

UNION PACIFIC RAILROAD COMPANY
Northwestern District

Washington Division

Special Rules
No. 4

Effective Saturday,
November 1, 1941

Superseding Special Rules No. 3

Employes whose duties are in any way affected
thereby, must have a copy of these rules with
them while on duty.

J. C. ALBRIGHT, Superintendent
M. C. WILLIAMS, General Superintendent

F. N. FINCH,
General Manager

H. M. TURNER,
Supt. Transportation

Serial N^o 4125

2 (B). In addition to employes enumerated in Rule 2, following employes must use watches that have been examined and certified to by a designated inspector:

Safety Agents	Station Agents
Trainmasters	Operators
Road Foremen of Engines	Assistant Yardmasters

Operators must set their clocks when Standard Time is transmitted.

At stations where there is not a standard clock, the watches of operators must be compared with the train dispatcher, before commencing each day's work.

Employes will be exempt from watch inspection and comparison when permanently assigned in offices where a standard clock is provided.

7 (B). At points where there are close clearances, train and yard men 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.

7 (C). When practicable, all signals by hand must be given on the engineman's side; flag and lamp signals (when not by hand), fuseses and torpedoes must also be placed on that side, but they must be respected when received from or found on either side.

9 (R). Switch lights will not be used on following branch lines:

Tekoa-Ayer Branch, between Seltice and Winona via Thornton	
Tucannon-Pendleton Branch, except main track switches in Walla Walla yard	
Pomeroy Branch	Connell Branch
Dayton Branch	Wallace Branch
Sierra Nevada Branch	

Trains and engines must approach facing point switches on these branches prepared to stop if switch is not in normal position.

9 (S). Lights will not be kept burning at night in train order signals on branch lines when operators are not on duty.

11 (B). A train finding a fusee burning yellow on or near its track must reduce speed and proceed at restricted speed for at least one mile.

The use of yellow fusees where color light signals are in use is prohibited.

11 (C). A train finding a fusee burning red on or near its track must stop before passing the fusee, extinguish it, and may then proceed at restricted speed for at least one mile.

14 (x). In case of necessity for transferring control of air brakes from one engine to another, enginemen will sound two short and one long blasts of engine whistle and will be governed by Air Brake Rule 1050 (B).

14 (y). Referring to Rule 14(1). The sounds prescribed must be clear and distinct. The first of the long sounds to be started at such a point that the signal will be completed by ending the last sound immediately before reaching the crossing, prolonging it if necessary. The duration of the complete signal must not be less than ten seconds. To avoid unnecessary annoyance, the sounds should be no louder than necessary to give adequate warning to traffic in the vicinity of the crossing.

The engine bell must be ringing continuously until the engine has passed over the crossing.

15 (A). The explosion of two torpedoes is a signal to immediately reduce speed and proceed at restricted speed for at least one mile.

15 (B). In placing torpedoes during cold weather or when there is a possibility of snow storms, in addition to placing torpedoes on the rail on engineman's side of the track, duplicate sets of torpedoes must be placed on the other rail directly opposite those normally required.

17 (B). The headlight must be displayed to the front of trains by night and during heavy storms or fogs of sufficient intensity to obscure the view.

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

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

17 (C).—Continued.

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

While standing on main track awaiting arrival of an approaching train that is to take siding, but not until after approaching train dims its headlight as a signal for the standing train to do likewise.

17 (D). On streamline and gas-electric trains, the headlight must be burning dim during daylight hours.

19 (C). A train with engine equipped for display of indicators must not leave its initial station without the train number being properly displayed in the indicators. When the number of a train is changed, the indicators must be changed to correspond. Before making such change, the safety of other trains must be fully considered.

Common Standard—Single Row—Indicator

12	for Train No. 12
1-12	for First 12
X-162	for Extra 162.

Unless otherwise provided, engine crews arriving at terminals must not remove the indicators until the train has been delivered to connecting crew or is clear of the main track and switch is closed.

19 (D). When passenger trains, except those with electric markers, are being switched from the rear, the markers should be removed to prevent obscuring view of enginemen. With trains having electric lighted markers, the lights should be turned off while train is being switched from the rear.

26 (A). When necessary to protect against the moving or coupling into of certain bad order cars on repair tracks with other cars, some of which it may be necessary to move, a red flag by day and a red light by night must be displayed on such cars to indicate that they must not be moved or coupled into under any circumstances.

These instructions do not change or modify Rule 26 in any way.

26 (B). When a carman is accompanying equipment, or at points where work is of emergency character and Rule 26 cannot be complied with, protection must be arranged as follows: Before carman goes under or between cars, yard or trainman must give hand or lamp stop signal and receive whistle acknowledgment from engineman.

Train must not be moved, nor air brakes applied or released, until carman is out from under or from between cars and yard or trainman so indicates to engineman.

The yard or trainman must remain with the carman as long as carman works under or between cars, and the yard or trainman will be responsible for the carman's protection.

26 (C). On a streamline train, when it is necessary for any employe to go underneath any part of the train, a chain must be placed securely on each side of a traction wheel, for blocking. In addition, an understanding must be had with the engineman and he must not move the train until the employe in charge of the work personally reports back to him. A 90-pound brake application must be maintained while the work is being done.

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

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

31 (R). Ordinances of the cities of Spokane, Pendleton and Pomeroy make it unlawful for any person operating a locomotive within the city limits to sound the whistle thereof except to prevent accident not otherwise avoidable or to signal an interlocking signalman or flagman.

31 (S). At Walla Walla, the use of the engine whistle at the public crossings at West Cherry Street and Gardners' Association just west of Mill Creek Bridge, is prohibited except to prevent accidents not otherwise avoidable.

83 (C). Clearance, Form 2643, will be used instead of Clearance Form A.

83 (D). Unless otherwise instructed, when a train is relieved by train order from checking a train register for overdue trains, the conductor will register by registering ticket, Form 2642, per Rule 83 (A), at that station.

83 (R). Clearance must be received as follows:
 Walla Walla—all trains;
 Spokane—all westward trains originating at West Spokane;
 Wallula—eastward Yakima Branch trains originating at Attalia.

Trains are not required to receive a clearance as per Rule 83 (B) as follows:
 Attalia—all trains;
 N. P. Crossing (Spokane)—all eastward S. I. trains;
 Tucannon—all trains;
 Bolles—all trains;
 Midvale—all trains;
 Turner—all westward trains.

When there is no operator on duty, trains are not required to receive a clearance as per Rule 83 (B) as follows:

Hooper Jct.—all trains;
 Starbuck—all trains;
 LaCrosse—all trains;
 Sunnyside—all eastward trains;
 Connell—all eastward trains;
 Moscow—all westward trains;
 Burke—all eastward trains.

A Clearance Received at	By the Only Section of	Will Confer the same Authority on	As When Received at
Walla Walla	Eastward trains	Yakima Branch	Attalia.
U. P. Depot Wallace	Westward trains	Between Wallace Jct. and Burke	Wallace Jct.
U. P. Depot Waitsburg (N. P. Clearance)	U. P. Eastward trains	Between Waitsburg Jct. and Dayton Jct.	Waitsburg Jct.
N. P. Depot Dayton (N. P. Clearance)	U. P. Westward trains	Between Dayton Jct. and Waitsburg Jct.	Dayton Jct.
Ayer	Eastward trains	Connell Branch	Hooper Jct.
LaCrosse	Westward trains	Sixth Subdivision	Hooper Jct.
Walla Walla	Eastward trains	Dayton Branch	Bolles
Dayton	Westward trains	Tucannon-Pendleton Branch	Bolles

83 (S). Information required by Rule S-83 need not be received as follows:
 N. P. Crossing (Spokane)—all eastward S. I. passenger trains.

Conductors of the following trains will register by registering ticket, Form 2642, per Rule 83 (A), when operator on duty:
 N. P. Crossing (Spokane)—all first class trains;
 Marengo—Nos. 11 and 12;
 Hooper Jct.—Nos. 11, 12, 251, 252 and extra trains Sixth subdivision;
 Ayer—Nos. 11, 12 and 78;
 Manito—all trains.

83 (S).—Continued.

The information required by Rule S-83 must be obtained by all eastward Sixth subdivision trains at Wallula; such information may be accepted as applying at Attalia for eastward Yakima Branch trains.

At Zillah, only first class trains will register.

83 (T). Trains moving between Spokane and N. P. Crossing (Spokane) and between Spokane and West Spokane must identify trains between those stations. Trains displaying signals must sound one long and two short blasts of engine whistle to all trains and engines on both tracks between those stations.

83 (U). Westward Sixth subdivision trains and engines may move Attalia to Wallula against or ahead of Yakima Branch first class trains when automatic interlocking signal at Attalia changes to proceed position.

Westward Yakima Branch trains and engines may move Attalia to Wallula against or ahead of first class trains when automatic interlocking signal at Attalia changes to proceed position after junction switch is opened.

Westward first class trains at or seen to be approaching the junction at Attalia will have precedence over other westward trains and engines from Attalia to Wallula.

83 (V). Joint operation of Umapine Spur. Between Prunedale and Umapine and between Prunedale and Johns Spur all trains, engines and motors of the U. P. and the W. W. V. have equal rights in their movements and will be governed by the following rules:

Between Prunedale and Umapine, U. P. conductors will ascertain from agent at Milton whether or not track is occupied. Conductors of trains of either company will pick up staff and register time of departure from Prunedale and upon returning, will register time of arrival, and leave staff at Prunedale, and no train shall leave Prunedale for movement over the spur when the train register and the absence of the staff show that another train is occupying the track. U. P. conductors must notify agent at Milton time of departure and return after each trip.

Between Prunedale and Johns Spur, all trains, engines and motors must proceed at restricted speed.

Trainmen must not ride on top of cars while on Umapine Spur.

84 (A). On freight trains approaching sidings, trainmen must observe both sides of their train, and if everything is all right, a trainman will, if practicable, signal engineman to proceed. Upon receipt of such signal the engineman will sound two long blasts of the engine whistle.

84 (B). A trainman must alight from passenger train at all stops, and give proceed signal when ready to depart. This must be done by the conductor when practicable.

93 (A). First class trains must move within yard limits at restricted speed.

93 (B). Referring to Rule 93. During foggy or stormy weather, trains and engines must afford proper flag protection, regardless of whether a first class train is due or not.

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

Spokane (embracing territory between yard limit sign west of West Spokane to yard limit sign at Hill siding)			
Cheney	Winona	Zillah	Pullman
Marengo	Oakesdale	Midvale	Plummer
Ayer, including Rifton	Seltice	Sunnyside	Chatcolet
Wallula, including Attalia	LaCrosse	Grandview	Harrison
Umatilla	Riparia	Kennewick	Kellogg-Wardner, including Bradley and Sierra Nevada spur
Dishman	Starbuck	Pomeroy	
Fairfield	Alto	Dayton	
Tekoa, including Tilma	Bolles	Waitsburg	
Colfax	Walla Walla	Connell	Wallace, including Wallace Jct.
Crest	Milton	Hooper	
	Pendleton, including W. D. Jct.	Hooper Jct. (on Connell Branch)	Gem Frisco Burke
	Yakima	Moscow	

93 (S). **Joint operation between Walry and Tausick.** Within yard limits extending between Walry and Tausick all trains, engines and motors of the U. P. and W. W. V. have equal rights in their movements and must proceed at restricted speed.

93 (T). **Joint operation at Zillah, Wallula and Huntsville.** Tracks of U. P. and N. P. within yard limits at Zillah, Wallula and Huntsville are used jointly by trains and engines of both companies for switching purposes, being governed by Rule 93.

93 (U). Trains and engines are authorized to cross N. P. main track at Athena to make movements to and from Preston-Shaffer elevator, being governed by Rule 93.

93 (V). **Joint operation at Burke.** All U. P. and N. P. trains and engines using joint track must proceed at restricted speed.

94 (A). When a train is delayed, trains following must be allowed to pass as promptly as possible and the conductor and engineman of the delayed train will be held jointly responsible for delays to following trains.

98 (B). After stopping at a railroad crossing not protected by interlocking, or automatic interlocking signals, when the view is obstructed so that at least 200 feet of the other railroad on each side of the crossing cannot be seen from the point where the train is stopped, a member of the crew must precede the train and give proceed signal from the crossing if safe to proceed, and the train must not proceed over the crossing until the proceed signal has been received.

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

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

After stop has been made for railroad crossings at grade, engineman will sound proceed signal before proceeding.

98 (S). **JUNCTIONS AND RAILROAD CROSSINGS.**

Location	Railroad Crossed, or, Junction With	Trains Which Have Precedence	How Governed
Pendleton.	Oregon Division.		Westward movements from Washington Division between junction and depot is authorized by proceed indication of automatic block signal. When signal at junction switch indicates proceed, trains and engines may proceed regardless of first class trains. When signal at junction switch fails to indicate proceed for westward movement after junction switch is opened, in addition to complying with Rule 509, Oregon Division main track must not be occupied until protected in accordance with Rule 99 against westward Oregon Division trains.
Umatilla. (M.P. 183.9)	Oregon Division.		Oregon Division trains will stop clear of the junction switch connecting east leg of wye and Washington

98 (S).—Continued.

Location	Railroad Crossed, or, Junction With	Trains Which Have Precedence	How Governed
Umatilla. (M.P. 183.9)	Oregon Division.		Division main track, until it has been ascertained whether all Washington Division trains due, which are superior or of the same class, have arrived or left. If a train is seen approaching in either direction on the Washington Division main track, switch must not be opened or Washington Division main track occupied until approaching train has stopped or passed.
Attalia. (M.P. 212.2)	N. P.	N. P. except passenger trains have precedence over all freight trains.	Automatic Interlocking Signals.
Attalia. (M.P. 212.8)	N. P.	N. P. except passenger trains have precedence over all freight trains.	Automatic Interlocking Signals.
Ayer. (M.P. 264.0)	Sixth Sub-division and Tekoa-Ayer Branch.	Westward first class trains seen to be at or approaching junction will have precedence over other westward trains or engines from junction to depot.	Westward trains and engines are not required to comply with Rule S-83 at junction, and movement from junction to depot may be made if signal governing the route being used indicates "Proceed". When such signal fails to indicate "Proceed", movement may be made under protection of flagman as required by the rules.
Marengo. (M.P. 306.4)	C.M. St. P. & P.		Eastward C. M. St. P. & P. trains and engines, after complying with Rule S-83, may move onto U. P. track, upon receiving proceed indication from dwarf signal No. 3068, 180 feet west of spring switch. When dwarf signal fails to indicate proceed after operation of time release, located on pole opposite dwarf signal, in addition to complying with Rule 509, U. P. track must not be occupied until protection in accordance with Rule 99 is afforded.
Spokane. (M.P. 163.3)	N. P. S. C. & P.		Interlocking.

Location	Railroad Crossed, or, Junction With	Trains Which Have Precedence	How Governed
Manito. (M.P. 143.4)	C.M.St.P.&P.		Eastward C. M. St. P. & P. trains and engines, after complying with Rule S-83, will be governed by automatic block signal rules and may move onto U. P. track on proceed signal from switchtender, provided engineer can see that junction switch is properly lined and that there is no conflicting train movement. Westward C. M. St. P. & P. trains and engines must sound one long, one short and one long blasts of engine whistle. If proceed signal is given by switchtender, and engineer can see junction switch is properly lined, train or engine may proceed at restricted speed without stopping for Block Signal 1437.
Farmington. (M.P. 103.2)	N. P.	N. P. except passenger trains have precedence over all freight trains.	Gate. Set normally against N. P.
Garfield. (M.P. 95.3)	N. P.	U. P.	All trains and engines stop before crossing.
Colfax. (M.P. 77.1)	S. C. & P.	U. P.	Gate and automatic interlocking signals. Gate set normally against S. C. & P. Automatic interlocking signal will change to "Proceed" on approach of train or engine if track is clear.
Oakesdale. (M.P. 91.58)	S. C. & P.	U. P.	All trains and engines stop before crossing.
Oakesdale. (M.P. 91.55)	N. P.	U. P.	All trains and engines stop before crossing.
Thornton. (M.P. 82.5)	S. C. & P.	U. P.	Gate.
Riparia. (M.P. 17.3)	N. P.	U. P. except passenger trains have precedence over all freight trains.	Gate. Set normally against N. P.
Walla Walla. (M.P. 47.9)	N. P.	U. P.	All trains and engines stop before crossing.
Walla Walla. (M.P. 47.3)	W. W. V.	U. P.	Gate.

Location	Railroad Crossed, or, Junction With	Trains Which Have Precedence	How Governed
Walry. (M.P. 44.2)	W. W. V.	U. P.	Gate.
Milton. (M.P. 37.0)	W. W. V.	U. P.	Gate.
W. D. Jet. (M.P. 0.53)	N. P.		Movement of U. P. and N. P. trains and engines between W. D. Jet. and O. D. Jet. is authorized by proceed indication of automatic block signal. When signal at junction switch indicates "Proceed", trains and engines may proceed regardless of opposing trains. When signal at junction switch fails to indicate "Proceed" for westward N. P. trains, after junction switch is opened, in addition to complying with Rule 509, Pendleton-Tucannon Branch main track must not be occupied until protection in accordance with Rule 99 is afforded against westward Washington Division trains.
Parker. (M.P. 91.3)	N. P.	N. P. except passenger trains have precedence over all freight trains.	Automatic Interlocking Signals.
Parker. (M.P. 89.4)	N. P.	U. P. except passenger trains have precedence over all freight trains.	Automatic Interlocking Signals.
Villard. (M.P. 7.3)	N. P.	N. P.	All trains and engines stop before crossing.
Auker. (M.P. 28.9)	W. W. V.	U. P.	Gate.
Dayton. (M.P. 13.10)	N. P.	U. P.	All trains and engines stop before crossing.
Dayton. (M.P. 13.11)	N. P.	U. P.	All trains and engines stop before crossing.
Pullman. (M.P. 19.3)	N. P.	U. P.	All trains and engines stop before crossing.
Wallace. (M.P. 80.4)	N. P.	U. P.	All trains and engines stop before crossing.
Wallace. (M.P. 80.6)	N. P.	U. P.	All trains and engines stop before crossing.

98 (T). Train movement over Columbia River Bridge, M.P. 7.44, Yakima Branch, is governed by a derail and semi-automatic interlocking signal located 600 feet east of east end of bridge and a derail and semi-automatic interlocking signal located just east of N. P. crossing, Villard. Normal position of these signals is "Stop", and signal will change to proceed indication on approach of train if block is clear. When signal indicates "Proceed", train may proceed without stopping for drawbridge, observing speed restrictions. When stopped by a signal, and after waiting five minutes, if signal fails to change to proceed indication, a flagman must be sent ahead to the drawbridge before passing over it. If derail switch at signal, and draw span are found properly closed, proceed signal will be given by flagman and acknowledged by engineman and train may then proceed at restricted speed, looking out for broken rail, obstruction, derail switches not properly set or draw span not properly closed. Eastward trains stopped by signal governing this bridge must stand clear of N. P. crossing, Villard.

98 (U). Yakima River Bridge, M.P. 89.35, Yakima Branch, is used jointly with N. P. Automatic block signals govern movement of trains in both directions through gauntlet track over this bridge. All trains must approach gauntlet track at restricted speed and must not exceed 15 MPH through gauntlet track. When a train is stopped by a block signal at approach to gauntlet track, it may proceed when signal changes to proceed indication or by sending flagman ahead a sufficient distance to insure full protection. When passenger and freight trains approach at same time, freight trains must stop before passing block signal about 600 feet from bridge, giving passenger train precedence.

98 (V). All trains and engines must stop at stop boards before crossing drawbridge M.P. 23.45, Wallace Branch, and must not proceed until they have called for, received and acknowledged proceed signal from bridge tender. After waiting five minutes, if proceed signal is not received, flagman must be sent ahead and if draw span is found closed and locked, proceed signal will be given by the flagman and acknowledged by engineman and train may then proceed.

98 (W). All trains must stop before crossing drawbridge, M.P. 17.23, Tekoa-Ayer Branch, and may then proceed if draw span is seen to be closed.

99 (C). In complying with Rule 99, flagman unless sooner recalled must go back one mile from rear of his train. One-half mile from the rear of his train he will place two torpedoes on the rail, continuing back one mile from rear of his train he will place two torpedoes on the rail. He may then return to the two torpedoes one-half mile from rear of his train where he must remain until relieved by another flagman or is recalled by the whistle of his engine.

When conditions, including foggy or stormy weather, obscure curves or descending grades, require that the distance be increased to insure full protection, the flagman will increase the distance, placing two torpedoes at every one-fourth mile.

After the flagman has the necessary torpedoes placed and has returned to the two torpedoes one-half mile from his train, when he is recalled by the engine whistle he may return if safety to his train will permit, removing the two torpedoes from rail at that point. When the conditions require he will leave a lighted fusee, and not remove the two torpedoes at that point.

Should a train be seen or heard approaching before the flagman has reached the required distance, he must at once place two torpedoes on the rail, and if it is by night or during foggy or stormy weather, he must display a lighted red fusee in addition, and continue in the direction of the approaching train and flag it with hand signals.

If the flagman is recalled before reaching the required distance, he will, if necessary, place two torpedoes on the rail by day, and by night or during foggy or stormy weather display a lighted red fusee in addition, to protect his train while returning.

The following signals will be used by flagmen:

Day signals—A red flag, not less than ten torpedoes, three red and three yellow fusees.

Night signals—A red light, a white light, not less than ten torpedoes, three red and three yellow fusees.

99 (D). The duty of flagmen on passenger, freight and mixed trains is to enable prompt and immediate compliance with Rule 99 and Special Rule 99(C). While train is in motion or is standing at points where flag protection is or may be required, flagman must not be called upon to perform any duties other than the protection of his train in compliance with the rules unless specific arrangement is made in each instance with the conductor under which the conductor definitely states at that time that he or one of the brakemen will afford necessary protection of train. Within yard limits when unnecessary to protect or when clear of the main track on sidings, flagman may be called upon to perform duties the same as those of brakemen.

99 (E). To relieve a train from protecting against following extra trains the following form will be used:

All eastward (or westward) extra trains except Extra 77 East (or west) wait at H until four ten 410 PM

Extra trains named except Extra 77 East (or west) must not pass the designated point before the time named in the order.

Extra 77 East (or west) is relieved from protecting against following extra trains at any point beyond the designated station until the time named in the order.

When a regular train is to be relieved from protecting against following extra trains the words "except Extra 77 East (or west)" will be omitted.

101 (C). Trains must be handled carefully where sand is blowing, when weather is foggy or stormy and at points where there is possibility of track being obstructed and no attempt should be made to recover lost time under such conditions.

101 (D). Referring to Rules 101, 101(A) and 101(B). When a train is flagged by a track patrolman in case of storm or indication of storm or high water, patrolman must continue to patrol track ahead of train, if necessary, through the storm area.

101 (E). Trains must not pass over broken rails on curve until joint bars have been placed on both sides of the rail and securely fastened. In case of square break on straight track, trains must stop not less than 200 feet from the break and may then pass over the break not exceeding six miles per hour.

102 (B). When for any reason an engine leaves its train or part of its train behind, and then passes any switch where it would be possible for another train or engine to enter that track between the front and rear portions, the engine must not move against the current of traffic in returning to the rear portion unless a flagman is protecting the return movement at any and all such switches, or the return movement has been authorized and protected by the train dispatcher.

103 (B). Cars must not be handled ahead of engine between stations, except as follows:

When necessary to take cars to or from a spur;
On work trains.

When this is done, it must be for no greater distance than necessary, and the movement must be at slow speed, with air brakes cut in and operative on cars ahead of the engine.

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

When the switches to be passed over can be plainly seen to be properly lined;
Where the movement is over a crossing protected by a crossing watchman on duty. (See Spl. Rule 103-D).

Employes are prohibited from riding on engines or cars as follows:

On engine footboard between engine and cars when cars are being pushed or pulled, except when necessary to make cut between engine and first car;
On leading footboard while coupling engine to cars;
On deadwood, drawbars, brake beams, journal boxes, or brake wheels;
On end of cars containing loads which may shift.

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

103 (D). When one or more cars are being switched or pushed over a road crossing not protected by a watchman or employe assigned as such, or by gates in operation, or, when a road engine, with or without cars, is backing over such a crossing at a station, a member of the crew must precede the movement and act as crossing watchman; and he must not get on front end of the leading car or on rear of tender until it has passed over the crossing.

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

When a crossing watchman is on duty, trainman must not give signal for highway traffic to come ahead.

103 (R). The following will govern trains, engines and motors at the public crossings named below:

Location	Instructions
Spokane—Monroe Street.	Normal position of gate—across track. Movement across street must not be made until gate is open and proceed signal given from middle of street by a trainman or yardman. Gate must be closed promptly after each movement.
Spokane—Division Street.	Instructions for Monroe Street apply also at Division Street, and in addition, unless absolutely necessary, movements across street must not be made between 6:00 AM and 8:00 AM, 11:30 AM and 1:30 PM, 5:00 PM and 7:00 PM. Between the hours of 6:00 AM and midnight, the number of movements across the street is limited to twenty, and the street must not be crossed when to do so would interrupt traffic.
Spokane—At the following streets: Green, Madelia, Hamilton, Cincinnati, Division, Washington, Howard, Monroe, Ash, Cannon.	While switching, if crossing watchman is not on duty, a trainman or yardman must go ahead of train or engine and stop all traffic.
Tekoa—County road at junction switch to Mc-Goldrick's Spur.	Flagman must be on ground and stop all highway traffic, before any movement is made over the crossing.

Note.—Hours of crossing watchmen at Spokane are as follows:

Green Street.....	7:30 AM to 12:01 PM.
Madelia Street.....	1:00 PM to 6:30 PM.
Washington Street.....	6:30 AM to 10:30 PM.
	7:00 AM to 11:00 PM.

104 (B). Spring switches are indicated by a letter "S" on switch target, and trains moving against the current of traffic must stop and examine switch points before passing over them.

After a train or engine has started through a spring switch, the switch must be set by hand for tracks over which movement is being made before a reverse movement is made, or before backing to take up slack. (See Rule 105-R).

104 (C). On all cross-overs between a main track and any other track, both switches must be equipped with switch locks. All switches equipped with switch locks must be locked while trains are passing over them and must be left locked after they have been used.

Switches must not be handled by unauthorized persons.

104 (D). If a switch lock is missing or found to be defective a new one must be supplied.

104 (E). If a rigid split switch is run through it is thereafter unsafe and must be protected.

If an engine or car is run partly through a split switch, the entire movement must be continued; to reverse would result in derailment.

Split switches damaged in this way must be spiked unless the section foreman is on hand and takes charge.

104 (F). When a train or engine is on a siding or other track, waiting to be met or passed by another train, employes must not take position in the vicinity of the main track switch, and must not be between the fouling point and the switch, until the approaching train or trains have passed:

If a person, in violation of Rule 104(A), is observed near a switch leading from a track a train is using, the train must be brought to a stop and wire report made to superintendent.

104 (R). Switches will be set normally at:

Hooper Jct. (Connell Branch)—for line via Park;

Seltice—for line via Colfax;

Winona—for line via Colfax;

Tucannon—for line via Pataha;

Walla Walla passenger station, east switch to No. 2 track—for No. 2 track when passenger equipment is set out on No. 1 track;

Yakima, Walnut Street—for the Seattle main switching lead.

104 (S). Main track derails are located at the following points:

Pomeroy (Opposite water tank) (90 feet west of section house)	Deraill will not be used except when cars are left standing on main track above it.
Dayton (100 feet east of depot) (150 feet east of west switch to cannery track)	
McAdam (500 feet west of west switch)	Deraill will be lined in derailing position only when cars are spotted to foul the main track, or when the warehouse track switches are lined so as to permit loaders to drop cars west onto main track.
Wacota (500 feet west of west switch)	
Estes (500 feet west of west switch)	
Sulphur (500 feet west of west switch)	
Wallace (350 feet east of depot)	Deraill will not be used except when passenger train is standing on main track at the depot west of deraill.
M.P. 81.13 (Wallace Branch)	Old Standard High Line switch lined for high line track to serve as deraill.
Gem (M.P. 84)	Deraill will normally be set in non-derailing position, but must be set in derailing position while switching is being done above it.
Burke (M.P. 86.3)	
Burke (M.P. 86.4)	Deraill must be set in derailing position while switching is being done above it and must normally be set in derailing position.
Sierra Nevada Spur (300 feet east of refinery track switch)	Deraill must be set in derailing position while switching is being done above it.
Sierra Nevada Spur (west of No. 1 track switch at zinc plant)	Deraill will not be used except when cars are left standing on main track above it.

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

The designation "Psgr." includes all passenger, mail and express trains. The designation "Frt." includes freight trains, mixed trains and light engines with or without cabooses.

When a freight engine is used in passenger service on branches, the speed specified under "Frt." must not be exceeded.

Location	Maximum Speed Miles per Hour		Remarks
	Psg.	Frt.	
At any point.	60	40	
At any point.	60	40	With Mikado class engines with 63-inch drivers.
At any point.	45	40	With Mikado class engines with 57-inch drivers.
At any point.	50	40	With 2-10-2 class engines.
At any point.	40	40	With Consolidation class engines.
At any point.	50	40	With Simple Mallet engines.
At any point.	40	40	With Mallet engines.
At any point.	50	40	With C. M. St. P. & P. Class N-3-S engines.
At any point.		35	Light engines.
At any point.	20	20	Engines running backward, with or without cars.
At any point.	30	30	Moving against current of traffic.
At any point.	50		Motor trains.
At any point.		25	With derricks, cranes, hoists, ditchers, steam shovels, rotary snow plows, pile drivers and Rodger or wooden Hart ballast cars loaded with gravel.
At any point.		35	Trains handling Fuller snow plow 0330.
At any point.		15	Jordan spreaders and other snow machines of spreader type, when in operation.
At any point.		20	Trains handling logs, unless cars are staked and wired in accordance with A. A. R. rules.
Through truss bridges.		6	Trains handling logs, unless cars are staked and wired in accordance with A. A. R. rules.
At any point. Main Line.		30	Trains handling scale test car.
Branch Lines.		25	

105 (R).—Continued.

Location.	Maximum Speed Miles per Hour		Remarks
	Psg.	Frt.	
Within yard limits on Sixth Subdivision and between Spokane and Manito.	40	25	Speed must be as much slower as conditions may require.
Within yard limits at any point except on Sixth Subdivision and between Spokane and Manito.	30	15	Speed must be as much slower as conditions may require.
Using cross-overs or turn-outs.	15	15	
On sidings and side tracks.	15	15	
Interlocking.	15	15	
Railroad crossings where governed by automatic interlocking signals with non-operative approach signals.	15	15	Between the two home signals governing movement over the crossing.
On 4 degree curves.	50	40	
On 5 and 6 degree curves.	40	30	
On 7 and 8 degree curves.	35	25	
On 9 and 10 degree curves.	30	20	
On curves of 7 degrees and over.	25	20	With 2-10-2 class engines.
Over spring switches.	15	15	When using turn-outs.
Over spring switches.	20	20	When not using turn-outs, but where switch points will be caused to oscillate under such movement.
Over spring switches.	20	20	When not using turn-out, but when movement is over facing point switch.
Spokane.	15	15	Through Union Station yard limits.
Spokane.	10	10	Over slip switches in Union Station yard.
Sixth Subdivision. West Spokane.		5	Mallet engines on 16-degree curve west end of yard.
Over Bridge 367.13.	10	10	
Over Bridge 365.32.	25	15	
Cheney.	15	15	Over street crossings at grade.
Between Mack and Joso.	45	25	Through tunnels.
Over Bridge 271.70.	25	15	

Location.	Maximum Speed Miles per Hour		Remarks
	Psgr.	Frt.	
Attalia: Westward trains.	15	15	Between the two home signals governing movement over N. P. crossing at M.P. 212.8.
Westward trains.	15	15	Between the two home signals governing movement over N. P. crossing at M.P. 212.2.
Eastward trains.	20	20	Between the two home signals governing movement over N. P. crossing at M.P. 212.2.
Eastward trains.	20	20	Between the two home signals governing movement over N. P. crossing at M.P. 212.8.
Spokane-Tekoa Branch. At any point.	50	35	
Between Spokane and Manito.	60		
Spokane.	15	15	Through tunnel.
N. P. Crossing, Spokane.	15	10	Over slip switches.
Between N. P. Crossing and Mission Ave., Spokane.	12	12	Over street crossings at grade on line through old yard.
Between N. P. Crossing and City Limits, Spokane.	20	20	Over street crossings at grade.
Between Chester and Mica.		25	On descending grade.
Between Manito and Tekoa.		30	
Fairfield.	6	6	Over street crossings at grade.
Tekoa-Ayer Branch. At any point.	50	30	
McGoldrick's Spur, Tekoa.		10	Trains handling logs.
Elberton.	25	25	Over street crossings at grade.
Colfax.	12	12	On streets and over street crossings at grade.
Between Colfax and Crest.	25	12	On descending grade.
Between Mockonema and Thera.	40	25	
Between Seltice and Winona via Thornton.	25	25	
St. John.	6	6	Over street crossings at grade.
Riparia.	5	5	Over Snake River Bridge 17.23.
Between Tucannon and Ayer.	35	25	

Location.	Maximum Speed Miles per Hour		Remarks
	Psgr.	Frt.	
Tucannon-Pendleton Branch. At any point.	50	30	
Between Tucannon and Downing.	40	25	
Between Starbuck and Alto.	30	12	On descending grade.
Walla Walla.	12	12	Over street crossings at grade.
Walla Walla.	8	8	Over west leg of wye.
Milton.	15	15	Over street crossings at grade.
Umapine Spur.	15	15	
Between Barrett and Downing.	30	15	On descending grade.
Athena.	15	15	Over street crossings at grade.
Pendleton.	12	12	Over Thompson, Main and Aura Sts.
Pendleton.	20	20	Over other street crossings within city limits.
Yakima Branch. At any point.	45	30	
At any point.		15	With pile driver 0321.
Yakima.	6	6	Over Yakima Ave. and Walnut St.
Yakima.	10	10	Over other street crossings at grade.
Yakima River Bridge 89.35.	15	15	Through gauntlet track.
Zillah.	25	25	Over street crossings at grade.
Kennewick.	8	8	Over street crossings at grade.
Wallula Branch. At any point.	35	30	
Trains 345, 346 and 78.		25	Within yard limits.
Pomeroy Branch. At any point.	15	15	
Dayton Branch. At any point.	25	25	
Dayton.	6	6	Over street crossings at grade.
Between Dayton and Turner.	15	15	
Connell Branch. At any point.	35	30	
Between Mile Posts: 16 and 27.	20	20	

Location.	Maximum Speed Miles per Hour		Remarks
	Psgr.	Frts.	
Between Mile Posts: 27 and 53.	15	15	
Moscow Branch. At any point.	35	25	
Moscow.	12	12	Over street crossings at grade.
Pullman.	6	6	Over street crossings at grade.
Wallace Branch. At any point.	50	30	
Between Lovell and Chatcolet.	35	20	On descending grade.
Between Chatcolet and Harrison.	40	25	
Wallace.	6	6	Over street crossings at grade.
Between Wallace and Burke.	20	20	Westward trains.
Between Wallace and Burke.	20	10	Eastward trains.
Sierra Nevada Branch. At any point.	10	10	
	15	15	Ascending grade.

Note.—While crossing Bridge 365.32 over Spokane River and Latah Creek between West Spokane and Cowles, and Bridge 271.70 over Snake River between Joso and Chew, trainmen and enginemen must watch train and track closely and be prepared to stop should an emergency arise.

Note.—Figure on stake at beginning of curve indicates degree of curvature.

105 (S). At Walla Walla passenger station, No. 78 will use No. 1 or No. 2 siding instead of the main track.

106 (A). Where the term "engineman" appears in special rules or the Consolidated Code of Transportation Rules it also applies to motorman.

D-151 (R). At points shown below trains and engines may move against the current of traffic without being preceded by a flagman, except when on the time of a first class train or when the view is obscured by weather or other conditions:

Spokane—Between cross-over switches at Spokane Union Station and cross-over near sand house at West Spokane.

204 (B). The rear trainman must be provided with copies of train orders and clearances.

208 (B). When a train's superiority is restricted at the point where it is to receive the order, except at initial stations, the fact must be stated in the order and special precautions must be taken to insure safety; it must be on "31" form, and it must not be made "complete" to the train which is being advanced until the operator has placed two torpedoes on the rail not less than 1000 feet from the train order signal in the direction of the restricted train, and the train dispatcher has assurance that this has been done. The train which is being advanced must approach carefully, expecting to find the main track occupied.

209 (B). Operators must not use typewriters in writing train orders or clearances.

220 (B). A slow order issued to a conductor or engineman continues in effect to them, although the schedule or section number or the running order of their train be changed.

221 (E). Unless some form of block signals is used, operators must space trains ten minutes apart, using the train order signal or clearance for that purpose.

When the clearance is delivered before the expiration of the ten minutes the operator must write on it the time the train may go in the following form, in the margin of the clearance: ".....(Train Number).....may go at.....(Time).....M," and conductors and enginemen must respect this time.

509. The indication of signals shown under Figure 501 AA in Consolidated Code is changed to "Stop" and name changed to "Stop Signal". Consolidated Code Rules 508 (C), 509 (A) and 509 (B) are superseded by the following:

When a train is stopped by a stop signal (see Figures 501 A and 501 AA), it may proceed when the signal changes to an approach indication (see Figure 501 B), or to a proceed indication (see Figure 501 C); or—

(a) On single track, a flagman must be sent ahead immediately, looking out for a train, obstruction, broken rail, switch not properly lined, slide warning fence plugs, or anything that may affect movement of train. The train must wait five minutes after the flagman has started, then proceed at restricted speed through the entire block to the next home signal, prepared to stop short of train, obstruction, or switch not properly lined, and be on lookout for broken rail, or anything that may affect movement of train. If a point is reached from which track ahead is seen to be clear and the signal next in advance is in plain view, flagman may be picked up and train proceed at restricted speed to the next home signal; except that flagman must continue to precede the train outside of yard limits at night.

(b) On single track, after stopping, if the track ahead is seen to be clear and next signal in advance is in plain view, two long blasts of engine whistle must be sounded, and train may proceed at once at restricted speed through the entire block to the next home signal, without sending flagman ahead; except that flagman must be sent ahead outside of yard limits at night.

(c) On two or more tracks, after stopping, two long blasts of engine whistle must be sounded, and train may proceed at once at restricted speed through the entire block to the next home signal.

509 (D). When a streamline train or a light engine or a motor train with only one trainman is stopped by a block signal under conditions making it necessary to send a flagman ahead to comply with Rule 509, after placing two torpedoes immediately at rear of train, it may proceed at restricted speed without sending a flagman ahead, prepared to stop short of train, obstruction, or switch not properly lined, and be on lookout for broken rail, or anything that may affect movement of train.

509 (E). When a train is stopped by a block signal at a meeting or passing point under conditions requiring a flagman to be sent ahead to comply with Rule 509, if the engineman of the train which is stopped is verbally informed by a trainman of the train on the siding that his train has more cars than the siding will hold, the train which is to use the main track may proceed at restricted speed without sending a flagman ahead, prepared to stop short of train, obstruction, or switch not properly lined, and be on lookout for broken rail, or anything that may affect movement of train.

509 (F). Where a flagman is preceding train in compliance with Special Rule 509, flagman in addition to looking out for obstruction, train in the block, etc., should watch rock protection fence and if plug is found pulled with no obstruction on the track, should if possible replace the plug, conductor to make report from first open telegraph office.

509 (R). Slide detector signals, designated by triangular shaped number plates, are in service between M.P. 41 and M.P. 42, Yakima Branch. When signals display restrictive indication, trains and engines must stop before passing and may then proceed at restricted speed, looking out for damaged rails or obstruction. Normal speed may be resumed after passing signal at opposite end of protected territory.

When a train or engine is stopped by slide detector signal report must be made to chief dispatcher and superintendent from first open telegraph office.

520. If a block signal fails to display its most restrictive indication when a train enters a block, thus giving a "false-clear" indication, a member of the crew must be left at the signal; the superintendent and the train dispatcher must be notified from the first available point of communication; except that a light engine, or motor train with only one trainman, need not leave a man at the signal.

The employe left at the signal must stop and notify all trains moving in the direction governed by that signal and must remain there until relieved by an employe of the Signal Department or by instructions from the proper officer.

673 (R). To indicate the route to be used through interlocking, the following whistle signals will be used: (The signals prescribed are illustrated by "o" for short sounds; "—" for long sounds).

At N. P. Crossing, Spokane:

For Spokane Union Station.....	o o o
For old yard.....	o o o o
For East Spokane.....	o o o o
For N. P. transfer.....	o o o
For S. C. & P. transfer.....	_____

700. Employes who are dishonest, immoral, quarrelsome or otherwise vicious will not be retained in the service.

701 (A). Each employe governed by Hours of Service Law must notify proper officer of the time the law requires him to be off duty early enough that he may be relieved, if necessary, before exceeding the hours of service permitted by law.

701 (B). Operators governed by Hours of Service Law must not change hours, or work at any time outside of assigned hours, without authority from the chief dispatcher.

701 (R). Allowance for empty and underloaded cars as indicated below must be reported as required by Instruction 8 on Form 1216, "Conductor's Car and Tonnage Report".

	For each empty or loaded car weighing less than 40,000 pounds. (Incl. light weight of car)	For each empty or loaded car weighing between 40,000 and 50,000 pounds. (Incl. light weight of car)
Spokane and Tekoa	3000 lbs.	
Tekoa and Ayer	3000 "	
Tucannon and Pendleton	3000 "	
Starbuck to Pomeroy	3000 "	
Turner and Bolles	3000 "	
Connell to LaCrosse	3000 "	
Colfax to Moscow	3000 "	
Tekoa and Burke	3000 "	
All other	6000 "	3000 lbs.

701 (S). The maximum gross weight of cars that may be handled between stations is shown below:

	Limit
Umatilla to Manito, via Ayer, Marengo and Spokane	No Limit
Between Riparia and Tucannon	210,000 lbs.
Between Hooper Jct. and Connell	170,000 "
All other	200,000 "

Exception: Pile Driver 0321 weighing 222,200 lbs. may be handled on all branch lines except Dayton and Pomeroy Branches and between Hooper Jct. and Connell on Connell Branch. Trains handling this pile driver on Yakima Branch must not exceed 15 MPH.

When handling pile driver 0321, or a car weighing 210,000 lbs., over Bridge 17.23 at Riparia, there must be at least four cars between such car or pile driver and engine or between pile driver and such car and any other car weighing more than 160,000 lbs. gross.

711 (R). Passengers may be carried on freight trains between stations at which the trains stop, as follows:

Persons in charge of livestock or other freight when provided with proper transportation;

Employes with passes when traveling on company business;

Passengers with revenue tickets when presented for passage on:

Trains	Between Stations
251	Spokane and Umatilla
252	Umatilla and Wallula
252	Ayer and Spokane
365-366	Dayton and Walla Walla.

Passengers must not be loaded on freight trains until train is ready to leave. Stockmen must be given an opportunity to board caboose or drover car while train is standing.

Agents and conductors must notify passengers that local freight or mixed trains will stop with caboose opposite platform for them to get on or off.

727 (A). Rule 727 is modified as follows:

When a red flag or red light is found between the rails of the track, or on the engineman's side of track, the train must stop and after a reasonable effort has been made to ascertain the cause, if it is found that there is no one there to explain, a flagman must be sent ahead and the train may proceed following the flagman very carefully. After following the flagman for not less than one-fourth mile, if conditions are such that it can be plainly seen that it is safe for the train to proceed, the flagman may be picked up and the train proceed at restricted speed for at least one mile. If it cannot be plainly seen that it is safe for the train to proceed, the train must follow the flagman as far as conditions may require. If the red flag or red light is on the track it must be replaced.

When a light engine or motor train with only one trainman is stopped by a red flag or a red light, it may proceed at restricted speed without sending a flagman ahead, prepared to stop short of train, obstruction or switch not properly lined, keeping a close lookout for broken rail, flood-damaged track or bridge or anything that may affect movement of train.

728 (A). Rule 728 is modified as follows:

The red flag by day, and in addition the red light at night, will be placed twenty instead of fifty rail lengths from the point of obstruction. The flagman will be located with the yellow signals, one mile beyond the red signal. On the approach of a train the flagman will display the yellow signals, which must be acknowledged by the engine whistle. In territory designated by the superintendent, the yellow signals will be placed as prescribed and the flagman will not be required except during foggy or stormy weather.

729. Employes must not ride on pilot of an engine nor go between moving engines or cars to uncouple, open, close or arrange knuckles of couplers, or to manipulate other equipment. They must not remove any of the appliances of an engine or car for convenience in switching which would endanger the safety of themselves or of others, nor follow other dangerous practices.

801 (R). There are close clearances above and at the side of main tracks as shown below, and in addition thereto, at platforms and other structures above and at the side of industry, stock and other tracks:

Location	Structure or Obstruction	Clearance of engine or car is close at—
At all stations.....	Mail cranes.....	Side.
Sixth Subdivision		
M.P. 199.93.....	Bridge.....	Side.
M.P. 210.11.....	Bridge.....	Side.
M.P. 229.5.....	Tunnel No. 7.....	Top and side.
M.P. 235.0.....	Tunnel No. 8.....	Top and side.
M.P. 242.4.....	Tunnel No. 9.....	Top and side.
M.P. 275.1.....	Tunnel No. 10.....	Top and side.
M.P. 275.5.....	Tunnel No. 11.....	Top and side.
M.P. 276.0.....	Tunnel No. 12.....	Top and side.
M.P. 276.3.....	Tunnel No. 13.....	Top and side.
M.P. 276.5.....	Tunnel No. 14.....	Top and side.
M.P. 278.36.....	Overhead bridge.....	Top and side.
M.P. 281.3.....	Tunnel No. 15.....	Top and side.
M.P. 286.78.....	Overhead bridge.....	Top and side.
M.P. 292.1.....	Tunnel No. 16.....	Top and side.
M.P. 294.4.....	Tunnel No. 17.....	Top and side.
M.P. 305.62.....	Overhead bridge.....	Top and side.
Marengo.....	Oil tank spout.....	Top and side.
M.P. 325.70.....	Overhead bridge.....	Top and side.
M.P. 329.46.....	Overhead bridge.....	Top and side.
M.P. 337.20.....	Overhead bridge.....	Top and side.
M.P. 352.13.....	Bridge.....	Side.
M.P. 353.57.....	Overhead bridge.....	Top.
M.P. 353.94.....	Overhead bridge.....	Top.
M.P. 357.95.....	Overhead bridge.....	Top and side.
M.P. 357.48.....	Overhead bridge.....	Top and side.
M.P. 358.22.....	Overhead bridge.....	Side.
M.P. 363.76.....	Overhead bridge.....	Side.
Spokane.....	Umbrella sheds.....	Side.
Yakima Branch		
M.P. 7.44.....	Bridge.....	Top and side.
M.P. 11.52.....	Bridge.....	Top and side.
M.P. 14.16.....	Overhead bridge.....	Top and side.
M.P. 16.06.....	Bridge.....	Side.
M.P. 24.35.....	Overhead bridge.....	Top.
M.P. 35.89.....	Bridge.....	Top and side.
M.P. 53.36.....	Bridge.....	Side.
M.P. 56.83.....	Bridge.....	Side.
M.P. 58.03.....	Bridge.....	Side.
M.P. 58.19.....	Bridge.....	Side.
M.P. 73.03.....	Bridge.....	Side.
M.P. 73.20.....	Bridge.....	Side.
M.P. 73.30.....	Bridge.....	Side.
M.P. 89.35.....	Bridge.....	Top and side.
Union Gap.....	Overhead bridge.....	Top.
Tekoa-Ayer Branch		
M.P. 26.3.....	Tunnel No. 27.....	Top.
M.P. 17.23.....	Bridge.....	Top and side.
M.P. 19.96.....	Bridge.....	Side.

801 (R).—Continued.

Location	Structure or Obstruction	Clearance of engine or car is close at—
M.P. 26.73.....	Bridge.....	Side.
M.P. 77.23.....	Bridge.....	Top and side.
M.P. 90.27.....	Bridge.....	Top and side.
M.P. 93.01.....	Bridge.....	Side.
M.P. 94.70.....	Overhead bridge.....	Top.
M.P. 98.03.....	Bridge.....	Side.
M.P. 112.97.....	Overhead bridge.....	Top.
M.P. 115.79.....	Bridge.....	Side.
M.P. 115.86.....	Overhead bridge.....	Top.
Spokane-Tekoa Branch		
M.P. 143.67.....	Overhead bridge.....	Side.
M.P. 163.56.....	Bridge.....	Side.
M.P. 164.06.....	Bridge.....	Top and side.
Spokane.....	Market St. bridge.....	Top and side.
Spokane.....	Division St. bridge.....	Top.
Spokane.....	Tunnel, westward track.....	Top and side.
Spokane.....	Tunnel, eastward track.....	Top and side.
Moscow Branch		
M.P. 8.54.....	Bridge.....	Top and side.
M.P. 18.77.....	Bridge.....	Top.
M.P. 18.97.....	Bridge.....	Top and side.
M.P. 19.28.....	Overhead bridge.....	Top.
Wallace Branch		
M.P. 0.14.....	Bridge.....	Side.
M.P. 16.30.....	Bridge.....	Top and side.
M.P. 23.45.....	Bridge.....	Top and side.
M.P. 55.56.....	Bridge.....	Side.
M.P. 58.01.....	Bridge.....	Top and side.
M.P. 62.14.....	Bridge.....	Top and side.
M.P. 63.48.....	Bridge.....	Top and side.
M.P. 64.03.....	Bridge.....	Side.
M.P. 72.59.....	Bridge.....	Side.
M.P. 79.36.....	Bridge.....	Top and side.
Pleasant Valley Branch		
M.P. 1.51.....	Bridge.....	Top and side.
M.P. 41.21.....	Overhead bridge.....	Top.
Tucannon-Pendleton Branch		
M.P. 0.51.....	Bridge.....	Top.
M.P. 36.86.....	Bridge.....	Side.
M.P. 74.14.....	Overhead bridge.....	Top and side.
Wallula Branch		
M.P. 10.01.....	Overhead bridge.....	Top and side.
M.P. 14.32.....	Bridge.....	Side.
Connell Branch		
M.P. 15.13.....	Bridge.....	Side.
M.P. 15.71.....	Overhead bridge.....	Top and side.

801 (S). In moving cars on tracks under overhead trolley wires at S. C. & P. transfer track, Spokane, employes are warned that overhead clearances to such wires and side clearances to supporting trolley poles are close. Trolley wires must not be touched and careful lookout must be kept for low and broken wires.

802 (A). Cars must not be left on, nor foul of, lead tracks in yards when it can be avoided. When it is necessary to do so, the yardmaster, agent or operator must be immediately advised and he will notify trains entering or leaving the yard. "This

802 (A).—Continued.

does not relieve trainmen, yardmen or enginemen from proper observance of yard rules, and they will be held accountable for yard accidents on lead tracks, as well as on any other track in yard, whether such notice is received or not.

802 (R). When storing cars at stations or on sidings, all cars except flat cars and cars of all steel construction, must be separated into cuts of 10 cars each 100 feet apart and must not be placed alongside of warehouses or other wooden buildings when it can be avoided.

Cars spotted on tracks other than warehouse tracks must clear street line of public crossings not less than 100 feet. If possible, when a train is parted to clear a public crossing or is standing near such crossing, a clear space of 100 feet will be left on each side of crossing.

Cars may be placed for loading and storage on all industrial tracks and all sidings equipped with derails, except sidings between Umatilla and Spokane on Sixth Subdivision and sidings between Spokane and Darknell.

803 (A). Roadway equipment, such as ditchers, pile drivers, rail loaders, bridge derricks and similar machines must not be dropped either singly or coupled to other cars, but must be shoved to a stop.

Cars of any kind must not be "poled" or "staked" by yard or road crews when it can be avoided.

805 (A). Snow plows must not be operated through drifts when trains are seen approaching or are passing on an adjacent track. Flangers must be raised when passing over bridges, highway crossings, railroad crossings, frogs and switches and through interlocking limits.

Work trains unloading ballast or cinders on two or more tracks must stop when a train is passing on an adjacent track.

Rotary snow plows handled in freight trains must be entrained next to the caboose with rotary wheel to the rear.

805 (B). Dead engines, disabled engines, or engines with one or more rods taken down must not be hauled in fast freight trains when it is possible to avoid it.

With side rods or main rods down, a speed of 15 MPH must not be exceeded.

With side rods and main rods in place the maximum speed may be increased to 25 MPH, unless otherwise restricted.

Geared engines of the Shay, Climax, Heisler and similar types, when not in gear, may be handled at speed permitted for freight trains over the district handled, unless waybill specifies a lower speed, or attendant in charge requests in writing a lower speed.

In handling a dead engine it must be placed twelve cars behind the road engine, and if a second dead engine is in the train it should be twenty-five cars behind the road engine. In handling three dead engines in train, place fifteen cars between each engine.

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

Between points where separate trains are operated for freight service only, cars containing explosives must not be handled in a train that carries passengers. (BE 676).

Between points where only mixed train service is operated, or where passengers are carried in the caboose of a freight train, a car containing a freight shipment of explosives, or a tank car placarded "Inflammable" may (unless otherwise instructed) be hauled, but such cars must not be placed next to a car carrying passengers. (BE 676).

Cars placarded "Explosives" must be placed in through freight trains near the middle of the train and must not be nearer than the 16th car from the engine, electric locomotive, or motor car, nor the 11th car from the caboose, or other cars carrying passengers, if the length of the train will permit. (BE 677-a).

Cars placarded "Explosives" may be placed in local freight, local pick-up, and local set-out trains not nearer than the second car from the engine, electric locomotive, motor car, caboose or other cars carrying passengers, when placing them near the middle of the train would require additional switching at way stations. (BE 677-b).

Cars placarded "Explosives" must have hand and air brakes in service and must not be placed next to cars placarded "Inflammable" or "Corrosive Liquid", nor

805 (C).—Continued.

next to empty or loaded tank cars, wooden frame flat or gondola cars, nor next to carloads of pipe, lumber, poles, iron, steel, or similar articles liable to shift and break through end of placarded car; nor next to cars containing lighted heaters, stoves or lanterns, or occupied by attendants. (BE 676-677c-677d).

Placarded 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 gondola or flat cars with lading such as logs, lumber, rails or pipe that is likely to shift, and when practicable must be placed not nearer than the sixth car from the engine, electric locomotive, motor car, caboose, or other cars carrying passengers. (BE 677-e).

When handling cars placarded "Explosives" in yards or on sidings, such cars must be coupled to an engine, electric locomotive or motor car protected by a car between. (BE 678-a).

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

When placards become detached in transit, conductor must see that they are replaced upon arrival at the next terminal, if in through trains, or at first station stop if in local freight trains. (BE 675).

Note.—"BE" numbers shown above refer to correspondingly numbered regulations of the Bureau of Explosives, Interstate Commerce Commission.

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

Drover cars, occupied or unoccupied;

Scale test cars;

Cars with emergency drawbars;

Outfit cars;

Emigrant movables (except steel underframe cars may be placed near head end when so requested by attendant in charge);

All wooden underframe cars;

Any car tagged with Form 4725 reading: "Handle only at rear end of train".

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

When a helper engine is used, it must be cut in ahead of drover cars. (See Special Rules 805-E, 805-R and 805-S).

Live stock must be handled in head end of train when practicable. Horses moving in stock cars must be handled at least three cars from the engine.

Stock cars loaded with scrap, boards, engine wood, long rods, bolts, or any commodity which might work out of openings in sides or ends of car, must not be moved until these openings are properly slatted.

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

(a) When not containing live stock or perishables, may be chained up in train and handled to first available side track where must be set out to be repaired;

(b) When containing live stock or perishables, may be chained up in train and handled to first repair point;

(c) When containing any commodity or empty, may be handled behind the caboose to destination or to first terminal, provided the good drawbar can be coupled to the caboose and in addition is secured by chain, and has air and hand brakes operative. On ascending grades a trainman must ride the car.

805 (E). When not used on head end of train, helper engine must be cut in ahead of caboose, and when there are wooden underframe cars, outfit cars, drover cars, scale test cars, cars with emergency drawbars, or cars carded to be handled on rear of train, the helper engine must be cut in ahead of them.

805 (F). Jordan spreaders or other spreaders of that class, when handled in freight trains, must be headed in the direction train is moving. When handled in work train, the wings must be properly secured.

805 (G). In helper districts, engines must not be backed down hill where wye tracks or turntables are available for turning engines, except in emergencies. When such back-up movement is necessary, engineman must first secure authority from train dispatcher.

805 (H). In freight trains, express refrigerators must be placed at least one car from engine.

In freight or passenger service there must be one other car between any two Pennsylvania express refrigerator cars.

805 (R). Engines must not be double-headed over Snake River Bridge 17.23 at Riparia.

805 (S). Engines equipped with pilot plow which requires extension of drawbar, must not be used as helpers unless placed at head end of train.

806 (A). Before occupied outfit cars or drover cars are coupled into, the occupants must be notified. These cars must not be switched with except in handling to or from trains.

811 (A). The use of alcohol or oil lamps or other heating devices not a part of car equipment, by passengers or employes in passenger train cars, is prohibited.

811 (B). The following will govern use of fire fighting equipment on passenger engines:

(a) Shut off steam heat on engine.

(b) Shut off steam heat train line at rear or front of the car that is on fire, depending on the direction of the wind, so as to be on the windward end, and disconnect the steam hose.

(c) Couple up the fire hose that has been taken from the engine tender to the steam heat line on car toward the engine.

(d) Fireman, on signal from trainmen that they are ready, will put on injector and open the water line that connects the branch pipe to the steam heat line; in a short time water will be ejected from the fire hose.

812 (A). When a break-in-two occurs, after the train is coupled and ready to move, trainmen must make inspection as the train pulls by them, looking for draft rigging and coupler defects and at next stop they must carefully inspect entire train.

812 (B). When a car is set out account hot box, the packing must be removed from box which was running hot. Brasses and oil-soaked waste removed from cars on road must be retained and exchanged for new, leaving old waste in bucket and brasses on caboose platform.

812 (C). When necessary to remove keys from brake heads, or when working on brake rigging, cut-out cock in branch pipe must be closed and reservoirs bled. Where cut-out cock is located in cylinder pipe, the latter only need be closed. All keys must be replaced before brakes are cut in, to avoid personal injury.

812 (D). When brakes are sticking, conductors must wire superintendent, assistant master mechanic and trainmaster, and must notify mechanical foreman at next terminal in advance, giving initials, number and location of car in train.

812 (E). White bands painted on telegraph or signal line poles indicate car length distance from switch of siding as follows: One band, 40 cars; two bands, 55 cars; three bands, 70 cars; four bands, 95 cars.

812 (R). In addition to making inspection of train as often as practicable as per Transportation Rule 812 and Air Brake Rule 1059(A), freight trains must stop and be given walking inspection by train crews at following points:

Simmons — Eastward and Westward;
Marengo — Eastward and Westward.

No. 252 or when this train is run extra will not stop and be given walking inspection by train crews between Wallula and Ayer.

When freight trains meet Nos. 11 or 12 or let Nos. 11 or 12 by at Ash, Page or Scott or stop to take water at Walker Pit or Page, inspection may be made at those points instead of Simmons.

Trains handling loaded ballast cars out of Walker Pit must make walking inspection of their train at Scott or Simmons.

818 (A). Enginemen on passenger and freight trains, when making maximum speed, must make application of air brakes approaching curves and on heavy curves keep brakes applied sufficient length of time around curve to steady train.

This is modified to the extent that on passenger trains, in order to avoid surging or rough riding of cars on curves, where operating conditions will permit, speed of train will be controlled so that brakes will be released while train is passing around curves and the train should be pulled around curves with brakes released.

854 (A). In freight train service, head brakeman is not permitted to ride in caboose regardless of number of cars in train. This does not apply to mixed trains.

854 (B). Train and engine men must not undertake their personal cleaning up or changing of clothing while on duty, or prior to arrival at terminal.

873 (A). Trainmen must use every effort to keep unauthorized persons off their train, and when unable to do so peaceably, chief dispatcher must be notified by wire so that officers may be called to assist.

874 (A). Before departure from stations where visitors are permitted on trains, train employes must announce: "Visitors off, please."

881 (A). When passenger train cannot be properly heated, or upon failure of air conditioning, wire report must be made to designated officers.

During snow storms or extremely cold weather, engine must not be detached from passenger train if it can be avoided; if it becomes necessary to do so, or if train is separated for any reason, trainmen and enginemen must exercise care, drain steam line and disconnect steam hose between cars, if necessary, to prevent freezing.

Engine or detached portions of train must be recoupled and steam line again connected as quickly as possible to avoid discomfort to passengers.

882 (A). Gate at front end of first coach next to baggage or mail cars must be closed at all times in order to prevent possibility of personal injury to passengers account buffers between these two cars not being protected by curtains.

When occupied passenger equipment is being switched or while standing uncoupled, open ends of cars must be protected by closed gates. Also, rear gate must be closed on moving trains.

The vestibule curtains must be drawn across the diaphragms on dead-head or occupied passenger equipment while being handled in passenger, mail and express trains.

882 (B). As a precaution against personal injuries to passengers, trainmen will use the words "Please Watch Your Step", when passengers are boarding or alighting from train.

920 (A). Enginemen must see that engine is supplied with twelve torpedoes and not less than three red fuses.

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

922 (B). Use of locomotive boiler running board when going between cab and front end of locomotive to put up or take down signals or indicators is prohibited, except on locomotives equipped with pilot plows.

923 (A). Due to the extremely high temperatures developed in cylinders, superheated locomotives cannot be drifted with tightly closed throttle without serious damage to lubrication, cylinder packing, rod packing, building up carbon deposits, and seriously injuring the service of the engine. It is therefore necessary to keep a certain amount of steam in the cylinders of superheated engines while they are moving.

The following rules must be observed on all superheated engines:

On all drifting grades the main throttle of all engines must be partly open or cracked a sufficient amount to prevent a vacuum in the cylinders.

In approaching a stop, a small amount of steam should also be worked through the cylinders. The throttle should never be entirely closed but the pressure gradually reduced with the throttle until freight engines are down to approximately 4 miles an hour when throttle should be closed. On engines in passenger train service, the throttle may be closed approximately one train length before the stop when this is necessary in order to make a satisfactory stop. However, it is permissible when conditions are favorable, such as working slowly to a stop up heavy grades, to work steam to an entire stop.

While drifting, the reverse lever should be in the highest cut-off consistent with proper cushioning of the moving parts.

On engines approaching or stopping at passenger stations and working a light throttle, the reverse lever should be moved towards the corner sufficiently so that the engine will drift smoothly and without pounding in the rods and boxes; the drifting pressure can be controlled in this way with the reverse lever as well as with throttle. These rules do not apply to emergency stops.

Mallet engines must not be cut into simple except to assist in starting train.

929 (A). Enginemen on freight engines which are equipped with smoke deflectors, must test deflectors before entering tunnels and if it is found they are inoperative by air pressure, train must be stopped, and deflectors raised by hand. Such cases of inoperative deflectors must be reported to superintendent and assistant master mechanic by wire from first open telegraph office at which stop is made, and in addition thereto, must be reported on arrival at terminal.

932 (R). 700 class and heavier engines, except 1733 to 1741 inclusive, must not go on the following tracks:

- East Spokane —New industry track, except that Engines 710 to 719 inclusive, may operate on this track;
- Tekoa —East switch elevator track;
McGoldrick Lumber Company spur;
- Walla Walla —Eureka mill track;
Rose Street cross-over, except that Engines 705 to 707 inclusive, may operate on this track; 730 class engines may operate on this track to east side of Rose Street only;
Pacific Fruit spur;
Gardners' Association track, except that Engines 705 to 707 inclusive, may operate on this track;
Cannery spur, except that 730 class engines may operate on this track in front of cannery;
Garden City Mill track;
- Yakima —East of "A" Street; when switching with this class engine between Walnut and "A" Streets, engine will hold onto sufficient cars to make it unnecessary to put engine through lead tracks connecting with the Seattle main;
- Sunnyside —Trailing point movement only through east switch run-around track, at N. P. Transfer.

730 class and heavier engines must not go on the following tracks:

- Riparia —Depressed ice track;
Spurs 1, 2 and 3.

2100 class and heavier engines must not go on the following tracks:

- Spokane —Loop 4 track, West yard;
Spokane Flour Mill trestle and Centennial Mill scale;

932 (R).—Continued.

- Tekoa —Outbound engine track;
- Walla Walla —Switches at east end of tracks 2 and 3;
Northern Pacific transfer track;
All industry tracks;
West leg of wye, except that Mikado class engines may head around west leg of wye from the passenger station;
- Kennewick —Wye track.

5400 class and heavier engines must not go on the following tracks:

- Hooper Jct. —West leg of wye;
- Walker Pit —On cross-over and curve, east end of pit track.

Engines must not be placed on or moved over the high-line ore bins of the Hecla Mining Company at Gem nor the Bunker Hill & Sullivan overhead scale at Kellogg.

All engines are prohibited from using Umapine Branch, Prunedale to Umapine and Yellowhawk Branch, Walry to Tausick.

AIR BRAKES

1014 (R). Engines in freight or mixed train service will carry 90 pounds air brake pipe pressure on the Sierra Nevada Spur, between Wallace and Burke and on descending grades between Crest and Colfax, Starbuck and Bolles, Barrett and Weston, Lovell and Chatcolet.

Engines in passenger service between Spokane and Pendleton, Moscow and Ayer and Lewiston and Ayer will carry 90 pounds brake pipe pressure.

Engines in passenger service between Tekoa and Wallace will carry 70 pounds brake pipe pressure.

1044 (R). Road train brake test, as prescribed in Air Brake Rule 1044(A), must be made on all freight trains before descending grade Weston to Barrett, Alto to Starbuck, Crest to Colfax, Watt to Chatcolet, Burke to Wallace, Sierra Nevada Mine to Bradley, and this test must also be made at intermediate points on these grades either ascending or descending, whenever engine is changed, cars picked up or set out, air hose parted, angle cock turned or train has been standing for 30 minutes or more.

Before descending grade Jerita to Hay, Mica to Chester and Watt to Lovell, after stop has been made, brakes must be fully applied and before proceeding it must be known that brake pipe pressure is restored as indicated by caboose gauge, and that rear brakes are released. In the absence of caboose gauge, test must be made as prescribed in Rule 1040.

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

1051 (R). Running test as prescribed in Air Brake Rules 1051 and 1051(A) must be made before descending grades as follows:

- Spokane-Tekoa Branch—eastward trains at Darknell and Freeman;
- Tekoa-Ayer Branch—westward trains at Jerita; eastward trains at Crest;
- Tucannon-Pendleton Branch—eastward trains at Weston; eastward and westward trains at Alto;
- Wallace Branch—eastward and westward trains at Watt; eastward trains at Burke;
- Sierra Nevada Branch—eastward trains at Sierra Nevada Mine.

1051 (S). At Spokane Union Station, passenger trains will make running air test only after leaving the elevated structure.

1060 (B). Trainmen must know that hand brakes are in good condition on cars that have air brakes cut out.

1063 (B). Air Brake Rule 1063(A) is modified as follows:

If the train has not more than 12 cars and stop is being made, except on a downward grade of 1% or more, the brakes should be released so that they will be about off when the stop is completed, this being called "pre-release". With longer trains hold the brakes applied until stopped.

1064 (B). Air Brake Rule 1064(A) is amended as follows:

After release of brakes, attempt to start train must not be made until ample time has been allowed for all brakes to release.

Engine must be kept at very slow and uniform speed for three car lengths, as less distance may not have started entire train; except in starting on heavy descending grades, engine should be moved forward one or two feet and then by use of engine brakes stop the engine a sufficient length of time for slack to run gently and start entire train. If first movement fails to run slack sufficiently to start entire train, repeat this movement until entire train is started.

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

1077 (R). Retaining valves must be used on descending grades as follows:

BRANCHES	PASSENGER TRAINS	FREIGHT TRAINS
Spokane-Tekoa .....	.....	Mica and Chester.
Spokane-Tekoa .....	.....	Darknell and Rockford.
Tekoa-Ayer	Crest and Colfax.....	Crest and Colfax.
Tekoa-Ayer .....	.....	Jerita and Hay.
Tucannon-Pendleton..	Alto and Relief	Alto and Starbuck.
Tucannon-Pendleton..	.....	Alto and Menoken.
Tucannon-Pendleton..	Weston and Bade.....	Weston and Barrett.
Dayton.....	.....	Turner and Dayton.
Wallace.....	.....	Watt and Lovell.
Wallace.....	.....	Watt and Chatcolet.
Wallace	Burke and Wallace.....	Burke and Wallace.
Sierra Nevada	Sierra Nevada Mine and Bradley.	Sierra Nevada Mine and Bradley.

1077 (R).—Continued.

On passenger trains, as indicated above, all retaining valves must be used.

Mixed trains need not use retaining valves Darknell to Rockford and Mica to Chester.

On freight trains descending grades Mica to Chester, Darknell to Rockford, Jerita to Hay, Alto to Menoken, Turner to Dayton, trains averaging not in excess of 50 gross tons to the car may be handled without use of retaining valves. The responsibility for use of retaining valves rests primarily with the engineman and he will direct as to their use. However, retaining valves must be used, if in the judgment of the conductor their use is necessary. On trains averaging in excess of 50 gross tons per car, one-half of the retaining valves must be used consecutively from the head end of the train.

On freight and mixed trains Crest to Colfax, Alto to Starbuck, Weston to Barrett, Burke to Wallace and Sierra Nevada Mine to Bradley, all retaining valves must be used.

Freight trains descending grades between Watt and Lovell and between Watt and Chatcolet must use one operative retaining valve for each 50 tons of train, but in no case less than one-half of all retaining valves. If engineman finds it difficult to hold train or to recharge he must request trainmen to turn up such additional retaining valves as are necessary to insure safe control of train, stopping train if necessary.

On freight trains, trainmen must patrol top of train where retaining valves are used.

1079 (R). In addition to making inspection of train as often as practicable as per Rule 812, freight trains must stop and remain standing ten minutes to allow wheels to cool, at the following points:

Relief —Eastward;
Blue Mountain or Bade—Eastward.

Mixed trains must stop five minutes at Bade for inspection and to allow wheels to cool.

RATING OF ENGINES IN FREIGHT SERVICE IN TONS OF 2000 POUNDS

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

TYPE OF ENGINE	NUMBERS (Inclusive)	SPOKANE-UMATILLA						SPOKANE-TEKOA					
		WESTWARD			EASTWARD			WESTWARD				EASTWARD	
		Spokane to Ayer	Ayer to Wallula	Wallula to Umatilla	Umatilla to Humorist	Humorist to Ayer	Ayer to Spokane	Spokane to Chester	Chester to Fairfield	Fairfield to Latah	Latah to Tekoa	Latah to Freeman	
MS 59 $\frac{23-23}{30}$ 472	3500 to 3564 3705 3803 to 3805	6000	6000	6000	6000	6000	6000						
MC 57 $\frac{26-41}{32}$ 464	3601 to 3613	6000	6000	6000	6000	6000	6000						
TTT 63 $\frac{29\frac{1}{2}}{30}$ 292	5400 to 5414	4000	5920	4800	4800	5920	4000						
MT 73 $\frac{29}{28}$ 230	7861 to 7869	2700	3700	3000	3000	3700	2700	1540	1000	1460	2120	1355	
MK 63 $\frac{26}{28}$ 214	2500 to 2531	2730	3750	3030	3030	3750	2730	1555	1010	1475	2140	1370	
MK 63 $\frac{26}{28}$ 211	2166 to 2171	2730	3750	3030	3030	3750	2730	1555	1010	1475	2140	1370	
MK 57 $\frac{23\frac{1}{2}}{30}$ 207	2100 to 2165	2700	3700	3000	3000	3700	2700	1540	1000	1460	2120	1355	
C 57 $\frac{22}{30}$ 190	730 to 768												
		2000	3000	2400	2400	3200	2000	1305	825	1240	1800	1150	
C 57 $\frac{22}{30}$ 179	725 to 729												
P 77 $\frac{25}{28}$ 178	3226 to 3227												
		1785	2545	1960	1960	2675	1785	1165	710	1005	1605	1025	
P 77 $\frac{25}{28}$ 167	3218 to 3225												
T 63 $\frac{22}{28}$ 162	1755 to 1760	1690	2405	1850	1850	2530	1690	1100	670	1045	1520	970	
T 69 $\frac{22}{28}$ 161	1742 to 1754	1540	2205	1690	1690	2315	1540	1005	615	955	1385	890	
P 77 $\frac{22}{28}$ 149	3200 to 3217	1380	1970	1520	1520	2075	1380	900	550	855	1245	795	
T 64 $\frac{22}{26}$ 145	1730 to 1731	1540	2205	1690	1690	2315	1540	1005	615	955	1385	890	
T 57 $\frac{20}{26}$ 126	1737 to 1741	1360	1940	1500	1500	2040	1360	890	540	845	1225	780	
T 57 $\frac{20}{26}$ 119	1733 to 1735	1290	1840	1420	1420	1935	1290	840	515	800	1160	740	

EXPLANATION

"P"—Pacific
"T"—Ten Wheel

"C"—Consolidation
"MK"—Mikado

"MS"—Mallet Simple
"MC"—Mallet Compound

"TTT"—Two-Ten-Two
"MT"—Mountain

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

C 57 $\frac{22}{30}$ 187

Pages 18, 19 and 20 are blank.