

**Spokane, Portland & Seattle Railway Co.**

**Oregon Trunk Railway**

**Oregon Electric Railway**

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# **Special Instructions No. 5**

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**In Effect 12:01 A. M. Pacific Time**

**Tuesday, January 1, 1946**

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**These instructions constitute a part of the  
Time Table currently in effect.**

**Employees whose duties are in any way  
affected by the Time Table must have a copy of  
The Current Special Instructions and Current  
Time Table with them on duty.**

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**E. H. SHOWALTER,  
Superintendent**

**T. F. DIXON,  
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.

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.

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 10th 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 moving in the vicinity of the connecting track switch.

All freight trains entering S. P. & S. Ry. yard, will, unless specifically advised to the contrary, head in on 21st Avenue lead, stop east of 14th Avenue and call for track. Trains handling passenger equipment only will head in at 14th Avenue unless otherwise advised.

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 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. 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.

# VANCOUVER DIVISION

## FIRST SUB-DIVISION

**At Portland**—Fire lanes have been established over railroad crossings at 9th Street and Front Avenue and 14th Street and Front Avenue. Fire warning signals consisting of an electric siren and red flashing lamps located at these crossings will be operated only when fire fighting apparatus is going to a fire along the water front. In such cases, the siren will be sounded 2 to 3 minutes before the apparatus reaches the crossing and immediate action must be taken by trains and engines to clear the crossing in order there be no delay in fire apparatus reaching scene of fire.

3. **At Willbridge** — Whistle signal, 1 long, 1 short and 1 long blast (— . —) will be sounded for route to Astoria line.

4. **Engine Restrictions**—At Portland, Hoyt Street Yard: Engines GN Classes 03, 04, 05, 06, Q-1 and Q-2 not permitted to head in on any yard track except Tracks 1, 2, and 3 in the Middle Yard, account No. 7 turnouts. These classes of power with the exception of Classes GN Q-1 and Q-2 are permitted to back through other yard tracks. Engines GN Classes Q-1 and Q-2 not permitted on 21st Avenue lead.

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

5. **Impaired Clearance**—

**AT PORTLAND**—All tracks in S. P. & S. Hoyt Street Yard have impaired clearance and will not clear a man on side of car.

**PORTLAND, Union Depot Yard**—When U. P. engines 3800 class enter or leave tracks in south end of yard, the boilers extend to outside of curve, creating close clearance with any engine which may be standing or moving on adjacent tracks. Engines standing on the south end of any of the odd numbered tracks awaiting arrival of U. P. passenger trains must remain back on straight track a sufficient distance to afford proper clearance, which clearance is indicated by yellow marks painted on ties and on edge of station platform.

In Union Depot Yard, Portland, S. P. & S. engines Class E-1 not permitted to enter or leave trackage at south end of station account sharp turnouts. Clearance at cab window height with depot sheds is as close as one and one-half inches, which close clearance must be observed by engine crews at all times.

6. **Derails**—

**Portland** —15th Avenue crossing between Westward main track and 21st Avenue lead.  
—W. P. Fuller Co. Spur.  
**Willbridge** —Kern and Kibbe spur.

7. **Speed Restrictions**—

	M.P.H.	
	Pass.	Fr.
Maximum Speed.....	65	4
Between 17th Avenue and end of double track.....	10	10
Between end of double track and Union Station stop.....	6	6
Over bridges between Vancouver and Willbridge.....	30	30
Over draw spans and rail locks.....	20	20

8. **At East Portland**—The following governs the use of tracks constituting the East Second Street Yard: Tracks 1, 4, 5 and 6 are owned by the Union Pacific Railroad. Tracks 2 and 3 are owned by the S. P. & S. Railway.

**Track 1** is for the S. P. & S. to make delivery of cars to the Union Pacific and the Union Pacific will use this track for other business provided it does not interfere with the S. P. & S. making their deliveries.

**Track 2** is to be used by the Union Pacific for the delivery of cars to the S. P. & S. and the S. P. & S. will use this track for other business provided it does not interfere with the Union Pacific making their deliveries.

**Track 3** is to be used as a thoroughfare by the S. P. & S. between Portland and East Portland and must not be used by the Union Pacific.

**Track 4** is to be used by the Union Pacific as a thoroughfare between Albina and East Portland and must not be used by the S. P. & S.

**Tracks 5 and 6** are for exclusive Union Pacific use and must not be used by the S. P. & S.

These tracks must not be used in any other manner than indicated above.

1. **Speed Restrictions**—

	M.P.H.	
	Pass.	Fr.
Maximum Speed.....	65	45
Over 8th St. Crossing, Vancouver.....	8	8
At Camas 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
Engines G. N. Class R-1.....	..	35
Freight Engines.....	45	..

2. **Derails**—

**Camas** —No. 3 Warehouse Track.  
—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.  
**Carson** —Spur.  
**Underwood** —Industry track, clearance point west end.  
**Lyle** —West end Union Meat Co. spur.  
—East end outfit spur.  
**Avery** —Ballast loading track, west end.

3. **Engine Restrictions**—Engines classes E-1 and heavier not permitted on the following tracks:

**Camas**—Warehouse spurs 1 and 3; mill spurs 1 and 2; A. M. Blake Spur; Standard Oil Company Spur and Olson Lumber Company Spur.

**Skamania**—Industry Track.

**Stevenson**—Industry track, Union Oil Company Spur, Standard Oil Company Spur and Lindis Spur.

**Carson**—Spur.

**Home Valley**—Rock Spur.

**Hood**—Broughton Lumber Company Spur.

**Bingen-White Salmon**—Team tracks, both ends; Union Oil Company Spur and Standard Oil Company Spur.

**At Home Valley** engines heavier than Classes O-1 and O-3 not permitted on Rock Spur.

## SECOND SUB-DIVISION

	M.P.H.	
	Pass.	Fr.
1. <b>Speed Restrictions</b> —		
Maximum Speed.....	65	45
Engines G. N. Class R-1.....	..	35
Freight Engines.....	45	..

2. **Engine Restrictions**—

Engines Classes E-1 and heavier, not permitted to go beyond the frog of the following tracks:

Goodnoe pit tracks.

3. **Derails**—

**Sundale** —east end of industry track.  
**Plymouth** —east and west end of industry track.  
**Hover** —east end of industry track.  
**Kennewick** —east end of industry track.

#### 4. Register Exception—

**At Pasco**—The S. P. & S. register will be used in compliance with Rule 83(A) in lieu of the register at S. P. & S. Junction.

5. **Between Pasco and Kennewick**—All movements between Pasco passenger station and east switch of siding at Kennewick are governed by block signals, the indications of which supercede the superiority of trains for opposing and following movements on the same track. The end of bonded circuit is located 4500 feet west of west switch at Kennewick. Eastward trains will stop clear of east switch of siding Kennewick if eastbound signal at east switch does not indicate proceed.

Trains will be governed by N. P. Ry. Co. time table and special instructions.

Trains to and from the S. P. & S. will display the same classification signals as required arriving S. P. & S. junction on S. P. & S. Ry., but regular trains will use schedules shown on N. P. time table carrying S. P. & S. connections.

### THIRD SUB-DIVISION

#### 1. Between Pasco and Ainsworth Junction—

All trains and engines will be governed by block signals, the indications of which 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.

2. **At Pasco**—Siding which parallels Third District main track is equipped with spring switch and facing point lock at east end. Switch at west end is hand throw. Dwarf signal located 1000 feet east of M. P. 232 governs eastward movements from siding to main track. Normal position of this signal is STOP. A time release and key switch is located 10 feet east of head block. When eastward movement is to be made from siding to main track, trainmen will insert key in switch key box and turn in clockwise direction to actuate the dwarf signal. If signal does not then indicate proceed, open door of box, operate push button and wait three (3) minutes for time release. If signal does not then indicate proceed, be governed by Rule 509(A). The approach lighting section for this signal extends only 400 feet west of the signal. If an engine or car over-runs this point a proceed signal cannot be obtained.

The switch at intersection of Pasco freight yard lead and main track at M. P. 231 is dual control, electrically operated by remote control by the operator at Pasco. Normal position is for main track. Train approaching switch and finding home signal at STOP will communicate with operator at Pasco. If switch is not in proper position for train movement and if no conflicting movement, and if the operator is unable to manipulate the switch and/or clear the signal, the switch may be operated by hand after following instructions governing the handling of dual control switches. If signals still indicate STOP, trains may proceed as prescribed by Rules 663(D) and 509(A).

3. **Ainsworth Junction**—Junction switch is dual control, electrically operated by remote control by the operator at Pasco. Normal position is for S. P. & S. Trains approaching switch finding HOME signal at STOP will communicate with operator at Pasco and be governed by instructions contained in second paragraph of Item 2 above.

Signal 233.2, just west of Ainsworth Jet. is the last signal for eastward movements. The top unit governs movements to the S. P. & S., and the lower to N. P. 9th Sub-Division.

Westward Signal 234.3, located 6000 feet east of junction switch, governs approach to HOME signal. Clearing section is 8500 feet east of the HOME Signal.

At Pasco Eastward Signal 230.6, at intersection of Third Sub-Division main track and back-up track, governs approach to HOME signal at intersection of Main track and Freight lead. The Normal position of this switch is for Third Sub-Division main track.

#### 4. 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 authorizing movement. Junction switch is equipped with an electric switch lock.

#### 5. At Scribner—

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

Northern Pacific trains approaching Scribner from S. P. & S. will sound whistle signal one short, one long and one short to call for route to Marshall.

Junction switch is equipped with an electric switch lock. The locking device is also equipped with a sealed emergency release for use only when the apparatus fails to unlock following the normal procedure.

To operate the emergency release, break the seal, remove the lock pin, depress and hold down the push button on the emergency release, while moving the lock handle to the unlocking position. Wait three minutes and if there is no impending train movement, junction switch may be thrown, and if signal fails to clear, train may proceed under the provisions of Rule 509(B). Operators at Scribner will handle junction switch for N. P. route when on duty.

The end of track circuit governing eastward automatic block signal 367.4 at Scribner is located 7000 feet west of that signal and the junction switch cannot be operated to admit an eastward train to enter Northern Pacific route until such train has entered the westerly limit of this bonded circuit. Eastward Northern Pacific trains will approach this junction switch at a low rate of speed to enable operator to line switch.

#### 6. At Marshall Junction—

Junction switch is governed by interlocking signals and rules.

#### 7. At Fort Wright—

Junction switch is governed by interlocking signals and rules.

Eastbound automatic block signal No. 375.6, located just West of Tunnel 19 (Fort Wright), is a three-position signal and connected with home signal at Fort Wright interlocker. This signal will indicate "approach" when home signal indicates "stop" and will indicate "proceed" when home signal indicates "proceed" and route is lined for Eastbound S. P. & S. trains.

Telephone located at signal 375.6 to enable crews to contact operator at Fort Wright.

#### 8. At Hillyard—

Westward S. P. & S. Ry. Co. trains must secure S. P. & S. clearance Form A before proceeding.

#### 9. Engine Restrictions—

Engines Classes E-1, and heavier, not permitted to go beyond the frog of the following tracks:

Burr Canyon—Spur

Farrington —Spur

Kahlotus —Town Spur

Sperry —Elevator Spur

Lamont —Oil Spur, Cinder track and Warehouse track

Scribner —Nemours Spur

Ft. Wright —Outfit Spur

**At Spokane**—Engines heavier than Mikado type not allowed on turn out leading to the Log, Back, Middle and short Track at the West end, or over turn-out leading to high team tracks at the East end of G. N. yards.

10. Speed Restrictions—	Pass.	Fr.
Maximum Speed.....	60	45
Between Kahlotus and Snake River Jct.....	40	25
Engines G. N. Class R-1.....	..	35
Freight Engines.....	45	..

11. 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
Ankeny.....	305.8	31	Both ends	306
Nemour's Powder Spur	368.6	48	West end	369

12. Work Tracks Not Show as Stations—

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

13. Derails—

Levey	—west end of spur.
Redd	—west end of spur.
Snake River	—west end of elevator spur, and west end of gravel pit track.
Burr Canyon Spur	—west end.
Kahlotus	—east end of house track.
Harder	—west end of stockyard siding.
Sperry	—east end of spur.
Washtucna	{ —west end of house track. east end of empty coal track.
Hooper	—west end of industry track.
Ankeny	—west end of storage track.
Benge	—west end elevator track.
Lamont	{ —west end of No. 2 track. east end of empty coal track. at top of heavy grade on oil spur.
South Cheney	—east and west end of industry track.
Nemour	—2 derails (One 321 feet east of H. B. of spur.) (One 1600 feet east of H. B. of spur.)
Outfit Spur No. 374.6	—east end.

## FOURTH SUB-DIVISION

(GOLDENDALE-LYLE)

1. Speed Restrictions—	M.P.H.
Between Goldendale and Klickitat.....	20
Between Klickitat and Lyle.....	25
On curves 5 degrees and over.....	15

2. 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

3. Derails—

Wahkiakus—west end of siding.

4. Bridge and Engine Restrictions—

Engines heavier than Class N-2 not permitted.

## OREGON TRUNK RAILWAY

1. At O. T. Junction—Normal position of spring switch is for Oregon Trunk Ry.
2. At Celilo Wye—Normal position of switch is for Oregon Trunk Ry.
3. At Redmond—Dropping cars over Ochoco Highway crossing is prohibited.
4. Westward Freight and Mixed Trains will stop at Madras and turn up retainers on all loaded cars and on alternate empties 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. Trainmen will not be required to ride out on top of cars between these points.

5. Speed Restrictions—	M.P.H.	
	Pass.	Mixed
Between Wishram and MP 87.....	35	30
Between MP 87 and MP 98.....	25	20
Between MP 98 and Metolius.....	40	35
Between Metolius and Bend.....	25	25

6. Derails—

Sherar	—west end siding.
Maupin	—west end house track.
Gateway	{ —west end house track. west end siding.
Paxton	—industry track, west end.
Madras	{ —east end oil spur. west end house track. west end siding.
Agency	—west end of siding.
Metolius	—west end siding.
Prineville Jct.	—west end siding.
Redmond	{ —east end house track. west end house track. Redmond fuel oil spur. Army base spur.
Deschutes	—west end industry track.
Bend	{ —west end depot spur. west end of both sidings. west end house track. east end Union Oil spur. west end Standard Oil spur. east end Pine Tree spur. west end stockyard spur.

### 7. Bridge and Engine Restrictions—

Engines Class 0-1 and heavier, 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-tenth mile east of Madras and steel bridge No. T-88.6, 2.8 miles east of South Junction.

Engines Class Z-6 and heavier are permitted on the following spurs and industry tracks only:

- Maupin —Industry track.
- Tuskan —Industry track.
- 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, north end house track.

Engines Class Z-6 and heavier, not permitted to go beyond the frog of the trackage at South Junction.

8. **Celilo Draw Bridge** is closed as a draw span except when actually in use to permit passage of navigation. Advance notice covering the time a vessel will pass through the draw will be given to the Chief Dispatcher. He will then instruct section foreman at Wishram to be on hand at Celilo draw at proper time, and after the flagmen have been placed 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-FORT STEVENS)

1. **At Willbridge**—Whistle signal, 1 long, 1 short and 1 long blast (— o —) will be sounded for route to Astoria line.
2. **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.
3. **At St. Helens**—Trains must not block highway crossing while taking water.
4. **At Warrenton**—Normal position of switch is for 1st sub-division.
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; Mayger; Clatskanie; Bradwood; Wauna; Westport; Clifton; Knappa; John Day; Astoria.

	M.P.H.	
	Pass.	Frts.
<b>7. Speed Restrictions—</b>		
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
Through Rainier (City Ordinance).....	8	8
Between Locoda and U. S. Government Yard.....	..	10
Between Curve 163 and Warrenton.....	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 Fort 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	12	East end	A 41
Reeds.....	45.2	5	East end	A 45
Van Vleet Spur.....	47.0	13	West end	A 47 A
Hickox Spur.....	47.3	12	East end	A 47 C
Pyramid.....	53.5	7	West end	A 54
Tongue Point.....	96.8	19	East end	A 96
Warrenton Clay Spur..	106.3	54	West end	F S 1
Bioproducts Spur....	108.1	5	West end	F S 3A
Point Adams Spur....	108.3	5	East end	F S 3

### 9. Derails—

- Willbridge —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.
- Scappoose —Gravel 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 Gasco**, three car lengths on both sides of stub end of the loading track.
- At Astoria**—All tracks of the Port of Astoria; City Lumber and Supply Co. spur; New England Fish Co. spur; Uptegrove Lumber Co. track; house track.
- 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.

### 11. Bridge and Engine Restrictions—

Engines heavier than Class D-2 not permitted west of Astoria.

Engines Classes O-2 and heavier not permitted west of Clatskanie.

Engines Classes N-6 and N-7 restricted to 15 M. P. H. on curves of 3 degrees and over.

Engines Class F-1 and heavier not permitted on the following tracks:

Prescott —Beyond loading dock.

Westport —beyond lower dock on spur.

Wauna —Wauna Lumber Co. spur No. 2, and Wood tracks.

Astoria —Hanthorne cold storage spur and Port dock tracks.

Double heading of steam engines is prohibited on Portland division, except between Willbridge and United Jct. When two engines are used in a train the second engine must be cut back not less than ten (10) cars from lead engine.

## THIRD AND FOURTH SUB-DIVISIONS

1. **At United Junction**—Normal position of switch is for Fourth Sub-Division.

2. **At River Junction**—Normal position of switch is for route to Rafton.

3. 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. 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 hand brakes.

4. **At Bowers Junction**—Spring switch. Normal position is for O. E. Ry.

5. **At Wilkesboro**—Normal position of junction switch is for 3rd Sub-division.

6. **At Keasey**—When necessary for 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.

7. **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.

8. **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.

### 8. (Continued)

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.

9. **Engine Restrictions**—At Glenwood 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.

10. **At Rafton**—Round-house track No. 2 must not be used by Engines or cars beyond round-house door.

Due to sharp curvature, engines not allowed on the east end of Dump 3 track.

### 11. Speed Restrictions—

	MPH
Over bridge B-07 between River Junction and 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

12. **Bridge Restrictions**—Engines heavier than Class O-2 not permitted west of Wilkesboro on Third or Fourth Sub-divisions.

### 13. Commercial Tracks not Indicated in Time Table—

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

### 14. Work Tracks not Shown as Stations—

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

### 15. 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.

South Fork —Industry track, east end.

## OREGON ELECTRIC RAILWAY

1. Cars handled in trains or by yard engines in city streets, at any station, must have air cut in and operative, except when actually switching.
2. **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.  
Cars 50 feet and longer must not be handled via 12th Ave. and Pettygrove Street.
3. **At Salem**—All cars delivered by the O. E. Ry. to the S. P. Co. and left on 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.  
Eastward trains handling logs on flat cars will stop at water tank, Salem, and make inspection of all such loads, and know before proceeding, that logs are riding properly for safe movement through the City of Salem.
4. **At Albany**—Normal position of Junction switch is for third sub-division.
5. **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.
6. **Interchange Tracks** with S. P. Co. are located at Salem, Albany, Lasen and Lebanon.
7. **Instructions Governing Operation over S. P. Co. Track Between Greton and Beburg**—  
Absolute signal located 306 feet west of Beburg junction switch governs eastward movement from Southern Pacific tracks.  
Absolute signal located 225 feet east of Greton junction switch governs westward movement from Southern Pacific tracks.  
Absolute signal located 306 feet east of Beburg junction switch governs westward movement from Oregon Electric tracks. Absolute signal located 225 feet west of Greton junction switch governs eastward movement from Oregon Electric track.  
Normal position of Junction switches at Greton and Beburg is for Southern Pacific movement. Normal position of absolute signals at Greton is "stop." Normal position of absolute signal at Beburg governing Southern Pacific movement is "proceed" and normal position of absolute signal governing the Oregon Electric movement is "stop." Switch indicators are in use.  
When an absolute signal governing Southern Pacific movement indicates "stop" train after stopping will comply with S. P. Co. Rule 744.  
Oregon Electric trains will stop at absolute signals; if switch indicators at junction switch indicate "block clear" switch may be set for movement from Oregon Electric track. If switch indicators at junction switches indicate "block occupied" wait 10 minutes and if no train is heard or seen approaching, the switch may then be set for movement from Oregon Electric track. If signal does not then indicate "proceed" comply with S. P. Co. Rule 744.  
Signal 7772 located between Beburg and Greton governs eastward movement for Southern Pacific trains and westward movement for Oregon Electric trains.

## 7. (Continued)

- Signal 7779 located between Greton and Beburg governs westward movements for Southern Pacific trains and eastward movements for Oregon Electric trains.  
Trains stopped by Signals 7772 or 7779 indicating "stop" will send flagman ahead immediately, wait ten minutes then proceed, keeping at least one-half mile behind flagman until train has passed and is clear of junction switch.  
Spur track at Fanno is equipped with double switch indicator and dwarf light signal 7775. East end Southern Pacific siding at Beburg is equipped with double switch indicator and dwarf light signal 7766. If switch indicator indicates block is clear dwarf signal will indicate "proceed" when derail and switch lined for movement to main track. If switch indicator indicates block "occupy" wait 10 minutes then provide flag protection both directions as prescribed by Rule 99 before fouling main track.  
Eastward Southern Pacific trains will, when meets are made at Beburg, move through siding unless otherwise provided by train order. Eastward trains entering siding at Beburg must clear main track as soon as possible to release signals for other movements.  
Telephone in booth at Beburg and Greton connected with both O. E. and S. P. dispatcher's offices by means of two-way switch.
8. **Instructions Governing Operation over S. P. Co. Tracks between Albany and Lebanon.**  
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.
  9. **Impaired Clearance**—  
**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.  
Bridge 14.9 Tualatin River, one mile east of Tualatin.  
**At Albany**—  
S. P. Co. overhead bridge, State highway bridge and S. P. Co. siding all on Water Street.  
These bridges will not clear a man on top of high car.  
Cab ventilators on all steam engines must be lowered and sand dome covers on engines classes O-1 and O-3 must be removed when passing under S. P. Co. overhead bridge at Tualatin account impaired clearance.



10. Speed Restrictions—	MPH
Under S. P. Co. bridge at Tualatin.....	15
Over bridge 22.9, Wilsonville, 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 much as possible.	
Between Forest Grove Junction and Forest Grove.....	25
Through Hillsboro.....	10
Through Forest Grove.....	15
Between Bowers Junction and Beburg.....	35
Between Beburg and Greton on S. P. tracks.....	20
Between Greton and Eugene.....	35
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.....	5
Through Junction City.....	20
Between Lebanon and Sweet Home.....	25
Between Sweet Home and Calapooia.....	25
Between Calapooia and Dollar.....	12

**Trains handling logs..... 25**

Log trains will stop at Tualatin and inspect train for projecting logs before passing under S. P. Co. overhead bridge and over Tualatin river bridge 14-9.

**At Salem and Albany—**

Trains and engines moving on Front Street, Salem, must stop before crossing S. P. Co. trackage at Trade, Chemeketa, Union and Division Streets, and at all three crossings with the S. P. Co., on Water Street, Albany, and not proceed until flagman has been sent ahead and proceed signal received from him.

**11. Engine Restrictions—**

Double header 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.

At Orenco—Engines Class 0-2 and heavier not permitted beyond a point 500 feet west of West switch of siding, on second sub-division.

Steam engines not permitted on the following tracks:

- Wilsonville —Hole track.
- Salem —All industry tracks.
- Melas —Log dump trestle.

Steam engines not allowed to operate between Albany and Eugene except by special authority of Superintendent.

**12. Bridge Restrictions—**

Engines Classes 0-2, and heavier, not permitted west of east end of Bridge 22.9, Wilsonville.

At Salem—Steam engines not permitted on bridge 71-6-S, located on old passenger main line.

**13. Commercial Tracks not Indicated in Time Table:**

First Sub-Division	Miles from Portland	Capacity	Station Number
Miller Seed Spur.....	118.3	4 W	E 118
Crown-Willamette Log track.....	129.9	25 E & W	
Johnson and Powell Bros. Spur....	130.0	10 E	E 130

  

Third Sub-Division	Miles from Albany	Capacity	Station Number
Kelley Timber Products.....	18.3	3 E	S 18
C. & M. Lumber Co.....	20.4	7 E	S 20
J. T. Brady Co.....			
Lichty Piling Co.....	20.8	15 E	S 20
Puget Timber Co.....	24.6	7 E	S 24
Daugherty Piling Co.....	26.0	10 E & W	S 26

**14. Work Tracks not Shown as Stations:**

	Miles from Portland	Capacity
Sub-Station Spur 19.....	18.9	2 E
Mulloy.....	40.2	7 E
Melas.....	72.0	36 E & W
Outfit Spur No. 75.4.....	75.4	23 E
Sub-Station Spur 61.3.....	61.3	8 E
Pirtle.....	101.6	2 E
Sub-Station Spur 101.7.....	101.7	13 E
Cartney.....	121.3	2 E
Meadowview.....	134.4	6 E

**15. Derails—**

- Donald —West end siding.
- Curtis —Siding, east end.
- Salem —Producers Canning & Packing Co. spur.  
Oregon Gravel Co. spur.  
Paulus Bros. spur.  
Chemical Co. lead.
- Albany —Clearance point on O. E. Ry. track at junction with S. P. Co. main track.

**SANTIAM BRANCH**

- M. P. 26 —Daugherty Piling Spur.
- Sweet Home—Cascadia Lumber Spur.  
Vancouver Plywood, two tracks with derails.  
Gravel Spur, derail.  
Portland Dock, derail.  
Long-Bell Lbr. Co.—Three spurs, east end.

**HOLLEY BRANCH**

- M. P. 10 —Ryan, derail east end.
- M. P. 14 —Skagit Linn Spur, east end.

## ALL SUB-DIVISIONS

1. 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.
2. Whistle signal 14(K) must also be sounded when passing track and bridge crews.
3. Lights will be displayed at night on all main line train order signals.
4. Car loads of cigarettes and whiskey must be placed in trains next ahead of caboose where they can be watched by trainmen.
5. When a train strikes livestock bring train to a stop and make prompt inspection to ascertain if any damage to equipment. If livestock is struck by trains near switches, the switches should be examined, dispatcher notified, and sectionmen called so permanent repairs can be made.
6. Trainmen will closely observe lading of open top cars in transit, and if found shifting, see that it is properly adjusted or car set out.
7. Dropping cars into tracks on which there are occupied outfit cars is prohibited.
8. When necessary to set out equipment due to hot journal, be sure that all traces of fire are extinguished and journal box properly marked.
9. Open cars loaded with rail must not be handled next to caboose if the consist of the train permits handling in another location.
10. Pusher engines must not push on cabooses not equipped with steel center sills.
11. Sign reading: "Impaired Clearance" placed on switch stand or entrance of spur or siding indicates there are platforms or structures located along track 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.
12. In column on time table marked "Car Capacity," suffix letters E or W indicates the end of track at which switch is located.
13. Trains must not pass under overhead crossing of logging roads while log train is passing over the crossing.
14. 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.
15. 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.
16. When dining cars or other non-platform cars are placed on the rear of passenger trains, in addition to keeping the flexible gate closed and fastened in place, the rear door of car must be kept locked.
17. Under Rule 2 of the Consolidated Code of Operating Rules, watches that have been examined and certified to be a designated inspector must also be used by all officers and the following employes: Train dispatchers, track inspectors, section foremen, bridge and building foremen, telegraph line foremen, linemen and yardmen.
18. **Electric Switch Locks**—To operate, open door of electric switch lock and push the button. This will start operation of clock release, which will run down in three minutes and, at the end of that time, switch can be unlocked by moving lever to the left. Restore lock lever, close and lock doors of electric locks and release boxes when switches are restored to normal position.

19. **Dual Control Switches**—To operate, throw selection lever from power position to hand operating position, then operate switch with hand throw lever. Selector lever must not be returned to power position until after final movement over switch has been made. Both levers must be left in normal position and locked.

20. **Speed Restrictions**— M.P.H.  
 Through crossovers, gantlets and No. 11 turnouts . . . . . 15  
 Through No. 15 or 16 turnouts, at Willbridge, Panama Jct. and  
 Ainsworth Jct. . . . . 25

### Spring Switches—

- In facing point direction:
- If not equipped with facing point lock . . . . . 30
  - If equipped with facing point lock . . . . . normal speed

### In trailing point direction:

- When movement actuates switch points . . . . . 30
- On track for which switch is lined . . . . . normal speed
- If any movement is through turnout, the allowable turnout speed must be observed.

Freight engines used in passenger service must not exceed authorized speed for freight trains in the territory where operated.

- Handling steam wrecking cranes, pile drivers or locomotive cranes 25

When freight cars, except those equipped with passenger trucks and steel wheels, are handled in passenger trains, the train will not exceed authorized speed for freight trains in the territory where operated.

- Over switches in paved streets . . . . . 10

- When picking up train order hoops (except where hoop stands are located) . . . . . 25

To avoid damage to rail and bridges by moving locomotives having main or side rods down, over the road at too high a speed, the following speeds will be maximum permitted:

### With main and side rods removed:

- All classes . . . . . 20 MPH.

### With main rods removed and side rods in place:

- All classes . . . . . 25 MPH.

- Over bridges . . . . . 20 MPH

Engines with either or both main and side rods removed shall not be moved over any bridge at a speed in excess of 20 MPH, and the speed shall be further reduced over bridges which carry speed restrictions against the class of power being so moved. In the latter case, the speed of an engine with rods removed shall be reduced over the bridge to one-half the restricted speed for that engine in working order, as shown under "Bridge and Engine restrictions."

Dead engines with all rods up or in place, the piston rod being parted from the crosshead and removed and the valve motion disconnected and blocked, may be moved in trains at not to exceed the permissible speed of freight trains operating in the territory over which such engines are moved.

Bridge or other restrictions applicable to these engines when in operating condition to be observed.

- For engines coming from the shop, to prevent running hot authorized maximum speed is . . . . . 25 MPH.

## 21. Handling of Explosives—

### (Position of Explosive Cars in Trains.)

Cars placarded "Explosives" must be placed in through freight trains near the middle of the trains and must be not nearer than the sixteenth car from the engine, or a caboose in service if next to engine, electric locomotive, or motor car, nor the eleventh car from the rear end caboose, if the length of the train will permit. Cars placarded "Explosives" in all cases must be not nearer than the second car from engine, electric locomotive, motor car, or caboose. Where helper engines or electric locomotives are employed ahead of caboose, cars placarded "Explosives" must be separated from such helpers by at least one car.

Cars placarded "Explosives" may be placed in local freight trains, or mixed trains when authorized herein, not nearer than the second car from the engine, electric locomotive, motor car, or a caboose in service, when placing them near the middle of the train would require additional switching at way stations.

Cars placarded "Explosives" must not be placed in through or local trains next to dead engines, loaded tank cars, wooden-frame flat or gondola cars; or carloads of pipe, lumber, poles, iron, steel, or similar lading which by shifting may break through end of car placarded "Explosives" due to rough handling; refrigerator cars equipped with automatic refrigeration of the gas-burning type; nor next to cars containing lighted heaters, stoves, or lanterns; or cars with live stock or poultry occupied by an attendant.

Cars placarded "Explosives" must not be placed in through or local trains next to cars which bear "Dangerous" placards, unless the remainder of the train consists only of such cars.

### (Position of Loaded Placarded Tank Cars in Trains.)

Placarded loaded tank cars must not be placed in trains next to cars placarded "Explosives" nor next to cars containing lighted heaters, stoves, or lanterns; nor next to refrigerator cars equipped with automatic refrigeration of the gas-burning type; nor next to flat cars with lading such as logs, lumber, rails, or pipe, or gondola cars with such lading higher than ends, that is liable to shift. In through trains such tank cars must not be placed nearer than the sixth car from the engine, electric locomotive or motor car, or a caboose in service, and in local trains not nearer than the second car from the engine, electric locomotive, motor car or a caboose in service, when length of train permits and cars other than loaded tank cars are in the train.

### Careful handling of explosive cars—

When handling cars placarded "Explosives" in yards or on sidings, explosive cars must be coupled to engine, electric locomotive, or motor car, protected by a car between.

Cars placarded "Explosives" must not be handled with doors open.

Cars placarded "Explosives" must not be cut off while in motion, and must be coupled carefully and all unnecessary shocks must be avoided. Other cars must not be cut off and allowed to strike a car containing explosives. Cars placarded "Explosives" must be so placed in yards or on sidings that they will be subject to as little handling as possible and be removed from all danger of fire. Such cars must not be placed on tracks under bridges and should not be placed in or along side passenger sheds or stations; and, when avoidable, engines on parallel tracks must not be allowed to stand opposite or near them.

When cars protected by "Explosives" placards are received or held in yards, particularly at night, the carrier must see that precautions are taken to prevent accidents. These precautions must include provision for quickly removing and isolating the cars in case of fire.

### Inspection of explosive cars when time permits—

At points where trains stop and time permits, cars placarded "Explosives", and adjacent cars, must be examined to see that they are in good condition and free from hotboxes or other defects liable to cause damage. If such cars are set out short of destination for any cause, conductor must notify superintendent by wire.

## 22. 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 Davidson.....	584 ft.
No. 5—1.8 miles west of Gateway.....	542 ft.

### (S. P. & S. 4th Sub Division)

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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23. 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.

24. Overhead Crossings—

	Miles from Portland
Fourth Sub-division, 0.5 mile west of United Jct.....	10.5
Southern Pacific Co., Tualatin.....	35.8
Southern Pacific Co., Albany.....	97.6
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

25. Railway Crossings—

	Miles from Portland
(O. E. 1st Sub-Division)	
S. P. Co., Salem.....	70.9
S. P. Co., Salem.....	71.0
S. P. Co., Salem.....	71.2
S. P. Co., Salem.....	71.5
S. P. Co., Albany.....	97.7
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

26. 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
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
Kennewick.....	1 cattle 1 sheep	2 8	None
Pasco.....	27	40	Water
Harder.....	2	5	None
Washtucna.....	2	2	Water
Hooper.....	3	8	None
Ankeny.....	2	2	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
Sherar.....	2	4	Feed Racks
Maupin.....	4	8	{Water, Feed Racks & Scales
Dant.....	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 2 sheep	15 5	{Water, Feed Racks & Scales
<b>Portland Division—</b>			
Quincy.....	1	1	Water
<b>Oregon Electric Ry.—</b>			
Albany Yard.....	4	5	Water

## 27. Bulletin Stations—

Portland	—Union Station telegraph office. Roundhouse. Yard office.
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	—Passenger Station telegraph office. Roundhouse.
Spokane	—G. N. passenger station.
Hillyard	—Roundhouse.
Astoria	—Passenger Depot and Round House.
Seaside	—Passenger Depot.
Salem	—Depot.
Albany	—Yard Office and Round House.
Eugene	—Depot.
Sweet Home	—Depot.
Vernonia	—Depot.

## 28. Watch Inspectors—

Ball Railroad Time Service of Ohio	284 Endicott Bldg., St. Paul, Minn.
Roy and Molin	316 S. W. Alder St., Portland
Zell Brothers	629 S. W. Broadway, Portland
W. L. Runyan	Vancouver
Robt. G. Tyack	Goldendale
Swanson Jewelry Co.	Pasco
Swanson Jewelry Co.	No. 9, Washington St., Spokane
McGuire Jewelry Store	Hillyard
M. H. Symons	Bend
Loop-Jacobsen	Astoria
Hartman Bros. Co.	Salem
F. M. French & Sons	Albany
Seth Laraway	Eugene
W. E. White	Sweet Home
Kullander's Jewelry Store	Vernonia

## 29. Standard Time Clocks—

Portland	—Union Station telegraph office. Roundhouse and Yard Office.
Vancouver	—Telegraph office and Roundhouse.
Wishram	—Telegraph office.
Pasco	—Telegraph office and Roundhouse.
Spokane	—G. N. Passenger Station.
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
Minutes	Seconds		Minutes	Seconds	
0	45	80	1	12	50
0	46	78.3	1	15	48
0	47	76.6	1	20	45
0	48	75	1	25	42.3
0	49	73.5	1	30	40
0	50	72	1	40	36
0	51	70.6	1	45	34.3
0	52	69.2	1	50	32.7
0	53	67.9	2	..	30
0	54	66.6	2	10	27.6
0	55	65.4	2	15	26.6
0	56	64.2	2	20	25.7
0	57	63.1	2	30	24
0	58	62.0	2	40	22.5
0	59	61.0	2	45	21.8
1	..	60	2	50	21.2
1	1	59	3	..	20
1	2	58	3	9	19
1	3	57.1	3	20	18
1	4	56.2	3	31	17
1	5	55.3	3	45	16
1	6	54.5	4	..	15
1	7	53.7	5	..	12
1	8	52.9	6	..	10
1	9	52.1	7	30	8
1	10	51.4	10	..	6

R. C. SCOFFERN, Assistant Superintendent

J. L. MONAHAN, Trainmaster

C. F. CROFFUT, Trainmaster

R. P. JEFFREY, Trainmaster

H. M. BATES, Trainmaster

R. G. HASKELL, Trainmaster

F. L. WEBER, Chief Dispatcher, Portland

F. C. WAGER, Mechanical Supt., Vancouver

C. E. BARNES, Master Mechanic

W. C. ABBOTT, Traveling Engineer

J. M. WASSENER, Traveling Engineer

J. T. CRAINE, Traveling Engineer

# CLEARANCE TABLE

	HEIGHTS ABOVE TOP OF RAIL											GOVERNING STRUCTURE		
	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' 2"	19'	18' 3"	17' 9"	17'	Willamette River Bridge
Vancouver—Spokane.....	20'	19' 6"	19' 6"	19' 6"	19' 6"	19'	18' 6"	18' 6"	18'	18'	17' 6"	17'	17'	Columbia River Bridge
Lyle—Goldendale.....	20'	19' 6"	19' 6"	19' 6"	19' 6"	19'	18' 6"	18' 6"	18'	18'	17' 6"	17'	17'	All Tunnels
Wishram—Bend.....	20'	20'	20'	20'	19' 9"	19' 6"	19' 3"	19'	18' 9"	18' 6"	18'	17' 6"	17'	None
Portland—Holladay.....	18' 6"	18'	17' 6"	17'	17'	16' 6"	16'	16'	15' 9"	15' 6"	15'	14'	—	All Tunnels
Warrenton—Fort Stevens.....	20'	20'	19'	19'	19'	19'	19'	19'	18'	18'	18'	18'	18'	Mayger Tunnel
O. E. Ry.—S. P. & S. Portland Yard Limits	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	18'	18'	None
Forest Grove Jct.—Forest Grove.....	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	19'	18'	18'	Track Centers
Bowers Jct.—Eugene.....	16'	16'	16'	16'	16'	16'	16'	16'	16'	16'	16'	16'	16'	None
Lebanon—Dollar.....	19'	19'	19'	19'	19'	19'	19'	19'	18' 6"	18'	18'	17'	17'	Tualatin S. P. Overhead
Orengo—Bowers Junction.....	19'	19'	19'	19'	19'	19'	19'	19'	18'	18'	18'	18'	18'	None
United Junction—Wilkesboro.....	19'	19'	19'	19'	19'	19'	19'	19'	18' 6"	18'	17' 6"	17'	17'	Cornelius Tunnel
Wilkesboro—Keasey.....	19'	19'	19'	19'	19'	18' 6"	18' 3"	18'	17' 9"	17' 6"	17'	16'	16'	*Tophill Tunnel
Wilkesboro—Glenwood.....	19'	19'	19'	19'	19'	19'	18' 6"	18'	18'	18'	18'	18'	18'	None

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

# LOCOMOTIVE TONNAGE RATINGS

SUB-DIVISION	Vancouver Division District	Ruling Grade %	CLASS OF ENGINE																	
			GN O-1	GN O-3	GN O-4	GN R-1	Z-6 Z-8	E-1	NP W-3 W-5	H-1	C-1	N-2 Sup.	N-2 Sat.	N-1						
Oregon Trunk—Eastward	Wishram to South Junction	.6	3500	1400	2200	6200	6000						1500	1000						
	South Junction to Madras	1.5	1400	1400	2200	2600	2400						600	450						
	Madras to Bend	1.0	2200	2200	2200	4318	3820						1200	800						
Oregon Trunk—Westward	Bend to Wishram	Down											Limit							
First and Second—Eastward	Vancouver to Pasco	.2	6600	6600	6600	9000	9000						4200	3000	5000	3500				
First and Second—Westward	Pasco to Vancouver	Down											Limit							
Third—Eastward	Pasco to Snake River	.2	6600	6600	6600	9000	9000						4200	3000						
	Snake River to Mock	.4	4000	4000	4000	7200	7050						1500	1000						
	Mock to Ft. Wright	Down											Limit							
	Ft. Wright to Hillyard	1.0	1800	1800	1800	4100	3950						2400							
	Hillyard to Ft. Wright	Down											Limit							
Third—Westward	Ft. Wright to Mock	1.0	1800	1800	1800	4000	3820						2400							
	Mock to Pasco	Down											Limit							
Fourth—Eastward	Lyle to Goldendale	2.2											Limit		750	600				
Fourth—Westward	Goldendale to Lyle	Down											Limit							

## LOCOMOTIVE TONNAGE RATINGS

SUB-DIVISION	OREGON ELECTRIC District	Ruling Grade	CLASS OF ENGINE												
			N-2 Sup.	N-2 Sat.	N-6 Sup.	N-6 N-7	O-2	O-1 O-3	DE 660	DE 1000	DE 1750	DE 3500			
First—Westward	Bowers Jct. to Tualatin	Down	3500	3000	3000	2500	1000	1600	2000	Limit	800	1600			
	Tualatin to Tonquin	1.1	1600	1250				Car	Limit						
	Tonquin to Wilsonville	Down													
	Wilsonville to West Woodburn	1.2	2000	1500	1500	1250	2000	2400	1000	2000	1000	2000			
First—Eastward	West Woodburn to Eugene	.4	3000	2500	2500	2000	3000	3000	1250	2500	1500	3000			
	Eugene to Albany	Down													
	Albany to Salem	.4	6000	4550	4550	4200	6000	6500	1350	2700	1350	2700			
	Salem to Wilsonville	1.0	4175	3025	3025	2750	4175	5000	1250	2500	1250	2500			
Second—Westward	Wilsonville to Bowers Jct.	1.0	1850	1600	1600	1500	1850	2200	800	1600	750	1500			
	Forest Grove Jct. to Forest Grove	1.0													
	Forest Grove to Forest Grove Jct.														
	Albany to Sweet Home		1850	1500	1500	1250			800	1600	800	1600			
Third—Westward	Sweet Home to Albany	Down					Car	Limit							
	Sweet Home to Dollar	2.4	750	550	550	400									
	Dollar to Sweet Home	1.75	1050	775	775	700									

## LOCOMOTIVE TONNAGE RATINGS

SUB-DIVISION	PORTLAND DIVISION District	Ruling Grade	CLASS OF ENGINE												
			F-1	N-1	N-2 Sup.	N-2 Sat.	N-6 N-7	N-6 Sup.	O-2	O-1 O-3	D-2 D-4	DE 660	DE 1000		
First—Westward	Willbridge to St. Helens	.56	2150	2000	4000	3200	2400	2750	4000	5000	1000				
	St. Helens to Astoria	Down					Car	Limit							
	Astoria to St. Helens	.67	3000	2800	4500	3700	2800	3200	4500	5500	1500				
	St. Helens to Willbridge	Down					Car	Limit							
First—Eastward	Wilkesboro to Glenwood	2.2	550	500	900	700	600	700							
	Glenwood to Wilkesboro	.8	1250	1150	2000	1800	1500	1800							
	United Jct. to Ban Spur	2.0	550	500	950	675	600	675	950	1100	450	900			
	Rafton to Ban Spur	2.5			750	600			750	900					
Third—Westward	Ban Spur to Rockton-Manning	1.5	650	550	1100	800	725	800	1100	1250	500	1000			
	Manning to Tophill	2.2	550	500	700	600	525	600	700	1050					
	Tophill to Vernonia	Down					Car	Limit							
	Vernonia to Brauns	.8	800	700	2500	2000	1850	2000	2500						
Fourth—Eastward	Brauns to Tophill	1.5	800	650	1100	900	875	900	1100						
	Tophill to North Plains	Down					Car	Limit							
	North Plains to Rockton	1.0	1250	1050	1850	1600	1500	1600	1850		800	1600			

LOCOMOTIVE TO RAILROAD

Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950		
Income from operations	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000	4100	4200	4300	4400	4500	4600	4700	4800	4900	5000	5100	5200	5300	5400	5500	5600	5700	5800	5900	6000		
Operating expenses	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000		
Depreciation	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	600		
Income before taxes	400	440	480	520	560	600	640	680	720	760	800	840	880	920	960	1000	1040	1080	1120	1160	1200	1240	1280	1320	1360	1400	1440	1480	1520	1560	1600	1640	1680	1720	1760	1800	1840	1880	1920	1960	2000	2040	2080	2120	2160	2200	2240	2280	2320	2360	2400		
Taxes	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300		
Net income	350	385	420	455	490	525	560	595	630	665	700	735	770	805	840	875	910	945	980	1015	1050	1085	1120	1155	1190	1225	1260	1295	1330	1365	1400	1435	1470	1505	1540	1575	1610	1645	1680	1715	1750	1785	1820	1855	1890	1925	1960	1995	2030	2065	2100	2135	2170

RAILROAD TO RAILROAD

Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950		
Income from operations	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000	4100	4200	4300	4400	4500	4600	4700	4800	4900	5000	5100	5200	5300	5400	5500	5600	5700	5800	5900	6000		
Operating expenses	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550	2600	2650	2700	2750	2800	2850	2900	2950	3000		
Depreciation	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	600		
Income before taxes	400	440	480	520	560	600	640	680	720	760	800	840	880	920	960	1000	1040	1080	1120	1160	1200	1240	1280	1320	1360	1400	1440	1480	1520	1560	1600	1640	1680	1720	1760	1800	1840	1880	1920	1960	2000	2040	2080	2120	2160	2200	2240	2280	2320	2360	2400		
Taxes	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300		
Net income	350	385	420	455	490	525	560	595	630	665	700	735	770	805	840	875	910	945	980	1015	1050	1085	1120	1155	1190	1225	1260	1295	1330	1365	1400	1435	1470	1505	1540	1575	1610	1645	1680	1715	1750	1785	1820	1855	1890	1925	1960	1995	2030	2065	2100	2135	2170