avenue and call for track.

Yard crews when switching over the S. P. Co. track at East First and Main Streets, Portland, must, before leaving the crossing, assure themselves that signals have cleared for the S. P. Co. tracks so that S. P. Co. trains will not be delayed due to failure of these signals to clear. Employes handling the switch lock lever must be positive that it is in proper position when they have completed their work in that vicinity. When the lever is placed in normal position and door of the box closed, the signals on the S. P. Co. will clear. If for any reason, after lever has been restored to normal position the signals on the S. P. Co. tracks fail to clear, the train dispatcher must be notified immediately.

On N. P. T. Co. trackage, trains and engines using tracks 1 to 10 inclusive must run at restricted speed when passing a train receiving or discharging passengers and must not cross under "High Shed" at passenger station without receiving proceed signal from the Station Master or his Assistant. In making this movement with yard engines, a member of the crew (and not more than one) must ride on leading footboard of the engine and when the cars are being pushed must ride on front of leading car in direction engine is moving. A flagman must precede the movement of yard engines over crossing in front of the baggage room unless a proceed signal is given by the Station Master, Baggage Master, or their Assistants. Trains and engines must not exceed 10 MPH between 17th Avenue and passenger station, and 6 MPH between north end of passenger station and Front Avenue. Interlocking at south end of freight and passenger yards governs movement of all trains entering or leaving N. P. T. Co. Yards.

When the Home Signal is at "Stop" the following signals will be used to call for desired route:

For Albina ———— °
 For Troutdale ————
 For SP Main Line ° ————
 For SP Yard ° ———— °
 For E. 2nd St. ° ° ————
 For SPS to E. Side ° ° ————

When the Home Signal is at "Proceed" the whistle must not be sounded. When conditions are favorable use hand or lantern signals for route desired, omitting whistle signals.

3. **Engine Restrictions**—At Portland, Engines Classes 01, 03, and G. N. 01 must not be operated over 21st Avenue lead.

Sanding flues of engines between Nicolai Street, Portland and Lake Yard is prohibited.

G. N. Engines Classes Q-2 and 04 must not head in on track No. 1, Middle Yard at Portland.

4. **Impaired Clearance**—Trolley wire in the "30" and "40" yards at Portland will not clear man on top of high cars.

All tracks in S. P. & S. Ry. yards, Portland, have impaired clearance and will not clear man on side of car.

5. **Derails**—

Portland —W. P. Fuller & Company spur.
 Willbridge —Union Oil Co. lead.
 Standard Oil Co. track No. 1.
 Bethlehem Steel Co. spur.
 Kern and Kibbe spur.

6. **Speed Restrictions**—

Between Lake Yard and 17th Avenue, 20 MPH.
 Between 17th Avenue and umbrella sheds Union Station, 10 MPH.
 Umbrella sheds to Union Station stop, 6 MPH.
 Over bridges between Vancouver and Willbridge, 30 MPH.
 Over draw spans and rail locks at ends thereof, 10 MPH.

7. **Automatic Block**—Between MP 2.0 and MP 10, both tracks.

VANCOUVER DIVISION

FIRST SUB-DIVISION

1. **Speed Restrictions**—

	M.P.H.	
	Pass.	Frt.
Maximum Speed.....	65	40
Over 8th St. Crossing, Vancouver.....	8	8
Through Camas (City Ordinance).....	20	20
To exchange U. S. mail, Trains 1 and 2.....	20	----
Between first crossing east of depot and overhead bridge west of depot, Washougal (City Ordinance).....	30	25
Between MP 45.7 and MP 106.1.....	60	40

2. Derails—

- Camas —West end house track.
 —East end Converting Plant spur.
 —On paper mill New Spur, 500 feet from house track switch.
- Washougal —West end house track.
- Stevenson —Lindis spur, 705 feet from house track switch.
- Underwood —Industry track, clearance point west end.
- Lyle —West end Union Meat Co. spur.
 —East end outfit spur.

3. Impaired Clearance—

Army building located paralleling end of reservation spur, Vancouver barracks.

4. Automatic Block Districts and Signal Locations—

Between	East Signal	West Signal
MP 33.9 and MP 35.6 Tunnel 1	MP 33.9	MP 35.6
MP 67.4 and MP 70.3 Tunnels 2 to 6	MP 67.4 MP 68.4	MP 70.3
MP 81.0 and MP 84.9 Tunnels 7 to 10	MP 81.0 MP 82.4	MP 84.9 MP 83.7
MP 92.8 and MP 97.9	MP 92.8 MP 94.2 MP 95.0	MP 97.9 MP 96.7

5. Engine Restrictions—Engines Classes E-1, Z-6, R-1 and N-3 not permitted to go beyond the frog of any spur or industry track except the following tracks:

- North Bonneville, house track.
- Underwood, industry track.
- Bingen-White Salmon, cross-over and 280 feet of the industry track west of cross-over.
- Lyle, all tracks except outfit spur and house track.

SECOND SUB-DIVISION

1. Speed Restrictions—

	M.P.H.	
	Pass.	Frt.
Maximum Speed.....	65	45
Trains handled by Engines Classes E-1, Z-6, R-1 and N-3 between MP 207.3 and S. P. & S. Jct.....	45	40
S. P. & S. Jct. Switch.....	15	15

2. Engine Restrictions—At Pasco, enginemen handling S. P. & S. engines 500 to 507, inclusive, while heading into turn-outs in train yard, will not work steam until pony truck has passed over frog.

Engines Classes E-1, Z-6, R-1 and N-3 not permitted to go beyond the frog of the following tracks.

Goodnoe pit tracks; Paterson, Hover and Finley, industry tracks.

3. Derails—

- Sundale —east end of industry track.
- Plymouth —west end of industry track.
- Mottinger —west end of spur.
- Hover —east end of industry track.
- Kennewick —east end of industry track.

4. Automatic Block Districts and Signal Locations—

Between	East Signal	West Signal
MP 107.8 and MP 111.1	MP 107.8	MP 110.1
	MP 108.6	MP 111.1
MP 193.5 and MP 195.5	MP 193.5	MP 195.5

5. The S. P. & S. register at Pasco will be used in compliance with Rule 83(A) in lieu of the register at S. P. & S. Junction, the latter of which is a register station for all S. P. & S. trains.

6. At Kennewick, the sign reading "End of bonded circuit," located 825 feet east of overhead bridge 228.4, governs circuit in connection with signal operation between Pasco and Kennewick. Eastward trains holding main track to meet opposing trains must remain west of this sign until the opposing train arrives in order to avoid fouling circuit.

THIRD SUB-DIVISION

1. Between Pasco and Ainsworth Jct.—

All trains will be governed by S. P. & S. Ry. time table and rules.

2. Between Ainsworth Jct. and Marshall Jct.

Northern Pacific Ry. trains using S. P. & S. Ry. track between Ainsworth Junction and Marshall Junction will be governed by S. P. & S. Ry., Vancouver Division, time table and rules.

3. At Snake River Junction—

Normal position of junction switch is for S. P. & S. Ry. 3rd sub-division. Trains from the Northern Pacific Ry. must not occupy S. P. & S. Ry. main track until after obtaining Register Check with clearance Form A from the operator at Snake River, authorizing movement.

4. At Scribner.

Normal position of junction switch is for the line to Fort Wright.

5. At Marshall Junction—

Junction switch is governed by interlocking signals and rules.

6. At Fort Wright—

Junction switch is governed by interlocking signals and rules.

7. Helper District—

Between Spokane and Mock.

8. Engine Restrictions—

Engines Classes E-1, Z-6, R-1 and N-3 not permitted to go beyond the frog of the following tracks:

- Snake River —Farmer's Spur and Pit tracks
- Burr Canyon—Spur
- Farrington —Spur
- Kahlotus —Town Spur
- McAdam —Elevator Spur
- Washtucna —Hole Track
- Lantz —Stockyard Track
- McCall —Stockyard Track
- Lamont —Oil Spur, Cinder track and Warehouse track
- Amber —Stockyard Track
- South Cheney—House Track
- Scribner —Nemours Spur
- Ft. Wright —Outfit Spur

9. Speed Restrictions—		Pass.	Fr.
Maximum Speed.....		60	40
Passing Snake River Gravel Pit.....		25	25
Between Kahlotus and Snake River Jct.....		40	25
West Switch Scribner and G. N. connection Ft. Wright...		45	40
West Switch Scribner and N. P. Ry. connection Marshall Junction.....		45	40
Trains handled by Engines Classes E-1, Z-6, R-1 and N-3, maximum at any point.....		55	40

10. Commercial Tracks Not Indicated in Time Table—

	Miles from Portland	Car Capacity	Switch at	Station Number
Burr Canyon Spur....	265.9	5	West end	266
Harder, Stockyard Siding.....	280.7	18	Both ends	281
Washtucna Industry..	292.4	156	East end	292
Nemour's Powder Spur	368.6	48	West end	369

11. Work Tracks Not Show as Stations—

	Miles from Portland	Car Capacity	Switch at
Outfit Spur No. 374.6.	374.6	9	East end

12. Derails—

Levey	—west end of spur.
Redd	—west end of spur.
Snake River	—west end of elevator spur.
Burr Canyon Spur	—west end.
Kahlotus	—east end of house track.
Harder	—west end of stockyard siding.
McAdam	—east end of spur.
Washtucna	{ —west end of house track. east end of empty coal track.
Hooper	—west end of industry track.
Lantz	—west end of industry track.
Lamont	{ —west end of No. 2 track. east end of empty coal track. at top of heavy grade on oil spur.
Stoner	—west end of spur.
South Cheney	—east end of industry track.
Nemour	—2 derails (One 820 feet east of H. B. of spur.) (One 1600 feet east of H. B. of spur.)
Outfit Spur No. 374.6	—east end.

13. Automatic Block Districts and Signal Locations—

Between	East Signal	West Signal
"A" Street, Pasco and MP 234.3	Pasco, "A" Street and Yard lead	{ MP 234.3, 350 ft. E. of Ainsworth Junction on S. P. & S.
	MP 231.8	{ 350 ft. E. of Ainsworth Junction on N. P. 9th Sub- division
	MP 233.2	{ MP 232.5 MP 231.1
MP 271.2 and MP 272.5 (Tunnel 16)	MP 271.2	MP 272.5
MP 275.5 and MP 276.9 Tunnel 17		MP 275.5 MP 276.9
MP 358.6 and MP 360.0 So. Cheney		MP 358.6 MP 360.0
MP 366.2 and MP 366.7 Scribner		MP 366.2 MP 366.7
MP 375.6 and MP 376.7 Tunnel 19		MP 375.6 MP 376.7

14. The following instructions will govern AUTOMATIC BLOCK SIGNAL OPERATION between Pasco and Ainsworth Junction and OPERATION OF DUAL CONTROL SWITCH at Ainsworth Junction:

All trains and engines will be governed by block signals, the indication of which will supersede the superiority of trains for both opposing and following movements on the same track. Freight trains and engines must avoid delay to first-class trains and passenger extras as far as possible.

At Pasco—"STOP" signal located 50 feet east of "A" Street governs eastward movements of passenger trains and movements direct from Northern Pacific Third Sub-division. The normal indication of this signal is "STOP" and eastward trains or engines approaching this signal will be governed by the indication received when entering approach circuit.

Eastward "STOP" signal governing movement from the freight yard to the S. P. & S. Third Sub-division is a semi-automatic signal controlled from the telegraph office. Normal indication of this signal is "STOP" and eastward trains will not leave yard tracks until signal has been changed to "APPROACH" or "CLEAR" indication.

Ainsworth Junction—Switch at Ainsworth Junction is dual control. Normal position is for the S. P. & S. and normal movements are controlled by operator at Pasco. Trains approaching this switch and finding the "HOME" signal at "STOP," will communicate with dispatcher through operator at Pasco as per rule 509(A), and then, if there are no impending movements, examine the switch, and if not in proper position for their movement, first will throw "POWER LEVER," then operate switch with "HAND-THROW" lever. If signals still indicate "STOP," train may proceed complying with automatic block signal rules. "POWER LEVER" must not be returned to normal position until after final movement over switch is made. Both "LEVERS" must be left in normal position and locked.

"STOP AND PROCEED" Signal No. 233.2, located just west of Ainsworth Junction, is a two-arm, two-position signal, and is the last signal for eastward movements. The top arm governs movements to S. P. & S. Third Sub-division, and the lower arm governs movements to N. P. Ninth Sub-division.

"STOP AND PROCEED" Signal No. 234.3 governing S. P. & S. westward train movements is located 6000 feet east of junction switch and governs approach to "STOP" signal located 350 ft. east of junction switch, on S. P. & S. main track. A westward train approaching these signals will be governed by the signal indication received upon entering the clearing section, which extends 8500 feet east of the "STOP" signal. "STOP" signal located 350 feet east of Ainsworth Junction on N. P. Ninth Sub-division, governs movements from N. P. Ninth Sub-division to S. P. & S. main track.

Engines using roundhouse tracks Nos. 20 and 38, East Panama track switch at Panama Junction, or the switch located 83 feet east of Panama Junction switch, after having entered these tracks and cleared the circuit, before again opening the switch and making use of the main track, must observe Rule 513.

FOURTH SUB-DIVISION

(GOLDENDALE-LYLE)

- Speed Restrictions—** M.P.H.

Between Goldendale and Klickitat.....	20
Between Klickitat and Lyle.....	25
On sharp curves.....	15
Klickitat, over road crossing about 500 feet east of depot.....	5
- Commercial Tracks not indicated in Time Table—**

	Miles from Lyle	Car Capacity	Switch at	Station Number
Doubling Spur.....	1.6	8	East end	G 2
Klickitat Springs.....	15.8	10	East end	G 16
- Derails—**

Wahkiakus—west end of siding.

OREGON TRUNK RAILWAY

1. **At O. T. Junction**—Normal position of switch is for Oregon Trunk Ry.
2. **At Celilo Wye**—Normal position of switch is for Oregon Trunk Ry.
3. **Westward Freight and Mixed Trains** will stop at Madras and turn up retainers and stop at South Junction and turn down retainers. Running brake tests will be made on westward trains at point one mile west of Madras.

4. **Speed Restrictions**—

	M.P.H.	
	Pass.	Frt. and Mixed
Eastward trains from Union Pacific connection, Oregon Trunk Junction through spring switch.....	15	15
Between Wishram and MP 87.....	35	30
Between MP 87 and MP 98.....	25	20
Between MP 98 and Madras.....	35	30
Between Madras and Bend.....	45	40

Further speed reductions to be governed by restriction signs.

5. **Derails**—

- Sherar —west end siding.
- Maupin —west end house track.
- Gateway { —west end house track.
—west end siding.
- Paxton —west end siding.
- Madras { —east end oil spur.
—west end house track.
—west end siding.
- Agency —west end.
- Metolius —west end siding.
- Prineville Jct.—west end siding.
- Redmond { —east end house track.
—west end house track.
- Deschutes —west end industry track.
- Bend { —west end depot spur.
—west end siding.
—west end house track.
—east end Union Oil spur.
—west end Standard Oil spur.
—east end Pine Tree spur.

6. **Engine and Bridge Restrictions**—

Engines Classes 01, 03, 06, Z-6, R-1 and N-3 will be spaced not less than ten cars apart in trains. When these engines are moving light coupled, they will be separated when passing over steel bridge No. T-105.6, four-tenths mile east of Madras and steel bridge No. T-88.6, 2.8 miles east of South Junction. All engines, except Classes Z-6, R-1 and N-3, being turned on wye at Bend will head around west leg of wye and back around east leg of wye. Engines Classes Z-6, R-1 and N-3 may be turned in either direction.

Engines Classes Z-6, R-1 and N-3 not permitted to go beyond the frog of any spur or industry track except the following tracks:

- Metolius —Turn table lead and storage track No. 1.
- Redmond —Union Oil Spur, Standard Oil Spur, Team track from west end to stock yards; storage track.
- Deschutes —Industry track.
- Bend —Storage tracks Nos. 1 and 2, Engine house tracks and Wye.

Engines Classes Z-6, R-1 and N-3 not permitted to go beyond the frog of the following sidings: Moody, South Junction, Gateway, Paxton Madras.

7. **Celilo Draw Bridge** is closed as a draw span except when actually in use to permit passage of navigation; stop signs have been removed and it will not be necessary for trains to stop except when flagged. When draw is to be opened, it will be protected in accordance with Rule 728, (Consolidated Code). Government order permits closing of this draw requiring vessels desiring movement through bridge to notify Chief Dispatcher of S. P. & S. Railway at Portland, the time vessel desires passage through the draw; Chief Dispatcher will then instruct section foreman at Wishram to be on hand at Celilo draw at proper time, and after the flagmen have been placed in accordance with Rule 728 (Consolidated Code), and vessel is ready to pass through, will remove the angle bars which will allow the draw span to be opened. After vessel has passed through draw and the angle bars have been replaced, flagmen will be recalled and section foreman and flagmen released.

PORTLAND DIVISION FIRST AND SECOND SUB-DIVISION (PORTLAND-SEASIDE)

1. **At United Junction**—Spring switch, normal position for United Railways main track. Westward first sub-division (Astoria Line) trains will stop to line switch for their route.
2. **At St. Helens**—Trains must not block highway crossing while taking water.
3. **At Warrenton**—Normal position of switch is for 1st sub-division.
4. **At Fort Stevens**—Normal position of switch is for track leading to barracks.
5. **Draw Bridges**—
Clatskanie River, MP 62.7 center of draw.
Blind Slough, MP 84.8 center of draw.
John Day River, MP 94.8 center of draw.
Youngs Bay, MP, 102.6 center of draw.
Skipanon Creek, MP 105.5 center of draw.
6. **Telegraphones**—Located at: Goble (Section House); Rainier; Pyramid; Mayger; Clatskanie; Bradwood; Westport; Clifton; Knappa; Van Dusen; Astoria.

7. **Speed Restrictions**—

	M.P.H.	
	Pass.	Frt.
Maximum speed	40	30
Through Linnton	20	20
Hageman Moorage crossing, located 462 feet west of Bridge A-9.3	15	15
Through Scappoose	20	20
Over P. & S. W. Railway crossing, Scappoose	20	20
Through Rainier (City Ordinance).....	8	8
Rainier, between a point 700 feet east of Standard Oil spur and east end of pavement.....	8	8
Between westward "Resume Speed" sign approximately 265 feet west of west end of curve No. 163 near east end of bridge 98 and Warrington.....	25	25
Over Youngs Bay draw span, bridge 102.6, west of Astoria	12	12
On Pacific Avenue, Hammond.....	8	8
Between Warrenton and Seaside.....	30	20
Between Warrenton and Port Stevens.....	15	15

8. **Commercial Tracks Not Indicated in Time Table—**

	Miles from Portland	Car Capacity	Switch at	Station Number
Gasco.....	5.6	28	West end	A 6
Gasco.....	5.6	25	East end	A 6
Harbor Track.....	9.8	57	East end	A 10
Trojan.....	40.7	24	East end	A 41
Reeds.....	45.2	5	East end	A 45
Van Vleet Spur.....	47.0	7	West end	A 47 A
Hickox Spur.....	47.3	12	East end	A 47 C
Tongue Point.....	96.2	19	East end	A 96
Carnahan Spur.....	110.3	3	West end	A 110
Neawannah Spur.....	116.7	6	East end	A 117
Warrenton Clay Spur..	106.3	54	West end	FS 1
Point Adams Spur....	108.3	5	East end	FS 3

9. **Derails—**

- Willbridge —Union Oil Co. lead
Standard Oil Co. track No. 1
Bethlehem Steel Co. spur.
Kern and Kibbe spur.
- Linnton —Sunset Oil Co. spur No. 3.
General Petroleum spur No. 2.
C. E. Gunderson spur.
American Brake Shoe Co. spur.
- St. Helens —East end of siding.
Standard Oil Co. spur.
- Deer Island —spur.
- Marshland —spur.
- Tongue Point—Mill Creek spur.
Naval Base spur.
- Camp Clatsop—spur.

10. **Impaired Clearance—**

- At Astoria, overhead crossing over port dock tracks leading from Pier 1 to Pier 3 have but 17 feet clearance from top of rail. Trainmen must use care when switching on this track.
- At Gasco, three car lengths on both sides of stub end of the loading track.

11. **Engine Restrictions—**

- Engines Class F-1 not permitted on the following tracks:
- Trojan —spur track.
- Westport —beyond lower dock on spur.
- Wauna —Wauna Lumber Co. spur No. 2.
- Astoria —Hanthorne cold storage spur and Port dock tracks.
Between Astoria and Seaside, double heading is prohibited.

OREGON ELECTRIC RAILWAY

- Eastward trains handling logs on flat cars will stop at Melas and make inspection of all such loads, and know before proceeding, that logs are riding properly for safe movement through the City of Salem.
- Cars handled in trains or by yard engines in city streets, must have air coupled, except when actually switching.
- At Portland**—Cars exceeding 44 feet in length must not be handled between First Avenue and Flanders Street and Twelfth Avenue.
Cars must not be spotted on Flanders Street between Second and Third Avenues.
Cars spotted on city streets must be protected by two red lanterns on each end of end car.

- At Salem**—All cars delivered by the O. E. Ry. to the S. P. Co. interchange track, between 4:30 P.M. and 7:30 A.M., must be protected by two red lanterns placed on each end of end car.
Cars exceeding 44 feet in length must not be placed on Fruit Union Spur. When necessary to place or remove 50-foot cars on hop track it will be necessary to handle such cars separately.
- At Albany**—Both switches to cross-over, S. P. interchange track, when not in use, must be left lined for straight track.
On account of heavy curvature, the placing of double or triple loads on House track and 50-foot cars on Sender's Spur is prohibited.
- At Lebanon**—Junction switch, O. E. Ry., is located at S. P. Co. MP 688.9. Normal position of switch is for S. P. main track. Normal indication block signal on O. E. track is "STOP" and will change to "PROCEED" when switch is opened, providing S. P. main track is clear between block signals located on both sides of junction switch.
Telephone connected with telegraph office, S. P. Co., Lebanon, is located in booth near junction switch.
In addition to a clear block signal, eastward O. E. Ry. trains must obtain permission from operator, Lebanon, before entering S. P. Co. main track. Conductors of westward trains must immediately report to operator by telephone when their trains have cleared S. P. Co. main track.
- At Eugene**—Cars 50 feet or longer not permitted on Twin Oaks Warehouse track.
- Trolley Poles** must always be lowered from trolley wire by means of a rope. To lower trolley pole from trolley wire by getting on top of motor car or engine and taking hold of trolley pole by hand is not permitted; to do so is dangerous and may prove fatal. Trolley poles on double end control cars must be kept under hook when not in use and must not be left suspended by retriever rope.
When trolley pole leaves wire or it becomes necessary to change it from one wire to another, controller must be returned to the "off" position, and speed of train reduced to five miles per hour; controller to remain in the "off" position until proceed signal has been given by person replacing or adjusting trolley pole.
- Electric Switches** used for cutting power off of trolley wire, are located at the following industrial spurs and tracks. These switches must be closed by conductors or engine foremen before using track and must be opened and locked in open position after work is finished. Before closing switch, conductors and engine foremen must be sure that no one is working where they might come in contact with trolley wires:
S. P. & S. "30" yard (wires east of the east line of 12th Ave.) Portland.
On pole east side 12th Avenue between Kearney and Johnson Streets.
Tracks 40 and 41 in 12th Avenue yard, Portland; on pole near telephone booth, S. P. & S. cross-over.
Crane & Co. Spur, 12th Avenue, Portland; on pole at switch.
Gravel Pit spur, Salem; on pole east end of spur.
Hunt Bros. spur, Salem: on pole 100 feet east of switch.
Larmer Warehouse spur, Salem: on pole in front of warehouse.
Union Fruit spur, Salem: on pole northeast corner Trade and High streets.
Spaulding Lumber Company's spur, Salem: on pole near east end of spur.
Terminal Ice and Cold Storage Company, Salem: on pole near center of spur track.
Terminal Ice and Cold Storage Company spur, Hillsboro: on pole near center of spur.

An interlocked electric track and trolley switch is located on the Gilmore Oil and General Petroleum spur at Albany; when open, this switch cuts off both the track and trolley from the main track. When using this spur, it will be necessary to close switch which is operated by a single lever and must not under any circumstances be operated under load. To avoid the possibility of this switch being opened under load, it must never be opened until after the engine has cleared the spur and the trolley pole of the engine has been changed from the spur to the main track trolley wire.

10. **Section Breakers** have been cut in trolley wires at S. P. Co. bridge just north of Tualatin, one breaker about fifty feet on each side of the bridge. Normally the section between these breakers will be kept "dead" and motormen should shut off power and coast under the "dead" section. In the event train stalls on "dead" section, a switch is located on pole just west of bridge to make "dead" section alive. Switch to again be opened after movement has been completed.

11. **Interchange Tracks** with S. P. Co. are located at Portland, Salem, Albany and Lasen.

12. **Instructions Governing Operation over S. P. Co. Track Between Greton and Beburg—**

Movements of S. P. Co. and O. E. Ry. trains or engines operating between Greton and Beburg, on the West Side Branch, will be governed by block signal indications which supersede the superiority of trains.

Normal position of junction switches at Greton and Beburg is for S. P. Co. movements.

Distant signal 7754 located 2316 feet west of Beburg and home signal 7758 located 306 feet west of Beburg junction switch, govern movements from S. P. Co. tracks.

Distant signal 7797, located 3000 feet east of Greton and home signal 7793 located 225 feet east of Greton junction switch, govern westward movements from S. P. Co. tracks.

Home signal 7756 located 306 feet east of Beburg junction switch governs westward movements from O. E. Ry. tracks.

Home signal 7795 located 225 feet west of Greton junction switch governs eastward movements from O. E. Ry. tracks.

Signal 7772 is an intermediate home signal located between Beburg and Greton, governing eastward movements for S. P. Co. and westward movements for O. E. Ry. Signal 7779 is an intermediate home signal located between Breton and Beburg, governing westward movements for S. P. Co. and eastward movements for O. E. Ry.

Normal position of block signals 7793 and 7795 at Greton is "STOP." Normal position of block signal 7758 at Beburg is "CLEAR" for movements from S. P. Co. and signal 7756 is "STOP" for movements from O. E. Ry.

Westward O. E. Ry. trains must stop at signal 7756 and Eastward O. E. Ry. trains must stop at signal 7795. If switch indicators at junction switches indicate "BLOCK CLEAR" switches may be set for movement from O. E. Ry. track.

If switch indicators at junction switches indicate "BLOCK OCCUPIED" wait fifteen (15) minutes, and if no train or engine is seen or heard approaching send a flagman ahead immediately, wait five (5) minutes, then line switch and if signal does not indicate "PROCEED" wait additional five (5) minutes before following flagman, keeping at least one-half mile behind flagman until train reaches the intermediate home signal or the junction switch, provided the intermediate home signal does not indicate "PROCEED."

If signals for S. P. Co. trains indicate "STOP" at Beburg or Greton junction switches, train will stop and wait fifteen (15) minutes, and if no train or engine is seen or heard approaching, send flagman ahead immediately, wait ten (10) minutes then proceed, keeping at least one-half mile behind flagman until train reaches the intermediate home signal or clear of junction switch provided the intermediate home signal does not indicate "PROCEED."

Trains stopped by intermediate home signals 7772 or 7779 will send flagman ahead immediately, wait ten (10) minutes then proceed, keeping at least one-half mile behind flagman until train has passed and is clear of junction switch.

Spur at Fanno is equipped with double switch indicator and dwarf light signal 7775. If switch indicator indicates block is "CLEAR" signal 7775 will clear when derail and switch are lined for movement to main track if block is not occupied. If switch indicator indicates block "OCCUPIED" flag protection as prescribed by Rule 99 must be provided in both directions before fouling main track.

East end S. P. Co. siding at Beburg is equipped with double switch indicator and dwarf light signal 7766. If switch indicators indicate block is "CLEAR," signal 7766 will indicate proceed when derail and switch are lined for movement to main track and if block is not occupied. If switch indicators indicate block is "OCCUPIED" wait fifteen (15) minutes, then provide flag protection both directions as prescribed by Rule 99, before fouling main track.

13. **Instructions Governing Operation over S. P. Co. Tracks, O. E. Ry. 5th Sub-division—**

O. E. Ry. trains between Albany and Lebanon will use S. P. Co. main track just west of signals 6912 and 6913, and use Albany and Page siding between Albany and Tallman Branch junction switch at Page, and must comply with S. P. Co. Rules 93 and 842.

When no yardmaster or representative present, train and engine men must comply with S. P. Co. Rules 83 and 83-C. Eastward O. E. Ry. trains (S. P. Co. timetable direction) will obtain check of register at Albany station. Westward O. E. Ry. trains (S. P. Co. timetable direction) will obtain check of register by telephone from S. P. Co. operator at Albany and repeat it back to operator for verification before delivery to engineer.

Before lining derail and main line switch, the position of Signals 6912-6913 located on the S. P. Co. main track, just west of the connection, should be observed. If either signal is in "STOP" position, it indicates there is a train in the block, and derails should not be lined or the switch opened until such train has passed, signal cleared, or it has been ascertained that it is in "STOP" position for some other reason.

Telephone connected with telegraph office, S. P. Co. Albany, is located in booth at LaFayette Street.

O. E. Ry. trains on S. P. Co. tracks at Albany, on what is known as the "Bridge Line," which extends from the point where O. E. Ry. trains enter Albany siding to Page, are not permitted to take water, fuel or other supplies, pick up or set out cars or perform any other service.

Between Page and Lebanon, picking up and setting out of cars is permissible under joint track operation.

14. **Impaired Clearance—**

Train employes are cautioned not to lean out of cab or cars while passing following overhead and side obstructions:

At Portland: All tracks in S. P. & S. Ry. and O. E. Ry. yards have impaired clearance and will not clear a man on side of car.

Double track on 12th Avenue between Overton and Glisan Streets have only ten-foot nine-inch centers. All trains and engines meeting or when moving on either track, when cars are standing on the opposite track between these points, must come to a stop and see that nothing is projecting that will foul equipment.

Trolley wire in the "30" and "40" yards will not clear a man on top of high car.

Bridge 14.9 Tualatin River, one mile east of Tualatin.

S. P. Co. overhead bridge, 15.3 miles east of Tualatin. Cab ventilators on steam engines will not clear the S. P. Co. overhead bridge at Tualatin and must be lowered passing that point.

S. P. Co. overhead bridge, Water Street, Albany.

S. P. Co. siding, Water Street, Albany, opposite Sender's Warehouse. These bridges will not clear a man on top of high car.

15. Speed Restrictions—	MPH
Under S. P. Co. bridge at Tualatin.....	15
Over bridge 22.9, Wilsonville, trains handled by electric engines..	20
Trains handled by steam power, 20 MPH, except over steel span, 10 MPH. Brakes must be released before moving on any portion of the structure and the application of brakes while moving on the bridge must be avoided as far as possible.	
Through Salem.....	10
Passing paper mill, Salem.....	5
Through Albany.....	12
Between second crossing east of depot at Harrisburg and county road crossing, 1800 feet west.....	8
Through Junction City.....	20
Between Forest Grove Junction and Forest Grove.....	20
Between Bowers Junction and Forest Grove Junction.....	35
Between Forest Grove Junction and Beburg.....	20
Between Greton and MP 40.....	30
Between MP 40 and MP 51.....	35
Between MP 51 and MP 104.....	30
Between MP 104 and Eugene.....	40
Through Hillsboro.....	10
Through Forest Grove.....	15
Between Pacific Avenue and end of track, Forest Grove.....	5
Between Sweet Home and Calapooia.....	25
Between Lebanon and Sweet Home.....	25
Between Calapooia and Dollar.....	12

Trains handling logs in gondola cars, skeleton flat cars, or flat cars equipped with bunks—

Between Bowers Junction and Forest Grove Junction.....	30
Between Greton and MP 51.....	30
Between MP 104 and Eugene.....	30
At all other points.....	20

Trains and engines must stop before crossing S. P. Co. track at Front and Trade Streets, Salem, and the three S. P. Co. crossings on Water Street, Albany, and not proceed until flagman has been sent to center of intersection and proceed signal received from him.

When handling cars ahead of engines over Center Street, Salem, the intersection must be protected by a flagman and speed must not exceed five miles per hour. Other members of crew must be in position to pass signals rapidly in case of necessity.

16. Engine Restrictions—

Double header steam engines, when crossing bridge 22.9, Wilsonville, must be separated in trains by not less than 5 cars. If both engines are on head-end, train must be stopped, lead engine cut off and cross over bridge before train is started.

Steam engines not permitted to go beyond the frog of any spur or industry track except the following tracks:

Sidney	—Spur.
Talbot	—Spur.
Dever	—Spur.

17. Logs loaded on skeleton flat cars will not be handled through the streets of Salem after dark without special instructions.

18. Commercial Tracks not Indicated in Time Table:

	Miles from Portland	Capacity	Station Number
Broad Acres.....	51.9	17 E	E 52
Gravel Pit Spur.....	68.7	37 E	E 69
Albany Lumber and Supply Spur	100.4	4 E	E 100
Miller Seed Spur.....	118.3	4 W	E 118
Johnson and Powell Bros. Spur..	130.0	10 E	E 130

19. Work Tracks not Shown as Stations:

	Miles from Portland	Capacity
Outfit Spur No. 75.4.....	75.4	23 E
Sub-Station Spur 61.3.....	61.3	8 E
Sub-Station Spur 101.7.....	101.7	13 E
Sub-Station Spur 121.3.....	121.3	11 E
Sub-Station Spur F3.5.....	25.0	2 E

20. Derails—

Donald	—West end siding.
Salem	—Producers Canning & Packing Co. spur. Oregon Gravel Co. spur. Paulus Bros. spur.
Outfit Spur No. 75.4.	
Sweet Home	—Santiam Lbr. Co., east end. Linn Lane Logging Co., spur. Vancouver Plywood spur.
Albany	—Clearance point on O. E. Ry. track at junction with S. P. Co. main track at east end of S. P. Co. yard.
Wood Spur	—Industry track, east end.
Woodraffe	—Industry track, east end.

21. Draw Bridges—

	Miles from Portland
Willamette River Bridge.....	126.1

UNITED RAILWAYS CO. & G. C. & W. R. RAILROAD

1. **At Gray**—Roger mill spur may be used for empty log trains meeting and passing loaded log trains. Track may be used up to the old turn table and will accommodate 26 sets of logging trucks, engine and caboose clear of main track.
2. **At United Junction**—Normal position of switch is for United Railways main track.
3. **At River Junction**—Normal position of switch is for route to Rafton.
4. A minimum of 16 brakes must be used on all full trains of loaded disconnected trucks on the necessary descending grades between Glenwood and Rafton where brakes are now used. Brakes will be used in proportion on less than full trains. When starting down descending grades, engineer will control speed of trains to give ample time to apply the necessary number of hand brakes.
5. **At Bowers Junction**—Spring switch. Normal position is for O. E. Ry.
6. **At Wilkesboro**—Normal position of junction switch is for G. C. & W. R. Railroad.
7. **At Glenwood**—Derail on main track 170 feet west of east switch must be left in derail position.

8. **At Keasey**—When necessary for S. P. & S. trains or engines to move west of Keasey, conductor will call Oregon American Lumber Company Dispatcher by telephone from Keasey, and arrange for such movement.

9. **Couplers**—When engines and cabooses equipped with adjustable couplers are being moved, the Federal Law prohibits the handling in one train, equipment including engines and cabooses, unless couplers are all in either the high or the low position. This includes couplers on engines and on cabooses on the opposite ends from those in service. When it is necessary to change position of adjustable couplers, there must be no failure to again connect between cutting lever and pin lifter so that cutting lever will be operative.

10. **Log Restrictions**—Following restrictions must be observed in the handling of logs loaded on disconnected trucks; loads must not exceed eleven (11) feet in width, nor eighty-five (85) feet in length, except by special permission.

The load limit for 80,000 capacity trucks is 12,000 feet, and for 100,000 capacity trucks, 14,000 feet.

There must be a clearance of not less than twelve (12) inches from the top of rail to bottom of logs.

In event of trains stalling on grade, enginemen must not take slack to start because of liability of pulling trucks from under loads.

When handling logs on disconnected trucks, trainmen will be required to ride out on trains for the purpose of controlling trains over district between Keasey and Zan, Top Hill and Manning, Rockton and Rafton, Glenwood and Washburn, and between Mile Posts 6 and 3. When handling empty trucks with caboose on rear, trainmen will not be required to ride out, but in every case there must be not less than two trainmen in caboose over these districts.

When handling logs on disconnected trucks, trainmen will be required to wear shoes equipped with caulks.

Log trains must not cross overhead crossing just west of Wilkesboro when S. P. Co. trains are passing underneath. If an S. P. Co. train is passing or approaching, log train must come to a stop and wait until S. P. Co. train has cleared the crossing.

Whenever from any cause, logs are lost from cars or trucks, conductors will file a message at the first open telegraph office, addressed to Superintendent, showing number of logs lost, location, brand and whether from trucks or flat cars.

Double heading of trains handling logs on disconnected trucks is prohibited.

11. A red light must be displayed in center of rear car of each train while moving through Cornelius Tunnel.

12. **Engine Restrictions**—At Glenwood S. P. & S. engines must not enter the five turnouts located between the derrails at the east end of the Mill Tracks and the east switch of Yard Track No. 1. If necessary to use east lead track to Shingle Mill and engine house or west end of mill siding, enough cars must be used so engine will not enter turnouts.

13. **Speed Restrictions**— MPH

Over bridge B-07 between River Junction and Rafton for trains enroute to Rafton.....	12
Between United Junction and Wilkesboro.....	25
Between Wilkesboro and Keasey.....	20
Between Wilkesboro and Glenwood.....	15
Eastward trains will use not less than 25 minutes between Top Hill and Manning.	
Trains handling logs, disconnected trucks.....	15
Trains handling empty disconnected trucks.....	25
Trains handling logs on flats or gondolas between Wilkesboro and Glenwood.....	15

14. **Commercial Tracks not Indicated in Time Table**—

	Miles from Wilkesboro	Car Capacity	Switch at	Station Number
South Fork Spur.....	12.1	36	Both ends	R 12

15. **Work Tracks not Shown as Stations**—

	Miles from Portland	Car Capacity	Switch at
Outfit Spur 39.3.....	39.3	8	West end

16. **Derrails**—

Portland	—Kautz Spur, 26th and Nicolai Street.
Burlington	—East end siding.
Tunnel Spur	—Industry spur.
Rockton	—Industry spur.
Vadis	—Industry track, west end.
Manning	—Industry spur.
Top Hill	—Siding, east end.
Outfit Spur 39.3	
Glenwood	—South Mill spur. North Mill siding. Main track just west of head block to South Mill spur.

17. **Automatic Block Districts and Signal Locations**—

Between	East Signal	West Signal
MP 16.6 and MP 17.6.....	17.6	16.6
MP 40.9 and MP 41.6.....	41.6	No Signal (end of bond MP 40.9)

ALL SUB-DIVISIONS

INCLUDING OREGON TRUNK, TERMINALS, O. E. RAILWAY, UNITED RAILWAYS CO., AND G. C. & W. R. RAILROAD

- Train and yard men are prohibited from shoving cars on yard tracks without having a member of crew stationed on the leading car shoved, or at the extreme end of track being used, and the remainder of crew in such position as will enable signals to be passed to engineman in ample time to prevent cars being shoved over end of track, or fouling other tracks, or causing damage to bumper or equipment. Conductors and engine foreman will be held personally responsible in every case where cars are shoved foul or over end of track or equipment damaged as result of violation of these instructions.
- Rule 83(B) will not apply at initial stations which are not telegraph stations, and at telegraph stations except during office hours, if the train order signal is in clear position.
- When passenger trains meet at stations where view is not clear, and track is straight for at least one-half mile ahead, train holding the main track must stand one thousand (1000) feet from the switch to be used by opposing train until such train has arrived.
- Before coupling to or moving occupied outfit cars, trainmen must notify occupants and see that all ladders and other obstacles are cleared before cars are moved.
- In addition to the requirements listed under Transportation Rule 2, the following officers and employees are required to use watches that have been examined and certified to by designated inspectors: All Division Officers, Track Inspectors, Section Foremen, Bridge and Building Foremen, Electrical Department Line Foremen, Telegraph Line Foremen and Linemen.
- Whistle signal 14(K) must also be sounded when passing track and bridge crews.

7. Lights will be displayed at night on all main line train order signals.

8. Operators must block trains in the same direction ten minutes apart, using train order signal for that purpose, placing it in "STOP" position after train to be protected has passed the train order signal three hundred feet.

9. In territory authorized by the Superintendent, the yellow signals will be placed as prescribed, and the flagman will not be required, except during fog, storms, or otherwise bad weather.

In case of an emergency when track is found impassable and there are not sufficient men to send in both directions, the flagman will go in the direction that a train is expected first, and not less than fifty (50) rail lengths from obstruction, or further if necessary to insure good visibility, must place a red flag by day and in addition a red light by night, and ten (10) rail lengths further, two torpedoes must be placed; then protect the opposite side of the obstruction in the same manner, after which he must go out and place the yellow signals and torpedoes, as prescribed. Trains stopped by these signals must be governed by signal or instruction from the foreman in charge, who in giving such signal must use a yellow flag by day or a yellow light by night.

10. When a siding is to be used temporarily as a main track, the switches must be set and locked for the siding, and must be protected by flagmen and the section foreman of that section notified, the flagmen to remain until released by the Superintendent.

11. In case of failure of communicating signal system on passenger trains, and on freight trains when conditions permit, the engineman must receive a proceed signal from trainmen before passing any station.

12. Trap doors and vestibule doors on passenger trains must not be opened until after the train comes to a stop, and must be closed as soon as train starts to move, unless there is a train employe in a position to protect anyone from getting on or off while train is in motion. Trainmen must be sure before closing vestibule doors that no one is clinging to hand rails.

13. Car loads of cigarettes and whiskey must be placed in trains next ahead of caboose where they can be watched by trainmen.

14. In column on time table marked "Car Capacity," suffix letters E or W indicates the end of track at which switch is located.

15. Trains must not pass under overhead crossing of logging roads while logging train is passing over the crossing.

16. Trains must not block any street or highway crossing in excess of five minutes. When delay will exceed five minutes, conductor must see that train is promptly cut.

17. Whenever descending grades require the use of retaining valves, trains will stop at the top of grade and turn up retainers after brakes are released, following the air test, and stop at foot of grade for retainers to be turned down.

18. Station signs indicating "One Mile S" are placed one mile from the switch where trains enter the siding. Where there is no siding, these signs are placed one mile from the depot building or where traffic is received and discharged.

19. The explosion of torpedoes must be acknowledged by enginemen by sounding two short blasts of the whistle.

20. Impaired Clearance—

The majority of cattle guards are closer to tracks than required standard.

Sign reading: "Impaired Clearance" placed on switch stand at entrance of spur or siding indicates there are platforms or structures located along the side of same, which do not provide minimum horizontal clearance. Employes will use care and avoid risk of injury while working on spurs or sidings protected with "Impaired Clearance" signs.

21. Spring Switches—

Maximum speed for all facing point and trailing point movements through switch fifteen (15) MPH. Trailing movements on the track for which the switch is normally lined may be made at normal speed.

Trains trailing through or stopping on a spring switch must not back up or take slack until points have been thrown by hand. Flying switches over or through spring switches are prohibited. When operated by hand, lever must be moved slowly, keeping a steady pressure on the handle until the switch is thrown and the handle is in the notch on the switch stand provided for it.

Sand must not be used over points of spring switches.

22. At points where there are close clearances, trainmen will work on the opposite side of train from them, and, if necessary, the fireman will receive the signals and communicate them to the engineman.

23. Speed Restrictions—

M.P.H.

When picking up train order hoops (except where hoop stands are located) 25
Over switches in paved streets 10
Engines backing 20

24. Locomotive Cranes, Pile Drivers, Steam Shovels, on own wheels . . . 25

Cranes, Piledrivers, Shovels and other machines on own wheels and equipped with boom must be handled with boom in trailing position, unless otherwise authorized by special instructions.

25. Tunnel Locations—

(Main Line)	Length
No. 1—2.9 miles west of Prindle	2,381 ft.
No. 2—1.7 miles east of Cooks	122 ft.
No. 3—2.1 miles east of Cooks	416 ft.
No. 4—2.6 miles east of Cooks	267 ft.
No. 5—3.2 miles east of Cooks	394 ft.
No. 6—3.9 miles east of Cooks	657 ft.
No. 7—7.2 miles east of Bingen-White Salmon	966 ft.
No. 8—7.5 miles east of Bingen-White Salmon	755 ft.
No. 9—7.7 miles east of Bingen-White Salmon	392 ft.
No. 10—7.9 miles east of Bingen-White Salmon	575 ft.
No. 11—0.6 miles east of Lyle	269 ft.
No. 12—2.1 miles east of Wishram	385 ft.
No. 13—1.1 miles east of Plymouth	699 ft.
No. 14—5.1 miles west of Farrington	203 ft.
No. 15—2.5 miles west of Farrington	323 ft.
No. 16—3.2 miles east of Farrington	2,494 ft.
No. 17—0.9 miles west of Kahlotus	2,220 ft.
No. 18—4.1 miles east of Hooper	369 ft.
No. 19—0.6 miles west of Ft. Wright	2,134 ft.

(Oregon Trunk)

No. 1—1.4 miles west of Moody	782 ft.
No. 2—3.4 miles west of Sherar	800 ft.
No. 3—0.5 miles west of Frieda	519 ft.
No. 4—0.6 miles east of North Junction	584 ft.
No. 5—1.8 miles west of Gateway	542 ft.

(United Railways Co.)

No. 1—1.0 mile west of Tunnel Spur	4,111 ft.
No. 2—0.3 mile west of Top Hill	1,136 ft.

(Astoria Line)

No. 1—1.2 miles east of Mayger	188 ft.
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2780
2690
494
46

26. Junctions—

	Miles from Portland
N. P. T. Co., S. P. Co., U. P. R.R., Portland	0.0
Portland Division, 1st Sub. Willbridge	4.5
Union Pacific R.R. (Barnes)	6.9
Union Pacific R.R., No. Portland Jct.	8.1
Northern Pacific Ry., Vancouver	9.9
Fourth Sub-division, Lyle	85.4
Oregon Trunk Ry., Wishram	105.0
Northern Pacific Ry., S. P. & S. Jct.	229.7
Northern Pacific Ry., Ainsworth Jct.	233.5
Northern Pacific Ry., Snake River Jct.	256.9
Northern Pacific Ry., Marshall Jct.	368.8
Great Northern Ry., Ft. Wright	377.2
Vancouver Division, Willbridge	4.5
United Railways Co., United Jct.	10.0

	Miles from Portland	Switch at
Portland & Southwestern Ry., Scappoose	20.1	East end

	Miles from Lyle
Klickitat Log & Lumber Co., Klickitat	13.4

	Miles from Wishram
Union Pacific R.R., O. T. Jct.	1.5
City of Prineville Ry., Prineville Jct.	132.3
Great Northern Ry., Bend at end of O. T. Ry. Main track	152.4

	Miles from United Junction
United Railways Co.— S. P. & S. Ry., United Junction	0.0

	Miles from Portland
Oregon Electric Co.— Southern Pacific Co., Beburg	28.1
Southern Pacific Co., Greton	31.2

	Miles from Albany Yard
Southern Pacific Co., Albany	0.9
Southern Pacific Co., Lebanon	14.5

27. Interlocking Plants—

	Miles from Portland
Willbridge	4.5
Willamette River draw bridge	5.3
North Portland Junction	8.1
Oregon Slough draw bridge	8.7
Columbia River draw bridge	9.8
Marshall Junction, Northern Pacific Ry.	368.8
Fort Wright, Great Northern Ry.	377.2

The following engine whistle signals will be sounded by enginemen in calling for route at Columbia River draw bridge between No. Portland and Vancouver:

Eastward: one long blast for N. P. Ry.; two short and one long blast for S. P. & S. Ry.

Westward: from S. P. & S. Ry. main track, one short, one long and one short.

From N. P. Ry. four short.

In calling for diverging route through interlocking at North Portland Jct. the following engine whistle signals will be sounded:

From and to U. P. R.R. one short and one long blast.

Stock yards: from S. P. & S. Ry. one short, one long and one short blast; from U. P. R.R. four short blasts.

Assigned hours of draw bridge tender, Oregon Slough bridge, are 8 A.M. to 4 P.M., but is subject to call (Tel. UNiversity 2982) while off duty to operate draw for river traffic. Should it become necessary to flag through this interlocking plant, it must first be ascertained if the draw bridge tender is not on duty, and then flagmen must precede train and be sure that derails and rail locks are in proper position.

	Miles from Portland
28. Overhead Crossings— United Railways, 0.5 mile west of United Jct.	10.5
Union Pacific R.R., 0.8 mile west of Kennewick	228.4
Union Pacific R. R., 2.1 mile east of South Cheney	362.5
Northern Pacific R. R., 3.7 mile east of South Cheney	364.1

	Miles from Portland
29. Railway Crossings— (O. E. 1st Sub-Division)	
S. P. Co., Salem	70.9
S. P. Co., Salem	71.0
S. P. Co., Albany	97.6
S. P. Co., Albany	97.8
S. P. Co., Albany	97.9
S. P. Co., Lasen	140.7
(O. E. 4th Sub-Division)	
S. P. Co., Hillsboro	26.3

30. Location, Capacity and Facilities of Stockyards—

Vancouver Division:

Location	No. of Pens	Capacity in Cars	Facilities
Vancouver	1	2	Water
Bingen-White Salmon	2	2	Water
Lyle	4	10	Water
North Dalles	3	7	None
Wishram	6	20	Water
Maryhill	2	5	None
Goodnoe	1	2	None
Roosevelt	4	10	Water
Alderdale	1 cattle 2 sheep	2 9	None
Whitcomb	2	4	None
Paterson	2 cattle 3 sheep	5 20	None
Plymouth	2	5	Water
Hover	1 sheep only	8	None
Kennewick	1 cattle 1 sheep	2 8	None
Pasco	6	6	Water
Harder	2	5	None
Washtucna	2	2	Water
Hooper	3	8	None
Ankeny	Chute		None
Benge	2	2	Water
Lantz	2	2	None
Macall	2	2	None
Rockwell	2	4	None
Lamont	1	2	None
Rodna	2	5	None
Amber	2	3	None
Centerville	1	2	Water near
Goldendale	3	5	Water
Sinamox	1	2	None
Shearer	2	4	Feed Racks

30. Location, Capacity and Facilities of Stockyards—(Continued)

Maupin.....	4	8	{Water, Feed Racks & Scales
Nena.....	2	4	{Feed Racks No Water
Nathan.....	1	1	Feed Racks
Kaskela.....	1	1	None
South Junction.....	4	10	Water
Gateway.....	4	12	Water
Madras.....	4	12	Water
Metolius.....	1	2	{Water & Feed Racks
Culver.....	2	4	None
Terrebonne.....	4	8	{Water & Feed Racks
Redmond.....	10	22	{Water, Feed Racks & Scales
Deschutes.....	2	4	Feed Racks
Bend.....	7	15	{Water, Feed Racks & Scales
	2 sheep	5	

Portland Division—	No. of Pens	Capacity in Cars	Facilities
Quincy.....	1	1	Water
Clifton.....	1	1	None
Astoria.....	1	2	None
Warrenton.....	1	1	None
Oregon Electric Ry.—			
Albany Yard.....	4	5	Water

31. Bulletin Stations—

Portland	—Union Station telegraph office. Hoyt Street telegraph office. Roundhouse. Yard office (for yard men only).
Vancouver	—Telegraph office and roundhouse. Yard office (yard men only).
Wishram	—Telegraph office and roundhouse.
Bend	—Telegraph office and roundhouse.
Goldendale	—Telegraph office.
Lyle	—Telegraph office.
Pasco	—Yard office. Passenger Station telegraph office. Roundhouse.
Spokane	—G. N. and N. P. passenger stations.
Parkwater	—Roundhouse.
Yardley	—Yard office.
Hillyard	—Roundhouse.
Astoria	—Passenger Depot.
Seaside	—Passenger Depot.
Salem	—Depot.
Albany	—Depot and Yard Office.
Eugene	—Depot.
Sweet Home	—Depot.
Vernonia	—Depot.

32. Watch Inspectors—

Ball Railroad Time Service of Ohio.	284 Endicott Bldg., St. Paul, Minn.
Roy and Molin.....	316 S. W. Alder St., Portland
Dillen Rogers.....	Killingsworth and Albina Ave., Portland
Zell Brothers.....	629 S. W. Broadway, Portland
Joseph Carter.....	Vancouver
W. L. Runyan.....	Vancouver
H. W. Hull.....	Pasco
Art Glasow, Jr.....	Pasco
Pacific Watch Co.....	No. 7 Washington St., Spokane
Mrs. Cora Squibb.....	Hillyard
M. H. Symons.....	Bend
E. M. Young.....	Rainier
Loop-Jacobsen.....	Astoria
A. L. Kullander.....	Vernonia
Hartman Bros. Co.....	Salem
F. M. French & Sons.....	Albany
Seth Laraway.....	Eugene
W. E. White.....	Sweet Home

33. Standard Time Clocks—

Portland	—Union Station telegraph office. Hoyt Street telegraph office. Roundhouse.
Vancouver	—Telegraph office and Roundhouse.
Wishram	—Telegraph office.
Pasco	—Telegraph office and Roundhouse.
Spokane	—N. P. and G. N. Passenger Stations.
Yardley	—Yard office, Roundhouse.
Hillyard	—Yard office, Roundhouse.
Bend	—Telegraph office.
Astoria	—Telegraph office.
Seaside	—Telegraph office.
Vernonia	—Telegraph office.
Salem	—Telegraph office.
Albany	—Yard office.
Eugene	—Telegraph office.

SPEED TABLE

Time per Mile		Miles per Hour	Time per Mile		Miles per Hour	Time per Mile		Miles per Hour
Min.	Sec.		Min.	Sec.		Min.	Sec.	
0	51	70.6	1	7	53.7	2	30	24
0	52	69.2	1	8	52.9	2	40	22.5
0	53	67.9	1	9	52.1	2	45	21.8
0	54	66.6	1	10	51.4	2	50	21.2
0	55	65.4	1	12	50	3	..	20
0	56	64.2	1	15	48	3	9	19
0	57	63.1	1	20	45	3	20	18
0	58	62	1	25	42.3	3	31	17
0	59	61	1	30	40	3	45	16
1	..	60	1	40	36	4	..	15
1	1	59	1	45	34.3	5	..	12
1	2	58	1	50	32.7	6	..	10
1	3	57.1	2	..	30	7	30	8
1	4	56.2	2	10	27.6	10	..	6
1	5	55.3	2	15	26.6			
1	6	54.5	2	20	25.7			

R. C. SCOFFERN, Trainmaster
 J. L. MONAHAN, Trainmaster
 C. F. CROFFUT, Trainmaster
 H. E. OATFIELD, Trainmaster
 A. BERGH, Trainmaster
 A. W. GEORGE, Trainmaster
 H. JACKSON, Chief Dispatcher, Portland
 F. C. WAGER, Mechanical Supt., Vancouver
 C. E. BARNES, Traveling Engineer
 W. C. ABBOTT, Traveling Engineer
 J. M. WASSENAR, Traveling Engineer

CLEARANCE TABLE

	HEIGHTS ABOVE TOP OF RAIL												
	1' Wide	2' Wide	3' Wide	4' Wide	5' Wide	6' Wide	7' Wide	8' Wide	8' 6" Wide	9' Wide	10' Wide	11 Wide	11'-6" Wide
Portland—Vancouver.....	19' 4"	19' 4"	19' 4"	19' 4"	19' 4"	19' 4"	19' 4"	19' 4"	19' 4"	19' 4"	18' 3"	17' 9"	17'
Vancouver—Spokane.....	20'	20'	19' 6"	19' 6"	19' 6"	19' 6"	19' 6"	18' 6"	18'	17' 6"	17' 6"	17'	16'-6"
Lyle—Goldendale.....	20'	21'	21'	21'	21'	21'	21'	20' 6"	19' 10"	19' 5"	18' 9"	17'	16'
Wishram—Bend.....	21'	18'	17' 6"	17'	17'	17'	17'	16' 6"	15' 9"	15' 6"	15'	14'	—
Portland—Holladay.....	20'	17'	17'	17'	17'	17'	17'	20'	20'	20'	20'	20'	18'
Warrenton—Fort Stevens.....	17'	17'	17'	17'	17'	17'	17'	17'	17'	17'	17'	—	—
O. E. Ry.—U. Rys. Portland Yard Limits..	17'	17'	17'	17'	17'	17'	17'	17'	17'	17'	17'	—	—
Portland—Garden Home.....	17'	17'	17'	17'	17'	17'	17'	17'	17'	17'	17'	—	—
Garden Home—Forest Grove.....	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	16'
Garden Home—Eugene.....	15' 9"	15' 9"	15' 9"	15' 9"	15' 9"	15' 9"	15' 9"	15' 9"	15' 9"	15' 9"	15' 9"	—	—
Lebanon—Dollar.....	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	17'	16'
Orengo—Bowers Junction.....	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	18'
United Junction—Wilkesboro.....	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	17'	—
Wilkesboro—Keasey.....	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	17'	—
Wilkesboro—Glenwood.....	20'	20'	20'	19'	19'	19'	19'	18' 6"	17' 9"	17' 6"	17'	16'	—

Conductors must be absolutely positive that loads do not exceed these dimensions and must not move cars of greater dimensions without instructions from Superintendent.

THEORETICAL LOCOMOTIVE TONNAGE RATINGS

DISTRICT	CLASS AND ENGINE NUMBER					
	Ruling Grade	D-2 150-151	D-4 153-154	D-7 160-162	N-1 350-352	F-1 452-461
Portland-Goble.....	.56	1489	1423	1669	2200†	2113 ^A
Goble-Astoria.....	.31	2310	2189	2571	2200†	3262 ^A
Astoria-Flavel.....	.33	2193	1949	2442	2200	.....
Warrenton-Holladay.....	1.22	742	766	935	952	.....
Holladay-Warrenton.....	.70	1215	1168	1374	1605	.....
Flavel-Astoria.....	.44	1742	1658	1931	2200	.....
Astoria-Goble.....	.38	2086	1980	2325	2200	2838
Goble-Portland.....	.52	1600	1532	1798	2200	2242

†N-1 Will handle 2725 tons Portland-Astoria no stop St. Helens.

^AF-1 will handle 3500 tons Portland-Astoria no stop St. Helens.

TONNAGE RATING ELECTRIC ENGINES

DISTRICT	Grade	40-41-42	1-2-3-4-10	21-22-23-24-25-26	60-61-62-63-64	50-51
Portland-United Jct.....	Level	662	875	1050	1400	1750
United Jct.-Burlington...	2.0%	337	422	506	674	843
Rafton-Burlington.....	2.3%	298	374	448	598	747
Burlington-Rockton.....	1.5%	425	531	637	850	1062
Rockton-Forest Grove Jct.	Level	662	875	1050	1400	1750
For. Gr. Jct.-W. Woodburn	1.0%	556	700	850	1120	1415
West Woodburn-Eugene..	Level	662	875	1050	1400	1750
Eugene-West Woodburn..	Level	662	875	1050	1400	1750
West Woodburn-Rockton	1.0%	556	700	850	1120	1415
Rockton-Rafton-Portland	Level	662	875	1050	1400	1750

THEORETICAL LOCOMOTIVE TONNAGE RATINGS

DISTRICT	CLASS AND ENGINE NUMBER													
	Ruling Grade	N-4	N-6	N-6	N-7	N-1	N-2	N-2	N-2	F-1	F-1	F-1	O-1	O-3
Tualatin-Wilsonville.....	.95	303-304	325-326	327-329	335-339	350-352	355-365	366-368	451 Booster	452-461	1427	465-466	500-507	530-534
Wilsonville-Salem.....	1.0	1323	1383	1495	1495	1216	1502	1593	1878	1335	1427	2515	2456	
Salem-Albany.....	.4	1536	1619	1735	1748	1426	1756	1861	2194	1562	1671	2933†	2872†	
Albany-Eugene.....	.3	2673	2830	3043	3057	2512	3075	3249	3830	2736	2938	5097†	5000†	
Eugene-Albany.....	.4	3249	3460	3709	3724	3068	3746	3956	4665	3333	3584	6200†	6038†	
Albany-Wilsonville.....	.4	2673	2830	3043	3057	2512	3075	3249	3830	2736	2938	5097†	5000†	
Wilsonville-Tigard.....	1.0	2673	2830	3043	3057	2512	3075	3249	3830	2736	2938	5097†	5000†	
Bowers Jct.-Forest Grove Jct.....	Down	1257	1317	1413	1426	1158	1432▲	1519▲	1791	1272	1359	2400▲	2342▲	
Forest Grove Jct.-Bowers Jct.....	1.0	1257	1317	1413	1426	1158	1600	1600	1905	1424	1522	2688	2623	
Albany-Sweet Home.....	2.0	1230	1284	1378	1400	1110	1402	1500	1768	1244	1314	2402	2320	
Sweet Home-Albany.....	Down			Car Li mit										
Sweet Home-Dollar.....	2.4	525	518	567	567	445	567	610	717	503	534	982	943	
Dollar-Sweet Home.....	1.75	726	745	800	811	648	812	868	1023	721	765	1384	1341	
Tigard-Forest Grove Jct.....	.6	1958	2072	2222	2235	1831	2247	2377	2803	1999	2143	3738	3661	
Forest Grove Jct.-Tigard.....	Level			Car Li mit										

†O-1 and O-3 not to be used west of Wilsonville. ▲N-2 will handle 2640 tons with no stop. ▲O-1 and O-3 will handle 3600 tons with no stop.

THEORETICAL LOCOMOTIVE TONNAGE RATINGS

DISTRICT	CLASS AND ENGINE NUMBER																
	Ruling Grade	N-1	F-1	F-1	O-1	O-2	O-3	C-1	H-1	GN O-4	GN O-6	GN N-2	GN Q-1	GN R-1	E-1	Z-6	
Parkwater-Scribner.....	1.2	809	1509	1032	1137	525	530-534	603-609	620-624	3210-3254	3350-3359	2000	2116	2037 2040	700-702	900-905	
Hillyard-Ft. Wright.....	1.0	965	1791	1237	1359	1838	2230	907	1348	2230	2350	3320	2450	4930	2403	3620	
Ft. Wright-Mock.....	1.0	965	1791	1237	1359	1838	2230	907	1348	2230	2350	3320	2450	4930	2403	3620	
Scribner-Mock.....	1.0	965	1791	1237	1359	1838	2342	907	1348	2368	2450	3320	3000	5400	2403	3820	
Mock-Vancouver.....	Down			Car Li mit													
Vancouver-Snake River.....	.2	3200	5942	4211	4580	6049	7743	3110	4591	8445	8102	11200	10602	17612	8400	12798	
Snake River-Mock.....	.4	2071	3830	2701	2938	3928	5000	1990	2952	5011	5246	7180	6843	11408	5350	8153	
Mock-Ft. Wright.....	Down			Car Li mit													
Ft. Wright-Hillyard.....	1.0	965	1791	1237	1359	1838	2342	907	1348	2368	2450	3320	3000	5400	2403	3820	
Scribner-Parkwater.....	1.0	965	1791	1237	1359	1838	2342	907	1348	2368	2450	3320	5600	11408	5350	7000	
Wishram-South Jct.....	.6	1514	2803	1964	2143	2870	3661	1438	2146	3692	3853	5230	5006	8378	.....	6000
South Jct.-Madras.....	1.5	644	1202	815	904	1493	1575	574	882	1590	1639	2220	2146	3660	.....	2700
Madras-Bend.....	1.0	965	1791	1237	1359	1838	2342	907	1348	2368	2450	3320	3000	5400	.....	3820
Bend-Madras.....	.5	1752	3316	2332	2540	4040	4233	1674	2490	5000	5000	6060	5790	9671	.....	6890
Madras-Wishram.....	Down			Car Li mit													

†O-1 and O-3 not to be used west of Wilsonville. ▲N-2 will handle 2640 tons with no stop. ▲O-1 and O-3 will handle 3600 tons with no stop.

THEORETICAL LOCOMOTIVE TONNAGE RATINGS

CLASS AND ENGINE NUMBER

DISTRICT	Ruling Grade	CLASS AND ENGINE NUMBER													O-3	
		D-2	D-4	D-7	N-4	N-6	N-6	N-7	N-1	N-2	N-2	F-1	F-1	F-1		O-1
United Jct.-Burlington...	2.0	414	432	523	630	617	664	675	530	676	725	759	597	632	1176	1135
Rafton-River Jct.....	2.3	340	367	439	541	545	585	593	469	597	640	751	529	557	1030	991
Burlington-Manning.....	1.5	575	593	729	880	854	918	924	742	933	996	1177	825	879	1597	1550
Manning-Tophill.....	2.3	340	367	439	541	520	560	568	444	572	615	726	504	532	1005	966
Tophill-Vernonia.....	Down			Car Li	mit											
Vernonia-Keasey.....	2.3	340	367	439	541	545	585	593	469	597	640	751	529	557	1030	991
Keasey-County Line.....	2.0	414	432	523	630	642	689	700	555	701	750	884	622	657	1201	1160
County Line-Trehorn.....	Down			Car Li	mit											
Trehorn-Brauns.....	.63	1357	1344	1692	1882	1990	2133	2147	1757	2168	2284	2692	1919	2057	3592	3517
Brauns-Tophill.....	1.5	575	593	729	880	879	943	949	767	958	1021	1202	850	904	1622	1575
Tophill-No. Plains.....	Down			Car Li	mit											
No. Plains-Rockton.....	1.0	884	894	1109	1257	1317	1413	1426	1158	1600	1600	1905	1424	1522	2688	2623
Rockton-Rafton.....	Down			Car Li	mit											
Rockton-United Jct.....	Down			Car Li	mit											

THEORETICAL LOCOMOTIVE TONNAGE RATINGS

CLASS AND ENGINE NUMBER

DISTRICT	Ruling Grade	CLASS AND ENGINE NUMBER													O-3	
		D-2	D-4	D-7	N-4	N-6	N-6	N-7	N-1	N-2	N-2	F-1	F-1	F-1		O-1
Wilksboro-Orchardale.....	2.2	361	387	465	568	574	617	628	496	628	674	794	557	588	1082	1042
Orchardale-Washburn.....	Down			Car Li	mit											
Washburn-Glenwood.....	2.2	361	387	465	568	574	617	628	496	628	674	794	557	588	1082	1042
Glenwood-Washburn.....	Down			Car Li	mit											
Washburn-Orchardale.....	.8	1095	1098	1369	1536	1619	1735	1748	1426	1756	1861	2194	1562	1671	2933	2872
Orchardale-Wilksboro.....	.6	1415	1398	1763	1958	2072	2222	2235	1831	2247	2377	2803	1999	2143	3738	3661