

UNION PACIFIC RAILROAD COMPANY

Eastern District

Nebraska Division

**Special Rules
No. 11**

**Effective Saturday,
March 1, 1952**

Superseding Special Rules No. 10

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

E. HICKS,
General Manager

G. A. CUNNINGHAM,
General Superintendent

J. E. MULICK,
Superintendent

Railroad Watches

2 (R). Operating Rules 2, 2 (A) and 2 (B) are cancelled. Employees listed below must, while on duty, have a reliable railroad grade watch* which must not vary more than 30 seconds from correct time.

(*A railroad grade watch is one equipped with a lever set.)

| | |
|-------------------------|-------------------------|
| Safety Representatives | Flagmen |
| Trainmasters | Firemen |
| Assistant Trainmasters | Hostlers |
| Traveling Conductors | Outside Hostler Helpers |
| Road Foremen of Engines | Yardmasters |
| Traveling Firemen | Assistant Yardmasters |
| †Station Agents | Engine Foremen |
| †Operators | Switchtenders |
| Conductors | Engine Herders |
| Engineers | Such other employes as |
| Brakemen | may be designated |

(†Except when assigned in offices where standard clock is located.)

2 (S). Officers and employes must not make solicitation in connection with the sale of watches.

2 (T). Employes must present their watches to officers and supervisors upon request.

Watch Comparison

3 (R). Conductors and engineers of C. B. & Q. trains who have made and registered watch comparison at C. B. & Q. initial station will not be required to make or register watch comparison at Sterling or Union.

Signals

7 (R). Conductors and engineers of trains or engines which operate in territory where they are governed by the rules of another railroad must know that they have equipment necessary to enable them to fully comply with such rules.

8 (R). Yellow flags by day and yellow lights by night will be used by switchtenders. Proceed signals as well as stop signals given by switchtenders must be answered.

8 (S). Electric lanterns may be used by switchtenders and interlocking signalmen for displaying yellow lights.

Reduce and Resume Speed Signs

10 (R). Operating Rule 10 (H) is changed to read:

"Reduce Speed sign showing by figures the maximum speed permitted, placed on engineer's side of track, indicates that the track 2500 feet distant is in condition for a speed of not more than indicated by the sign. Example: 60-40-25 will indicate maximum speed of 60 MPH for streamline trains, 40 MPH for DE-Psgr. and Psgr. trains, 25 MPH for freight trains.

Resume Speed sign placed on engineer's side of track, indicates that the Reduce Speed location has been passed.

The entire train must pass over the designated location at the specified speed.

Such speed restrictions will also be shown in time-table or superintendent's bulletin."

10 (S). Operating Rule 10 (G) is changed as follows:

Yellow signals will be placed one and one-fourth miles instead of one mile from the beginning of the slow track.

Radio

16 (R). Any interruptions or failures of radio equipment used in yard operation must be reported by engine foremen to yardmasters, who will promptly furnish manager of telegraph office complete information concerning such interruptions or failures.

Any interruptions or failures of radio equipment used in train operation must be reported by conductor to chief dispatcher and manager of telegraph office at point where chief dispatcher is located, from first open telegraph office, such report to contain complete information concerning such interruptions or failures.

Headlights

17 (R). The following will govern use of oscillating red headlight: When train becomes disabled or makes sudden stop due to unusual occurrence, or when an adjacent track is obstructed or there is pos-

—Continued Opposite Side.

17 (R). Continued.

sibility of it being obstructed, if red headlight is not set in motion automatically, engineer must immediately set it in motion by manual operation.

A train on adjacent track must stop before passing headlight and be governed by Operating Rule 102.

When head end protection is required, engineer will immediately display red headlight. When occupying main track in meeting an opposing train, red headlight will be displayed until opposing train dims its headlight in accordance with Operating Rule 17 (B), after which, if switch is lined to permit opposing train to enter siding, red headlight will be extinguished.

Engineer finding red headlight displayed by opposing train, must stop before passing headlight, ascertain the cause and be governed by conditions.

Display of red headlight does not relieve enginemen nor trainmen from protecting front of train in accordance with Operating Rule 99, when required.

If red headlight has been set in motion automatically and necessity no longer exists, engineer must extinguish it.

When standing at terminals and red headlight is not required, it must be extinguished.

17 (S). Operating Rule 17 (C) is cancelled.

First sentence of Operating Rule 17 is changed to read: "Headlight must be displayed, burning bright, to the front of every train by day and night."

17 (T). Operating Rule 17 (D) is changed to read:

"At night, when an engine is backing up without cars or backing up pulling cars, a white light must be displayed on rear of engine.

When a road engine without cars is standing or moving about yards at night under conditions not requiring the display of markers, a light must be displayed on rear of engine. A red light must be used when engine is so equipped."

17 (U). At night, oscillating white headlight must be set in motion passing through cities and towns and approaching and passing over public crossings at grade.

Markers and Rear End Lights

19 (R). Oscillating red rear end light on passenger trains will be used as a night signal in accordance with Operating Rule 9 and must be displayed from sunset to sunrise and when day signals cannot be seen due to weather or other conditions. Also at any time train is moving under circumstances in which it may be overtaken by another train.

Red rear end light must be extinguished when train is clear of main track and rear end protection is not required.

The displaying and extinguishing of red rear end light must be done by trainman.

Display of red rear end light does not relieve trainmen nor enginemen from complying with Operating Rule 99 nor any other rule.

19 (S). Operating Rule 19 (C) is cancelled.

When the rear car in a train is not equipped to display prescribed markers, a red flag by day and a red light by night must be displayed on rear end of rear car, except that when a red light is not available, a marker lamp displaying red light to rear must be wired or otherwise securely fastened to rear end of rear car.

19 (T). At North Platte, when a train on belt track is clear of the main track, at night the markers must display green lights to the front and side, a green light to the rear on the side next to the main track, and a red light to the rear on the opposite side.

Classification Signals

21 (R). When a train is equipped with indicators, white flags will not be displayed by extra trains.

Switch Lights

27 (R). At stations where reflectorized type switch lamps are in use, in case of headlight failure, or engine backing up, trains and engines must approach facing point switches at restricted speed.

27 (S). Switch lights will not be used on:

Sears Branch;
Lyman Branch;
Gering Branch;
Ord Branch, between Cotesfield and Ord;
Loup City Branch, between Boelus and Loup City;
Kearney Branch, between Oconto and Stapleton;
North Platte Branch;
North Platte Cut-off.

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

Stopping Trains at Stations

28 (R). A green and white signal will be used to stop designated trains at conditional stops shown in time-table.

28 (S). When necessary to stop a train at a station for any cause other than for flag or conditional stop, a lighted red fusee must be used.

Train Register

83 (R). At Union, eastward Union Pacific trains which have not ascertained that C. B. & Q. trains due have arrived or left, must approach C. B. & Q. junction switch at restricted speed, but if operator is located west of C. B. & Q. junction switch and gives proceed signal and delivers train order check on C. B. & Q. trains, and if block signals indicate Proceed, eastward trains may proceed.

Clearing Trains—Rule 251 Operation

86 (R). Where Operating Rule 251 is in effect, Operating Rule 86 is modified as follows:

When instructed by train dispatcher to clear a train or trains, the following will govern:

The time of Nos. 101, 102, 103, 104, 105, 106, 111 and 112 must be cleared not less than five minutes by first-class trains and not less than fifteen minutes by second-class and extra trains; the time of other first-class trains must be cleared not less than ten minutes by second-class and extra trains.

Movements in Yards

93 (R). At Cheyenne, between west wye switch and Tower A, all trains and engines must approach cross-over switches in main tracks carefully, expecting to find tracks in vicinity of passenger station occupied by trains or cars, and switches lined for other than main track movement.

Eastward trains and engines approaching west end Cheyenne passenger station must be prepared to stop clear of cross-over unless proceed signal is received from yardman in charge of switches.

Westward trains and engines approaching east end Cheyenne passenger station must be prepared to stop clear of cross-overs at east end of passenger yard tracks unless proceed signal is received from yardman in charge of switches.

Trains leaving Cheyenne passenger station must not foul lead or cross-overs until proceed signal is received from yardman in charge of switches.

Proceed signal must be answered.

At Cheyenne, trains and engines using First Subdivision main track between Tower A and passenger station must move expecting to find the track occupied, and a speed of 20 MPH must not be exceeded under any circumstances.

All eastward trains must approach west end of Cheyenne yard prepared to stop unless it can be seen that the lead is clear and switch is properly lined for their head-in track. When view is obscured or lead occupied, trainman must precede movement and know that switches are properly lined and lead clear before giving proceed signal.

93 (S). All members of crews of trains and engines using C. B. & Q. tracks at Lincoln must be examined and qualified on C. B. & Q. rules.

While using such tracks, employes will be under supervision of C. B. & Q. supervisors and will be governed by the following C. B. & Q. rules in addition to U. P. rules which do not conflict:

C. B. & Q. Definition: Restricted Speed—Proceed prepared to stop short of train, obstruction, or switch not properly lined and to look out for broken rail.

C. B. & Q. Definition: Reduced Speed—Proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

—Continued Opposite Side.

93 (S). Continued.

C. B. & Q. Rule 93: Within yard limits, second class, extra trains and engines may use the main track, clearing first class trains when due to leave the next station where time is shown, but not less than five minutes.

Within yard limits, second class, extra trains and engines may use the main track without protection as prescribed by Rule 99, except in case of failure to clear first class trains, as required, when carrying passengers or caretakers or when handling occupied company service cars.

Second class, extra trains and engines must move within yard limits at Reduced Speed unless the main track is known to be clear.

CLEAR INDICATION OF BLOCK SIGNALS DOES NOT MODIFY THE REQUIREMENTS OF THIS RULE.

NOTE TO RULE 93.—The "Next Station" means the next station in the direction of any approaching first class train.

C. B. & Q. Rule 99: When a train is moving under circumstances in which it may be overtaken by another train, the flagman must drop lighted fusees at proper intervals and take such other action as may be necessary to insure full protection.

When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection, placing two torpedoes and, when necessary, in addition, displaying lighted fusees. When recalled and safety of train will permit, he may return, leaving the torpedoes and when conditions require, a lighted fusee.

When a train stops under circumstances in which it may be overtaken by another train, the engineman will immediately signal the flagman to protect the rear. When ready to proceed he will recall the flagman.

The front of the train must be protected in the same way when necessary by the forward trainman or in his absence by the fireman.

Conductors and enginemen are responsible for the protection of their trains.

C. B. & Q. Rule 663: Trains or engines must not pass an interlocking signal indicating stop until a member of the train or engine crew is fully informed of the situation. Movement may then be made on hand signal or permission of the operator, at Restricted Speed.

Hand signals must be given with a yellow flag by day and a yellow light by night from center of track on which the movement is to be made. When more than one train or engine is in sight, hand signals must be given from a point not to exceed 100 feet in advance of the engine.

When interlocking signals operated by remote control are in Stop position a member of the train or engine crew will promptly communicate with operator and when so instructed may proceed by Stop signal, examining switches and derrails in route designated, assuring themselves they are in proper position.

Where interlocking signal governs the block beyond interlocking limits, Rule 509 must be observed.

C. B. & Q. Rule 908: Engines and cars must be moved on yard tracks only as such tracks are seen or known to be clear.

C. B. & Q. Time-table special instruction: Trains and engines must move at Reduced Speed over crossover switches, Nos. 1, 2, 3 and 4 tracks, near subway, Lincoln Passenger Yard, and know they are properly lined.

Clearances

96 (R). A clearance must be received as follows:

| | |
|---------------------|--|
| Omaha Union Station | —by all westward Union Pacific passenger trains; |
| Gilmore Junction | —by all westward Union Pacific trains; |
| Grand Island | —by all trains; |
| Sidney | —by all trains; |
| Sterling | —by all trains. |

96 (S). Trains are not required to receive a clearance, per Operating Rule 96, as follows:

- Summit—All westward passenger trains;
- Gilmore—All westward trains;
- Oconee —All trains.

96 (T).

| A Clearance Received At | By | Will Confer the Same Authority on | As When Received at |
|-------------------------|---|-----------------------------------|---------------------|
| Omaha | Westward first-class trains. | First Subdivision. | Summit. |
| Gilmore Junction | Westward trains. | Old Main Line. | Gilmore. |
| Gilmore Junction | Westward trains. | First Subdivision. | Lane. |
| Columbus | Westward trains going to Albion Branch. | Albion Branch. | Oconee. |
| Columbus | Westward trains going to Cedar Rapids Branch. | Cedar Rapids Branch. | Genoa. |
| Spalding | Eastward trains. | Albion or Norfolk Branches. | Genoa or Oconee. |
| Albion | Eastward trains. | Norfolk Branch. | Oconee. |
| Grand Island | Any train. | First Subdivision. | Initial Station. |
| Sidney | Any train. | Second Subdivision. | Initial Station. |
| Sterling | The only section of a regular train. | Third Subdivision. | Initial Station. |

Exception: A clearance must be received at Genoa by all Cedar Rapids Branch trains when there is an operator on duty.

Railroad Crossings and Junctions

98 (R). Trains and engines must be governed by the following at the railroad crossings and junctions indicated:

| Location | Railroad Crossed, or Junction With | Trains Which Have Precedence | How Governed |
|-----------------------------------|---|------------------------------|---|
| Summit. (M.P. 5.1) | C. G. W., C. & N. W. cross-overs between Tracks 1, 2, 3, and 4. | | Interlocking and signal from switchtender when making movement to south running track and Track 4. |
| Lane. (M.P.17.1) | Old Main Line crosses eastward track. | | Block signals. Operating Rule 518 and Special Rule 533 (R). |
| Fremont. (M.P. 38.2) | F. S. Y. & L. Co. | U. P. | Cabin Interlocking. Special Rule 98 (S). |
| Fremont, on Canning Factory Spur. | C. B. & Q. crosses Canning Factory Spur. | U. P. | Gate. |
| Central City. (M.P.124.3) | C. B. & Q. | | Semi-Automatic Interlocking. Operating Rule 612. |
| Central City. (M.P. 124.6) | Stromsburg Branch crosses eastward track from eastward siding. | | Westward Stromsburg Branch trains will contact Train Dispatcher and cross over under block signal protection. If an eastward train is seen approaching, switch must not be opened or cross-over occupied until approaching train has stopped. |
| Gibbon (M.P. 175.92) | Hastings Branch crosses eastward track from eastward siding. | | Interlocking. Special Rule 240 (S). |
| O'Fallons. (M.P. 300.7) | North Platte Branch. | | Under flag protection. |
| Egbert. (M.P. 477.7) | North Platte Cut-Off. | | Under flag protection. |

—Continued Opposite Side.

98 (R). Continued.

| Location | Railroad Crossed, or Junction With | Trains Which Have Precedence | How Governed |
|-------------------------|---|------------------------------|---|
| Cheyenne. (M.P. 508.4) | Westward freight trains cross eastward track. | | Where there is not an eastward first-class train due, westward freight trains will cross over at east switch Cheyenne yard under block signal protection. If an eastward first-class train is due, they must not cross over without permission from the train dispatcher, and, if an eastward train is seen approaching on eastward track, switch must not be opened nor cross-over occupied until approaching train has stopped. |
| Union. (M.P. 81.0) | C. B. & Q. | | Block signals. Special Rule 83 (R). |
| Wahoo. (M.P.19.6) | C. & N. W. | U. P. | Stop signs. |
| Wahoo. (M.P.19.6) | C. B. & Q. | U. P. | Stop signs. |
| Beatrice. (M.P. 97.2) | C. R. I. & P. | U. P. | Stop signs. |
| Beatrice. (M.P. 97.6) | C. B. & Q. | U. P. | Stop signs. |
| Humphrey. (M.P. 25.1) | C. & N. W. | U. P. | Stop signs. |
| Norfolk. (M.P. 48.7) | C. & N. W. | C. & N. W. | Semi-Automatic Interlocking. Special Rule 613 (R). |
| Norfolk. (M.P. 50.2) | C. & N. W. | C. & N. W. | Stop signs. |
| Brainard. (M.P. 15.0) | C. & N. W. | U. P. | Stop signs. |
| David City. (M.P. 23.5) | C. B. & Q. | U. P. | Stop signs. |
| Ord. (M.P. 60.6) | C. B. & Q. | U. P. | Stop signs. |

98 (S). At F. S. Y. & L. Co. crossing, Fremont, a train stopped by Stop indication of signal governing movement over crossing, may proceed when signal changes to Proceed or Approach indication.

If signal continues to display Stop indication, flagman must be sent to crossing to ascertain that derails on C. & N. W. track are in derailing position, and if no conflicting movement is evident and if other conditions permit, flagman will signal his train to proceed over crossing.

Flag Protection

99 (R). Flagman, in placing torpedoes as required by Operating Rule 99, must place second set of torpedoes one and one-half miles instead of one and one-fourth miles from rear of train.

Last paragraph of Operating Rule 99 is changed to read:

"Night signals—A white light, not less than ten torpedoes and six red fuseses."

At night and during foggy and stormy weather, a lighted red fusee will be used for hand signals required by Operating Rule 99.

99 (S). Operating, M. of W. and Signal Rule 99 (F) is changed as follows:

Employe alone, who finds track or bridge unsafe for trains at normal speed, in placing torpedoes as required by Rule 99 (F), must place second set of torpedoes one and one-half miles instead of one and one-fourth miles from red flag or red light.

99 (T). Trains may be relieved from protecting against following extra trains by the use of Example (7) of train order Form E only on North Platte Cut-Off and all branch lines.

Dead Engines

101 (R). In handling dead engine, it must be placed 12 cars behind the road engine, and if a second dead engine is in the train, the second dead engine should be 25 cars behind the road engine. In handling three dead engines in train, 15 cars must be placed between each engine.

Cars or Train Left Behind

102 (R). In complying with Operating Rule 102 (B), if no light is available to be placed on front end of cars left behind, a trainman must remain at front end of such cars to signal engineer when returning.

Riding on Ends of Engines

103 (R). When Diesel-electric locomotive is used, a yardman or trainman may ride on side steps or platform in direction locomotive is moving instead of on leading footboard.

103 (S). Where reference is made in rules to rear of tender of engines, this requirement will also apply to rear end of Diesel-electric locomotives.

103 (T). A yardman or trainman need not ride on leading footboard of engine, as follows:

At Grand Island, continuous main track movements between east yard and west stock yard, and between east yard and sugar plant.

Public Crossings

103 (U). At public crossing protected by crossing watchman and crossing gates, yard crews must know gates are down and crossing protected before making movement over the crossing with engine or car; otherwise crossing must be protected by member of crew.

103 (V). The following instructions apply at public crossings protected by automatic crossing signals or automatic crossing gates where a crossing watchman is not on duty:

When the rear of a train, engine or yard movement has passed over such crossing and a back-up movement onto or over the crossing is then to be made, or, when a switching or engine movement is to be made against the current of traffic over such crossing, the crossing must be protected by a member of the crew as provided in Operating Rule 103 (B) or 103 (C).

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

| Stop At— | After stopping, proceed only as follows: |
|----------------------------|---|
| South Sixth St., Beatrice. | Following flagman. |
| Court St., Beatrice. | Following flagman. |
| Norfolk Ave., Norfolk. | Following flagman, except when it is known that the crossing is protected by flagman. |

103 (X). At Valley, cars must not be left within 60 feet of the first street crossing west of the depot.

At Norfolk, cars must not be left closer than 15 feet from the outside edge of the sidewalk.

At Grand Island, all trains must be governed by signals received from traffic director at Pine Street.

At Grand Island, all movements on industrial track must stop before crossing U. S. Highway 30 and know that automatic crossing signals are in operation before proceeding. Stop must be made on circuit, marked by yellow insulated joints, extending 50 feet on each side of crossing.

At Central City, while standing, freight trains must keep all crossings clear between the hours of 6:00 a.m. and 11:00 p.m.

At Sidney, when an eastward freight train is parted to clear public crossing west of depot, it must not be recoupled to make air test while crossing east of depot is blocked by a passenger train in either direction. When necessary, an eastward freight train arriving Sidney must cut crossing or double over to avoid blocking crossing west of depot, and an eastward freight train must not block this crossing by starting to depart while a passenger train is blocking crossing east of depot. After either east or west crossing has been blocked by trains arriving or departing, switching movements must not be made over these crossings immediately after crossing has been cleared by trains, but must permit highway traffic which has been stalled to move over crossing.

At Pine Bluffs, while standing, freight trains must keep crossing just east of depot clear.

At Hillsdale, while standing, freight trains must keep crossing at depot clear-between the hours of 8:30 a.m. and 10:00 a.m.

103 (Y). At Kearney, when Signal 1890 displays Stop indication, eastward trains on main track must stop clear of Fifth Avenue crossing. When Signal 1890 displays Stop indication and track occupancy indicator indicates siding is occupied, eastward trains to use siding must remain clear of Fifth Avenue crossing.

103 (Z). At Ogallala, when engine is to be cut off an eastward train on main track, train must be left west of aluminum painted pole located 150 feet west of public crossing.

Trains or cars must not be left standing on eastward siding between public crossing and yellow painted joint bars located 150 feet west of crossing.

Trains leaving westward siding or starting from coal chute should approach public crossing at very slow speed to allow time for crossing gates to lower.

Switches

104 (R). Switches equipped with No. 14 turnouts are indicated by a figure "14" on switch target.

104 (S). Switches will be set normally:

- Gilmore —at end of double track, for eastward track;
- Oconee —for Norfolk Branch;
- Genoa —for Cedar Rapids Branch;
- Yoder —for main track to South Torrington.

Track Occupancy Indicators

105 (R). At Kearney, when an illuminated letter "O" is displayed on track occupancy indicator, it indicates siding is not occupied. When no light is displayed, it indicates siding is occupied. Indications displayed by these indicators do not modify requirements of Operating Rule 105.

Trains at Stations

107 (R). At Fremont, Columbus and Kearney, eastward and westward freight trains must not pass in front of passenger station at the same time. When trains approach those points at the same time from opposite directions, the westward train will have precedence.

At Valley, passengers will be discharged from westward trains on south side of track.

At Fremont, Columbus, Kearney and Julesburg, passengers will be discharged from eastward trains on north side of track.

Movements Against Current of Traffic

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

- At Grand Island —Between C.B. & Q. Crossing and Clark St.
- At North Platte —Between extreme east and west switches;
- At Sidney —Between extreme east and west switches;
- At Cheyenne —Between M.P. 509.2 and Tower A.

At Julesburg, when interlocking dwarf signals display indication permitting movement against current of traffic, movement may be made without flag protection to "End of Block" signs.

Speed Restrictions

152 (R). That part of last paragraph of Operating Rule 93 reading, "(See Special Rule 152-R)" is changed to read, "See speed restrictions in time-table."

Cross-over Movements—Cheyenne

D-152 (R). At Cheyenne, movements through cross-over just east of east leg of the wye, may be made under block signal protection. If a train or engine is seen approaching, switch must not be opened nor cross-over occupied until approaching train or engine has stopped.

240 (R). At Cheyenne, when a train or engine is stopped by dwarf signal located between eastward and westward main tracks 525 feet west of M.P. 509 or dwarf signals at the fouling point on C. B. & Q. transfer track, old ice house track and old shop track or Signals 5083 or 5089, a flagman must be sent ahead to next signal or to "End of Block" sign. Lower unit on Signal 5083 will govern cross-over movements from westward main track to freight yard.

240 (S). Upper unit of Signal H-273 on Hastings Branch at Gibbon governs westward movements on eastward siding to interlocking dwarf signal. When upper unit displays Stop indication, trains from Hastings Branch must not use eastward siding without permission from the operator.

Lower unit governs westward movements from Hastings Branch to westward main track. When yellow indication is displayed by lower unit after switches have been lined for movement, movement may be made at once.

Spring Switches

517 (R). Spring switch west of coal chute, Hastings, is equipped with facing point lock. See Operating Rule 517.

Remote Control Switches

526 (R). Remote control switches are located:
Council Bluffs — East end of Missouri River Bridge;
Council Bluffs — West end of ice dock tracks 5 and 6;
North Platte — At east end.

Electric Locked Switches

533 (R). At Lane, high electric lock installed at junction switch, and low electric lock at west switch of cross-over, automatically unlock when there is no train or engine in the circuit approaching the switch. Track occupancy indicators are located at these switches, and in addition to complying with Operating Rule 515 when Occupied indication is displayed, padlock must not be removed from hasp on low electric lock at west switch of cross-over.

Indicator lamp inside high lock case and on post near low electric lock will display a steady light when electric lock is released. When flashing light is displayed, it indicates that timing device is functioning to release electric lock.

When indicator light does not display a steady light to indicate lock is released and there is no conflicting train movement evident, push button inside case of high lock must be depressed, or padlock removed from hasp on low lock, to start time-release device which will release electric lock in approximately four minutes.

When movement is to be made from eastward main track to Old Main Line, front of train must be between "Release Section" sign and junction switch so that electric lock will release without necessity of waiting four minutes for the timing device to release it.

When Signal A-249 on Old Main Line displays Approach indication, westward trains and engines must stop to clear Center Street and member of crew must communicate with train dispatcher and be governed by his instructions.

Interlocking

605 (R). To indicate the route to be used, the following whistle signals will be used:

At Julesburg:

For movement from westward main track to Third Subdivision or from Third Subdivision to eastward main track..... — o
For movement from westward main track to eastward main track or from eastward main track to westward main track or from Third Subdivision to westward main track..... o — o

At Tower A, Cheyenne:

For movement from any track to—
Stock yard..... — o —
First Subdivision main track..... — o
New yard south lead..... — o — o
Eastward main track..... o — o
Westward main track..... o — o —

At Sterling:

For main track..... —
For diverging route..... — o
For stockyards track..... o — o —

605 (S). At C. B. & Q. Hall Tower, Lincoln, a siren is in service, and signals by the siren indicate as follows:

| Sound | Indication |
|---------|--|
| — | All trains within interlocking limits stop immediately. Resume normal movement after receiving the proper signal or permission from the signalman. |
| o o | Siren test. |
| o o o o | Call for signal maintainer. |

613 (R). When semi-automatic interlocking at Norfolk is out of order, trains must not use the crossing until protected by flagman, in both directions on C. & N. W. Union Pacific chief dispatcher must be immediately notified by wire.

Exchanging Signals and Inspection of Trains

713 (R). A trainman must be stationed on rear of train in position to give or receive signals, when passing depots and towers. On freight trains, this trainman must be on rear platform of caboose.

713 (S). Referring to Operating Rules 713, 713 (A) and 713 (B). The following additional requirements must be observed in the operation of all passenger trains:

Trainmen and enginemen, in addition to exchanging signals with operators or other employees at train order stations, must look their train over on curves, at stations where train order signals are located, when passing through yard limits and, in addition, they must inspect train on curves as follows:

| | |
|--|-----------------|
| M.P. 22.2 and M.P. 22.6 (near Elkhorn) | —reverse curves |
| M.P. 103.2 (Near Silver Creek) | —single curve |
| M.P. 216.2 | —single curve |
| M.P. 258.1 and M.P. 258.5 | —reverse curves |
| M.P. 323.5 and M.P. 324.4 | —reverse curves |
| M.P. 355 | —single curve |
| M.P. 422.6 and M.P. 423.5 | —reverse curve |
| M.P. 486.2 and M.P. 487.6 | —reverse curve |

On curves indicated above, at train order stations and after passing through yard limits, a trainman at rear of the train must exchange signals with a member of the engine crew in cab of locomotive, such signals to indicate whether or not train is running properly.

Any exceptions noted by either trainmen or enginemen must be promptly investigated and condition known to be safe before permitting train to proceed.

Passengers on Freight Trains

719 (R). Passengers with tickets may be carried on freight trains between stations at which the trains stop, as follows:
Trains Nos. 97, 98, 237, 238, 239, 240, 241, 242, 243, 244, 353 and 354.

Outfit Cars

720 (R). That part of Operating Rule 720 (C) and M. of W. and Signal Rule 1521 requiring authority from superintendent to permit women and children to remain in outfit cars during movement of such cars is cancelled.

Spreaders and Snow Plows

732 (R). Spreaders and snowplows will not clear concrete platforms at Cheyenne passenger station.

732 (S). Wedge snow plows 01 to 08 inclusive, and 020 to 023 inclusive, must not be operated on tracks shown below:

Omaha Union Station—tracks 8 to 13 inclusive, adjacent to old umbrella sheds;
Lincoln Union Station—first track west of station adjacent to passenger station;
Cheyenne—tracks adjacent to ice house platform and salt shed.

Carbon Monoxide Fumes

733 (R). There is hazard of carbon monoxide fumes from exhaust of Diesel or gasoline engines and precautions must be taken to avoid possibility of accident therefrom.

Exhaust from such engines must not be located in close proximity of fresh air intake of passenger cars and care must be exercised at all times to see that there is sufficient ventilation where such engines are operated.

Trains Stopped in Tunnels

733 (S). Dangerous gases present in exhausts from various types of locomotives, steam generators, or engines of the Waukesha type, may cause incapacitation or fatalities if in sufficient concentration as might result when a train is stopped in a tunnel.

In the event a passenger train, regardless of the type of power being used, is stopped in a tunnel, cars within the tunnel must have air circulating systems, including air conditioning systems, ice machines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Certain gases are not readily detected by odors and this action must be taken immediately and time not wasted in determining when train may be started. Take safe course and act at once.

When a Diesel-electric locomotive is stopped in a tunnel under conditions preventing prompt movement, Diesel engines must be promptly shut down.

Shutting Off Diesel Propulsion Engines

733 (T). When Diesel propulsion engines are shut off, air brakes must be fully applied and, in addition, front and rear of a traction wheel must be blocked and sufficient hand brakes must be applied throughout the train to prevent movement should air brakes leak off.

During freezing weather, when Diesel engines are shut down, cooling water must be drained to winter level and if necessary to prevent damage to engine must be drained completely.

Local conditions must be carefully considered, as there may be situations where the exhaust gases are being carried away from the train by air currents, or where proximity to tunnel opening would make it unnecessary to shut down these engines. Safety of passengers and members of the crew must be the first consideration.

Train dispatcher should be notified immediately so that proper arrangements can be made for protection of persons and equipment.

Power Transmission Wires

734 (R). Power transmission wires carrying 2300 volts are located on top cross-arm of signal pole line.

Diesel-Electric Locomotives

735 (R). Adjustments must not be attempted nor made in high voltage cabinets of Diesel-electric locomotives until engine has first been isolated and stopped and units have come to a stop.

736 (R). When Diesel-electric switch locomotive is to be idle in excess of 30 minutes, main engine must be stopped.

When Diesel-electric road locomotive is to be idle for one hour at initial or intermediate stations, main engines must be stopped.

Exception: In such cases, engines must not be stopped when outside temperature is below 35 degrees.

When Diesel engines are stopped at terminals when a heavy rain is falling, enginemen will call on mechanical forces for covers to be placed over exhaust stacks.

When Diesel engines are stopped, hand brakes must be applied.

Cars Partly Loaded or Unloaded

802 (R). All persons are prohibited from riding in cars while being switched, which are in the process of loading or unloading. Part loads will not be switched unless properly broken down or properly braced to prevent contents falling and being damaged. Before switching with or moving cars which are in the process of loading or unloading, persons working in the car must be notified and trainmen and yardmen should see that cars are not switched with until cars are vacated.

Handling of Explosives and Inflammables

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

Placards on Cars

BE 589 (b). A car requiring car certificates and "Explosives", or "Dangerous", "Dangerous-Class D Poison", or "Poison Gas" placards under the provisions of this part shall not be transported unless such freight car is at all times placarded and certificated as required by this part. Placards or car certificates lost in transit shall be replaced at next inspection point and those not required must be removed.

BE 589 (b). (1) At points where trains are inspected, cars placarded "Explosives" and adjacent cars shall be inspected; such cars shall continue in movement only when inspection shows them to be in condition for safe transportation.

Continued Opposite Side.

802 (S). Continued.

Switching Cars Containing Explosives or Poison Gas

BE 589 (c). A car placarded "Explosives" or placarded "Poison Gas" shall not be cut off while in motion. No car moving under its own momentum shall be allowed to strike any car placarded "Explosives", or placarded "Poison Gas." No freight car placarded "Explosives" or placarded "Poison Gas" shall be coupled into with more force than is necessary to complete the coupling.

BE 589 (c). (1) When transporting a car placarded "Explosives" in terminals, yards, side tracks, or sidings, such cars shall be separated from the engine by at least one non-placarded car.

BE 589 (c). (2) Closed cars placarded "Explosives" shall have doors closed before they are moved.

Switching of Cars Containing Dangerous Articles

BE 589 (d). In switching operations where use of hand brakes is necessary, a placarded loaded tank car, or a draft which includes a placarded loaded tank car shall not be cut off until the preceding car or cars clear the ladder track and the draft containing the placarded loaded tank car, or a placarded loaded tank car shall in turn clear the ladder before another car is allowed to follow.

BE 589 (d). (1) In switching operations where hand brakes are used, it shall be determined by trial that a car placarded "Dangerous" or that a car occupied by a rider in a draft containing a car placarded "Dangerous" has its hand brakes in proper working condition before it is cut off.

Placement of Freight Cars Containing Explosives, in Yards, on Sidings, or Sidetracks

BE 589 (e). Cars placarded "Explosives" shall be so placed that they will be safe from all probable danger of fire. Freight cars placarded "Explosives" shall not be placed under bridges or overhead highway crossings nor in or alongside of passenger sheds or stations except for loading or unloading purposes.

Notice to Crews of Cars Containing Explosives in Freight Trains or Mixed Trains

BE 589 (f). At all terminals or other places where trains are made up by crews other than road crew accompanying the outbound movement of cars, the railroad shall execute a consecutively numbered notice showing the location in the freight train or mixed train of every car placarded "Explosives". A copy of such notice shall be delivered to the train and engine crew and a copy thereof showing delivery to the train and engine crew shall be kept on file by the railroad at each point where such notice is given. At points other than terminals where train or engine crews are changed, the notice shall be transferred from crew to crew.

Position in Freight Train or Mixed Train of Cars Containing Explosives

BE 589 (g). In a freight train or a mixed train either standing or during transportation thereof, a car placarded "Explosives" shall, when length of train permits, be placed not nearer than the sixteenth car from both the engine or occupied caboose, except:

(1) When the length of freight train or mixed train will not permit it to be so placed, it shall be placed near the middle of the train.

(2) When transported in a freight train made up in "blocks" or classifications, a car placarded "Explosives" shall be placed near the middle of the "block" or classification in which moving, but not nearer than the sixth car from both the engine or occupied caboose.

(3) When transported in a freight train or a mixed train performing pickup and/or setoff service, it shall be placed not nearer than the second car from both the engine or occupied caboose, except as provided in paragraph (1) of this section.

Separating Cars Placarded "Explosives" From Other Cars in Train

BE 589 (h). In a freight train or a mixed train either standing or during transportation thereof, a car placarded "Explosives" must not be handled next to:

1. Occupied passenger car, other than car occupied by gas handlers or military personnel accompanying shipments.
2. Occupied combination car, other than car occupied by gas handlers or military personnel accompanying shipments.
3. Any car placarded "Dangerous".
4. Engine.
5. Any car placarded "Poison Gas".
6. Wooden underframe car (except on narrow gauge railroads).
7. Loaded flat car.

Continued on page 8.

802 (S). Continued.

8. Open-top car when any of the lading extends or protrudes above or beyond the ends or sides thereof.
9. Car equipped with automatic refrigeration of the gas-burning type.
10. Car containing lighted heaters, stoves or lanterns.
11. Car loaded with live animals or fowl, occupied by an attendant.
12. Occupied caboose except as provided in paragraph (1) of this section.

Position in Train of Loaded Placarded Tank Car

BE 589 (i). In a freight train or a mixed train, except a train consisting entirely of placarded loaded tank cars and as provided in paragraph (j) of this section, a placarded loaded tank car shall when the length of the train permits, be not nearer than the sixth car from the engine, occupied caboose or passenger car.

BE 589 (i). (1) When the length of the freight train or mixed train will not permit it to be so placed, it shall be not nearer than the second car from the engine, occupied caboose or passenger car.

BE 589 (i). (2) When transported in a freight train engaged in "pickup" or "setoff" service, a placarded loaded tank car shall be not nearer than the second car from both engine or occupied caboose.

Separating Loaded Tank Cars Placarded "Dangerous" From Other Cars in Train

BE 589 (j). In a freight train or mixed train either standing or during transportation thereof, a placarded loaded tank car must not be handled next to:

1. Occupied passenger car, other than gas handlers accompanying shipment.
2. Occupied combination car, other than gas handlers accompanying shipment.
3. Any car placarded "Explosives."
4. Engine (except when train consists only of placarded loaded tank cars).
5. Any car placarded "Poison Gas."
6. Wooden under-frame car (except on narrow gauge railroads).
7. Loaded flat cars.
8. Open-top car when any of the lading extends or protrudes above or beyond the ends or sides thereof.
9. Car equipped with automatic refrigeration of the gas-burning type.
10. Car containing lighted heaters, stoves, or lanterns.
11. Car loaded with live animals or fowl, occupied by an attendant.
12. Occupied caboose (except when train consists only of placarded loaded cars).

Position in Freight Train or Mixed Train of Cars Placarded "Poison Gas" or Containing Poison Liquids Class A

BE 589 (k). In a freight train or mixed train either standing or during transportation thereof, a car placarded "Poison Gas" or containing poison liquids, Class A, shall not be next to other freight cars placarded "Explosives" or cars placarded "Dangerous".

Position in Freight Train or Mixed Train of Cars Placarded "Explosives" and "Poison Gas" or Containing Poison Liquids when Accompanied by Cars Carrying Gas Handling Crews

BE 589 (l). A car placarded "Poison Gas" or containing poison liquids Class A in drums, tanks or bombs, or a car placarded both "Explosives" and "Poison Gas" shall at all times be next to and ahead of the car occupied by gas handling crews, when accompanying such car.

BE 589 (l). (1) A car or cars placarded "Explosives" shall be next to and ahead of a car occupied by guards accompanying such car, except that when the car occupied by guards is equipped with a heater it shall be the fourth car behind the car or cars placarded "Explosives".

Cars Containing Explosives or Poison Gas and Tank Cars Placarded "Dangerous" in Passenger or Mixed Trains

BE 589 (m). Cars containing explosives, Class A, poison gases or liquids, Class A, and tank cars requiring "Dangerous" placards shall not be transported in a passenger train. Such cars may be transported in mixed trains but only at such times and between such points that freight train service is not in operation.

BE 589 (m). (1) Cars containing explosives, Class A, poison gases or liquids, Class A, and tank cars placarded "Dangerous" shall not be transported next to occupied cabooses or cars carrying passengers in mixed trains except as provided in paragraph (1) of this section.

—Continued Opposite Side.

802 (S). Continued.

BE 589 (m). (2) When a car containing explosives, Class B, or dangerous articles other than explosives requiring labels (not including Class A poison gases or liquids) is moved in a mixed train and such car is not occupied by an employe of the carrier, placards must be applied to the car as required by this part.

Position in Train of Cars Containing Class D Poison

BE 589 (n). In a freight train or mixed train either standing or during transportation thereof, a car placarded "Dangerous-Class-D Poison" must not be handled next to cars placarded "Explosives" or next to carload shipments of undeveloped film.

Empty Tank Cars

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.

Explosives and Inflammables in Mixed Trains

802 (T). The cars designated below must not be handled in mixed trains:

Cars containing highly inflammable commodities; Shipments of explosives, including merchandise cars placarded "Explosives".

Track Scales

802 (U). Locomotives must not be moved over live rails of track scales and when moved over dead rails of track scales, a speed of 5 MPH must not be exceeded.

Sanders or injectors must not be used over track scales and locomotives or cars must not stand on dead rail over scale deck or platform of track scales.

Cars to be weighed must be stopped on scales and uncoupled at both ends while being weighed, except on scales equipped with automatic weighing device.

Cars must not be violently stopped by impact, sudden application of brakes or by blocking wheels. After cars are weighed, they must not be moved over live rails if possible to avoid it. When making impact with cars on scales, speed must not exceed 2 MPH and 4 MPH must not be exceeded over scales in any case.

Cars on live rail must not be moved by other cars or engines moving on dead rail, or vice versa. Cars must not be moved over scale with one truck on live rail and other truck on dead rail.

Retarder Yard—North Platte

802 (V). Switching movements handled by Car Retarder System are controlled by signal indications and verbal instructions over radio or loud speakers.

Hump signal, located at crest of the hump, governs eastward movements on hump lead. Hump signal repeaters repeat the same indications displayed by the hump signal. The indications of these signals are as follows:

| Color | Indication |
|--------------|------------------------------|
| Red | —Stop |
| Yellow | —Proceed not exceeding 2 MPH |
| Green | —Proceed not exceeding 4 MPH |
| Flashing Red | —Back up. |

Trimmer signal, located at crest of the hump, controls westward movements from west end of classification yard. Trimmer signal repeater repeats the same indications displayed by the trimmer signal. The indications of these signals are as follows:

| Color | Indication |
|-------|---|
| Red | —Stop, and not proceed except on instructions from hump yardmaster. |
| Green | —Proceed. |

Hump and trimmer signals are controlled by yardmaster, engine foreman or other designated employe.

An air whistle located on the compressor building will be controlled from hump yardmaster's office and Tower A. The following whistle signals will be used:

- 1 long blast —Humping operations are about to start.
- 2 short blasts —Call for maintainer.
- 3 short blasts —Call for section foreman.

Cars with Roller Bearings

804 (R). Cars equipped with roller bearings will start with much less effort than those otherwise equipped. When such cars are set out, either in yards or on line, hand brakes must be set if there is any possibility of their moving.

Switching Cars With Air Brakes Cut In

804 (S). Air must be cut in and automatic brake used when switching passenger train cars and occupied outfit cars; however, independent or straight air brake may be used when making couplings. Engineman must exercise care to avoid rough handling.

804 (T). Air brakes must be cut in and operative on all cars being handled at the following points:

- Columbus —Between sand pit and train yard and between sand pit and C. B. & Q. Transfer;
- Grand Island —Between train yard and sugar factory;
- Grand Island —Between train yard and Webb Stockyard;
- North Platte —Between train yard and stockyard;
- Northport —Between depot and C. B. & Q. Transfer.

Pushing Streamline Trains

805 (R). Operating Rule 805 is cancelled.

Position of Cars in Trains

807 (R). Open top or flat cars loaded with pipe, rail, lumber, poles or other lading which has tendency to shift, must be handled in head end of train, but must not be entrained immediately behind Diesel-electric locomotive.

Exception: Open top cars containing shipments of creosoted lumber, piling, etc., handled by coal burning locomotive, must be entrained in rear portion of train.

807 (S). Open top or flat cars loaded with glass shipments packed with straw or excelsior, handled by coal burning locomotive, must be entrained next to caboose.

807 (T). Stock cars containing horses may be handled next to Diesel-electric locomotive.

807 (U). Last paragraph of Operating Rule 807 is cancelled.

807 (V). Cars must not be handled behind caboose between Lagrange and Albin.

Doubleheading

808 (R). Doubleheading of any engine with either a 5000 or 9000 class engine over Bridges 56.60 or 65.76, Beatrice Branch, is permitted only when the additional engine is lighter than a 5000 class engine.

800, 9000 and 3900 class engines must not be operated doublehead over Bridge 12.65, Old Main Line.

Running Locomotives Backward

808 (S). Operating Rule 808 (A) is changed to read:

"Steam locomotives and Diesel-electric locomotives other than Diesel road-switch and switch locomotives must not be run backward in road service where wye tracks or turntables are available, except in an emergency. When back-up movement is necessary, engineer must secure authority from train dispatcher."

Inspection of Trains

811 (R). On locomotive, tender and freight car wheels, flat spots two and one-half inches or longer, or if there are two or more adjoining spots each two inches or longer, and on passenger cars including streamline train equipment one inch or longer, are condemnable and when discovered in train, conductor or engineer must immediately report to chief dispatcher and be governed by his instructions.

811 (S). When a train with Diesel-electric locomotive is passing, trainmen, enginemen, yardmen and others should observe wheels under power units to see if wheels are turning. In event locked wheels are noticed, stop signal must be given to crew of passing train and proper precautions taken to prevent damage to equipment.

811 (T). In addition to making inspection of train as often as practicable as per Operating Rule 811, freight trains must stop and must be inspected at the following points:

- Columbus —Eastward and westward;
- Kearney —Eastward and westward;
- Ogallala —Eastward and westward;
- Pine Bluffs —Eastward and westward.

—Continued Opposite Side.

811 (T). Continued.

This also applies to freight, mixed and extra passenger trains designated by symbol "MI", "MTX", "Main" or "WMB".

In addition to the above designated inspection points and close running inspection between terminals, crews will make additional inspection whenever and wherever in the judgment of the crew it is necessary to preclude any chance of accident.

Regular passenger trains will continue to make inspections where now required and will stop and make additional inspection if necessary to preclude any chance of accident.

When visibility does not permit close observation of train, all passenger trains except streamline trains, and conventional trains consisting entirely of roller bearing equipment, must stop once between terminals for complete inspection and conductor will make additional inspections when in his opinion weather conditions warrant.

Exception: When visibility is such as to permit close observation of train and there are no indications of hot boxes or other defects, eastward green fruit and stock trains need not stop for the purpose of inspecting train between Cheyenne and Summit.

Hot Boxes

826 (R). When a hot box is detected on a train between stations in addition to Operating Rules 810 and 826 the following will govern:

As quickly as hot box is detected train must be stopped, hot box inspected and no attempt made to run to next station until it has been ascertained it is safe to do so.

When car is set out account hot box, packing must be removed, fire extinguished and dirt, gravel or snow placed on top of box at back end over top of dust guard opening, after which lid on journal box must be closed. Thorough inspection must be made of car after attending to hot box to insure no fire on car body, and in all such cases, two members of crew must make this inspection, one of whom must be conductor.

Closing Doors on Freight Cars

855 (R). Referring to Operating Rule 855:

Conductors will be held responsible for knowing that doors on cars in their train are properly closed. When necessary to close doors found open, hasps and locking mechanisms must be operated to keep secured. When doors of cars in train, or on cars to be picked up, cannot be closed by trainmen the car must be considered as bad order and set out. Wire report of such occurrence must be made to superintendent, chief dispatcher and car foreman.

Duties of Engine Men

866 (R). The Mechanical Department will be charged with responsibility, and enginemen relieved, of complying with the following Operating Rules and portions thereof:

- Rule 816;
- Rule 869, first paragraph;
- Rule 869 (A), first paragraph;
- Rule 884, first sentence;
- Rule 885, first sentence.

Engine crew will leave from roundhouse or designated point promptly when engine is available for service.

869 (R). Last sentence of first paragraph of Operating Rule 869 is changed to read: "Engineer must know that engine is supplied with 12 torpedoes, 6 fuses, a red flag and equipment for train signals."

869 (S). Water must not be taken at Julesburg or Hardin except in emergency.

870 (R). Last sentence of Operating Rule 870 is cancelled.

Movement of Diesel Locomotives

872 (R). When a Diesel-electric locomotive consisting of two "A" units operated rear end to rear end, with or without "B" unit or units, is to be moved by hostlers in yards or around enginehouses, locomotive must be operated from lead "A" unit according to direction in which movement is to be made.

Duties of Employes on Diesel Locomotives

874 (R). Second paragraph of Operating Rule 874 is cancelled. On Diesel-electric locomotives in road service, not more than five men may ride in control cab.

Continued on Page 10.

874 (R). Continued.

The following instructions will govern firemen and head brakemen in performing their duties on Diesel-electric locomotives in road service, and will supersede and cancel all previous instructions, either written or oral, not consistent therewith.

Firemen will patrol engine rooms and make inspection of engine, temperatures, steam heat facilities and other parts, and give such attention as may be required. Any unusual condition or irregularity detected must be reported to engineer, and fireman will be governed by engineer's instructions.

On multiple-unit Diesel-electric locomotives on high-speed, streamlined, or main line through passenger trains, a fireman shall be in control cab at all times when the train is in motion.

This applies to the following trains:

| Nos. | Between |
|---------|--------------------|
| 1-6 | Omaha and Cheyenne |
| 101-102 | Omaha and Cheyenne |
| 103-104 | Omaha and Cheyenne |
| 105-106 | Omaha and Cheyenne |
| 111-112 | Omaha and La Salle |

This rule shall be strictly observed and firemen who violate it shall be subject to discipline.

When a fireman is required by this rule to remain in control cab at all times while train is in motion, his patrol of engine rooms will be made at initial stations and at other stops when time will permit. At points where firemen change, incoming fireman will assist outgoing fireman in making patrol.

On other trains, fireman will patrol engine rooms at initial stations and at other stops. When time between stops is 30 minutes or more, and at such other times as may be directed by engineer, fireman will patrol engine room while train is in motion.

On freight trains, head brakeman must ride in control cab except while performing duties requiring him to be elsewhere, as specifically provided by rules. When necessary to ride elsewhere in freight locomotive, he will immediately return to control cab on signal from engineer. When fireman is patrolling engine rooms while train is in motion, head brakeman must remain in control cab during fireman's absence and must observe signals and other conditions prescribed by Operating Rule 810.

When necessary for trainmen to ride in cab of trailing unit, they must not occupy engineer's seat and must not tamper with or manipulate any of the switches or valves nor place feet on dashboard or windshield.

Unauthorized persons, including deadhead trainmen and enginemen must not occupy cab of trailing unit of Diesel-electric locomotive on any train.

Oil-Burning Engines

875 (R). Adequate spot fire to provide near maximum steam pressure must be maintained on oil-burning engines when not working steam to avoid fire box leakage.

Leaving Locomotives Unattended

875 (S). Operating Rule 875 is cancelled and the following will govern:

Locomotive must not be left without a man in charge, except at designated places and under authorized conditions. Locomotives must not be left standing so they will block or foul adjacent tracks.

When locomotive coupled to cars is left unattended, hand brakes must be set on not less than ten cars, or on all cars in case locomotive is coupled to only ten cars or less.

Engineer must see that air compressors are running, throttle closed, latched and safety pin inserted, cylinder cocks opened, independent or straight air brakes applied in full application position and brake cylinder pressure noted before leaving locomotive. Driver and tender brake cut-out cocks must be cut in, reverse lever latched in center position when on level track, and when on a grade, the reverse lever must be placed in the corner position in ascending grade direction.

When a Diesel-electric locomotive is left unattended, reverse handle must be placed in neutral position and handle removed, independent brake set in full application position, field generator switch pulled and hand brake set on each unit.

875 (T). Where engine crews with 3800 and 3900 class locomotives eat at intermediate stations, one member of crew must stay with engine at all times.

875 (U). Enginemen must not leave engine unattended after arriving at Omaha Union Station until relieved by either engine watchman, hostler, or outgoing engineman.

Fireman Handling Locomotive

876 (R). Operating Rule 876 is cancelled.

Enginemen must not permit any unauthorized person to handle the locomotive. The fireman, when competent, may handle the locomotive when in road freight and yard service under the supervision of the engineer, the engineer being responsible. The fireman must not be permitted to handle the locomotive when in road passenger service, except in emergency.

Diesel Motors Cut Out

883 (R). When Diesel units are operating with less than full complement of motors or when it is necessary to cut out one or more of the motors at any time enroute, train dispatcher must be notified immediately.

Speedometers

883 (S). On locomotive equipped with speedometer, engineer must verify accuracy of speedometer not less than twice during each trip, by using watch to make time check between mile posts.

First check will be made at first opportunity after departure from point where engineer takes charge of locomotive. Care should be exercised to make check while speed is constant between mile posts, and, when possible, speed should be 30 MPH or over.

When check indicates speedometer is not registering correctly, wire report must be made to train dispatcher promptly as possible, giving miles per hour that speedometer is slow or fast.

Inspecting Locomotives

883 (T). When standing at inspection points, and when stopped in yards and at points between terminals where time will permit, enginemen must get on ground and inspect both sides of their locomotive. This applies to both passenger and freight trains, and to any type of locomotive.

800 Class Locomotives

889 (R). 800 class locomotives must not be worked with less than 33% cut-off to avoid hot main pins.

Movements Around Fueling Stations, etc.

890 (R). Before moving an engine and during movement of an engine in the vicinity of fueling stations and servicing tracks, enginemen and hostlers must sound whistle to warn men working about such tracks.

Standpipe Spouts

890 (S). After taking water at Fremont, and at Columbus and Grand Island passenger stations, on westward trains the standpipe spout must be left turned to the east, and on eastward trains it must be left turned to the west.

Track Restrictions

896 (R). Engines heavier than indicated below must not go on the tracks named:

| Location | Track | Heaviest Engine Permitted |
|---------------|--|---|
| Gilmore..... | Beyond fouling point at each end of cleaning track..... | None permitted |
| Millard..... | Siding, from 500 feet west of east switch to 1500 feet east of west switch..... | Light MacArthur |
| Waterloo..... | Seed house track..... | Light MacArthur |
| Valley..... | Coy Seed Spur..... | Consolidation |
| | Cone sand pit spur, M.P.1, Beatrice Branch | Consolidation |
| | Lyman-Richey sand spur, M.P.2, Beatrice Branch..... | Consolidation |
| | Yard track No. 2 south of depot, between 275 feet west of east switch and cross-over opposite depot..... | Light MacArthur |
| | Spur north of roundhouse..... | Light MacArthur |
| | Electric light spur..... | Light MacArthur |
| | Stockyards track..... | 2-10-2, except must not be used by 800 class. |

Continued on page 11.

896 (R). Continued.

| Location | Track | Heaviest Engine Permitted |
|-------------------|--|---|
| Mercer..... | Industry track..... | Light MacArthur |
| Fremont..... | F. S. Y. & L. Co. side tracks..... | Consolidation |
| | Canning factory track and spur..... | Consolidation |
| | West end south industry track (Lottie track)..... | Consolidation |
| | Shellenberger Sand Co. track..... | Consolidation |
| | North industry track..... | Light MacArthur |
| | Thomas coal spur..... | Light MacArthur |
| | Fremont Mill Co. spur..... | Light MacArthur |
| | Gas plant spur..... | Light MacArthur |
| | F. S. Y. & L. Co. main track..... | Heavy MacArthur |
| | North C&NW transfer track..... | Heavy MacArthur |
| | Freight house track..... | 2-10-2, except must not be used by 800 class. |
| Schuyler..... | Freight house spur..... | Light MacArthur |
| | Higgins & Coufal spur..... | Light MacArthur |
| | Water and light plant spur..... | Heavy MacArthur |
| Columbus..... | Electric light spur (Swift & Co.)..... | Consolidation |
| | Hord elevator track..... | Light MacArthur |
| | Freight house track..... | Light MacArthur |
| | Old rip tracks..... | Light MacArthur |
| | Cinder pit spur..... | Light MacArthur |
| | Cinder pit track at roundhouse..... | Consolidation |
| | Second track north of coal chute..... | Light MacArthur |
| Duncan..... | Industry track east of stockyards..... | Light MacArthur |
| Havens..... | Industry track west of stockyards loading chute..... | Light MacArthur |
| Central City..... | Two CB&Q joint tracks at Hord Mill..... | Light MacArthur |
| Paddock..... | Spur track from 325 feet east of switch to end of track..... | Light MacArthur |
| Grand Island.... | Coal storage tracks in old material yard.... | Consolidation |
| | All shop tracks..... | Consolidation |
| | West leads to turntable..... | Consolidation |
| | Canning factory spur..... | Consolidation |
| | Horse barn track..... | Consolidation |
| | Freight house tracks..... | Consolidation |
| | Tracks on Front Street..... | Consolidation |
| | Tulley fence spur..... | Consolidation |
| | Farmer's Elevator spur..... | Consolidation |
| | Brewery spur..... | Consolidation |
| | Two south coal storage spurs..... | Light MacArthur |
| | Middle yard tracks Nos. 3, 4, 5, 6, and 7.... | Light MacArthur |
| | First track north of freight house..... | Light MacArthur |
| | Spurs east and west of depot..... | Light MacArthur |
| | Passenger yard rubbish spur..... | Light MacArthur |
| | Third, fourth and fifth tracks north of carmen's shanty, passenger yard..... | Light MacArthur |
| | Lumber yard tracks..... | Light MacArthur |
| | West stock yard track..... | Light MacArthur |
| | East caboose alley track..... | Heavy MacArthur |
| | West caboose alley track..... | Heavy MacArthur |
| | Scale track west of Dago track switch..... | Heavy MacArthur |
| | Coal chute hopper track..... | Heavy MacArthur |
| | Coal chute cinder track..... | Heavy MacArthur |
| | Paint and sand blast track..... | Heavy MacArthur |
| | Cross-over between inner and outer belt tracks just west of blow-off box east of coal chute..... | 2-10-2 |
| | Inner belt track..... | Must not be used by 800, 5000 and 9000 class engines. |

—Continued Opposite Side.

896 (R). Continued.

| Location | Track | Heaviest Engine Permitted |
|-----------------|---|---|
| Alda..... | Cornhusker Ordnance Plant..... | See note below |
| Gibbon..... | North storage track in wye..... | None permitted |
| Kearney..... | Motor car stall track..... | Consolidation |
| | Alley track..... | Consolidation |
| | Oil spur..... | Light MacArthur |
| | Old repair yard spur..... | Light MacArthur |
| | Freight house track..... | Light MacArthur |
| | Freight house spurs..... | Light MacArthur |
| | Enginehouse track..... | Heavy MacArthur |
| | Cut-off south of passenger depot to mill track | Heavy MacArthur |
| | First track north of roundhouse..... | Heavy MacArthur |
| Lexington..... | Third and fourth tracks north side, east of depot..... | Heavy MacArthur |
| Gothenburg.... | Water tank spur..... | Light MacArthur |
| | Wye track..... | Heavy MacArthur |
| North Platte... | Old engine Nos. 1, 4 and 5 tracks..... | Consolidation |
| | North and south stationary track..... | Consolidation |
| | Downtown tail track..... | Consolidation |
| | Downtown stationary boiler spur..... | Consolidation |
| | Swift & Company and water works spur.... | Consolidation |
| | Spur to carmen's shanty, passenger yard.... | Light MacArthur |
| | Storage spurs at new turntable..... | Light MacArthur |
| | Hopper track..... | Light MacArthur |
| | Oil spur at roundhouse..... | Light MacArthur |
| | Beyond frogs of turnouts of new repair tracks, retarder yard..... | Heavy MacArthur |
| Ogallala..... | Hopper track beyond coal chute..... | Light MacArthur |
| Julesburg..... | Spur track inside wye..... | Consolidation |
| | Wye track..... | 2-10-2, except must not be used by 800 class. |
| Sidney..... | Industry spur north of roundhouse..... | Consolidation |
| | Rip track north of wye..... | Light MacArthur |
| | High line track..... | Light MacArthur |
| | Freight house track..... | Light MacArthur |
| | Wye track, may be used by 800 and 9000 class engines not exceeding 5 MPH..... | 9000 class |
| Brownson..... | Government tracks (See note below)..... | Heavy MacArthur |
| Pine Bluffs.... | Pump house spur..... | Heavy MacArthur |
| Tracy..... | Industry spur..... | Heavy MacArthur |
| Durham..... | Industry spur..... | Heavy MacArthur |
| Cheyenne..... | Cross-over between east lead track to south yard and drill track at east end of south yard..... | Heavy MacArthur |

Note.—At Alda, inside Cornhusker Ordnance Plant area, Heavy MacArthur, and in emergency 2-10-2 type engines are heaviest engines permitted to use main track from south gate to the classification yard, but are restricted from using any of the turnouts, and these engines as well as lighter engines must not exceed 10 MPH on Ordnance Plant tracks.

Note.—At Brownson, 7000 class engines may operate at speed not to exceed 10 MPH from Brownson to Government Classification Yard and may operate at speed of not exceeding 5 MPH on Government Classification Yard tracks.

Continued on page 12.

| Location | Track | Heaviest Engine Permitted |
|-------------------|--|---|
| Ovid..... | Cross-over at beet hopper..... House track north of depot..... | Heavy MacArthur 2-10-2, except must not be used by 800 class. |
| Sterling..... | West industry spur..... East and west lead to sugar factory..... CB&Q coach spur..... Coal chute hopper track..... Alfa mill spur..... East and west stock and industry tracks..... | Heavy MacArthur Heavy MacArthur Heavy MacArthur Heavy MacArthur Heavy MacArthur 2-10-2, except must not be used by 800 class. |
| Hurley..... | House track..... | Heavy MacArthur |
| LaSalle..... | Sugar beet spur at east end..... Wye track..... Depressed track of cinder pit..... | Heavy MacArthur 2-10-2 None permitted |
| Wahoo..... | City spur..... | Heavy MacArthur |
| Weston..... | Chicago Lumber track..... | Light MacArthur |
| Valparaiso..... | Material track and west 550 feet of elevator spur..... | Heavy MacArthur |
| West Lincoln..... | Spur..... | Light MacArthur |
| Lincoln..... | Spurs north of freight house..... Engine house tracks..... Cinder pit spur..... Tracks south of K Street Tower (4th Street). Missouri Pacific transfer beyond second switch..... East lead to turntable..... East end all tracks west of main track..... Cut-off back of depot..... | Consolidation Light MacArthur Light MacArthur Light MacArthur Heavy MacArthur See note below Heavy MacArthur Heavy MacArthur |
| Beatrice..... | Swift track, from west switch to road crossing at west end Swift & Company plant Freight house spur across and west of Ella Street..... Sidings south of Court Street..... Allers Grain Company spur..... Other side tracks except main yard tracks 1, 2, 3, 4 and 5..... | Consolidation Consolidation Light MacArthur Light MacArthur Heavy MacArthur |
| Nevens..... | Stock track..... | Heavy MacArthur |
| Northport..... | Coal chute track..... | Heavy MacArthur |
| Gering..... | Swift & Company spur..... Brown Bean Company elevator and stock track..... Great Western Sugar Company tracks..... Tracks to railroad stockyards, Nebraska Certified Potato Growers and Inter-City Lumber Company..... Spur to Gering Lumber Company beyond Peterson's Potato Cellar..... Coal chute track..... | Consolidation Consolidation Heavy MacArthur Heavy MacArthur Heavy MacArthur Heavy MacArthur |
| Lyman..... | Great Western Sugar Co. tracks west of sign indicating end of U.P. ownership..... | Heavy MacArthur |
| Yoder..... | Coal chute track..... | Heavy MacArthur |
| Albin..... | Coal chute track..... | Heavy MacArthur |

Note.—At Lincoln, 5000 and 9000 class engines may use east lead to turntable between switch and turntable, but turntable must not be used in turning 9000 class engines. 800 class engines are not permitted to operate on this lead.

896 (S). At Norfolk, engines using Krug and Joyce tracks must back in.

At Sedgwick, Crook, Iliff, Atwood, Hurley and Kuner, 5000 class and heavier engines must not exceed 6 MPH on sugar beet tracks.
At Hurley, 2400 class engines must not exceed 5 MPH on house track.
At Sterling, cars must not be spotted between air boxes and Chestnut Street.
At LaSalle and Sterling, 800, 3900, 4000, 5000, 7000 and 9000 class engines must not be turned on turntables.

Close Clearances

900 (R). Pennsylvania box cars, series 36987-37090 inclusive, inside length 60 feet 6 inches and height over running board 15 feet 2½ inches.
At Omaha Union Station, these cars will clear west end of old style umbrella shed adjacent to Track 13 on inside of curve by only 3½ inches and must be carefully handled by these close clearances.

900 (S). 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. |
| First Subdivision | | |
| M.P. 7.94..... | C. & N. W. Bridge.. | Side on both tracks. |
| M.P. 23.86..... | Bridge..... | Side on both tracks. |
| Schuyler..... | Train order delivery cranes..... | Side on both tracks. |
| Columbus..... | Coal chute..... | Side and top on both tracks. |
| M.P. 86.49..... | Bridge..... | Side on both tracks. |
| Central City.... | Train order delivery cranes..... | Side on both tracks. |
| M.P. 158.0..... | Bridge..... | Side on both tracks. |
| Kearney..... | Coal chute..... | Side and top on both tracks. |
| Gothenburg..... | Coal chute..... | Top on both tracks. |
| Second Subdivision | | |
| Ogallala..... | Coal chute..... | Side and top on both tracks. |
| M.P. 358.85..... | Bridge..... | Side on both tracks. |
| Julesburg..... | Coal chute..... | Side and top on both tracks. |
| M.P. 390.57..... | Bridge..... | Side on both tracks. |
| M.P. 403.26..... | Bridge..... | Side on both tracks. |
| M.P. 403.87..... | Bridge..... | Side on both tracks. |
| Sidney..... | Coal chute..... | Side and top on westward track. |
| Sidney..... | Signal 4083..... | Side on westward track. |
| M.P. 419.57..... | Bridge..... | Side on both tracks. |
| M.P. 426.86..... | Bridge..... | Side on both tracks. |
| M.P. 506.33..... | Bridge..... | Side on both tracks. |
| Cheyenne..... | Passenger station train sheds..... | Sides. |
| Third Subdivision | | |
| M.P. 7.05..... | Bridge..... | Side. |
| M.P. 33.19..... | Bridge..... | Side. |
| M.P. 48.71..... | Bridge..... | Side. |
| M.P. 50.34..... | Bridge..... | Side. |
| Crook..... | Standpipe..... | Side. |
| Sterling..... | First semaphore east of depot..... | Side. |
| Sterling..... | Snow plows on main track or siding will not clear standpipes. Standpipe east of depot..... | Side. |
| Sterling..... | Standpipe west of depot..... | Side. |
| Sterling..... | Standpipe west of depot..... | Side. |
| Fort Morgan.... | Coal chute..... | Side. |
| M.P. 106.41..... | Bridge..... | Side. |
| M.P. 132.53..... | Bridge..... | Side. |
| Old Main Line | | |
| M.P. 12.65..... | Bridge..... | Sides. |

Continued on page 13.

900 (S). Continued.

| Location | Structure or obstruction | Clearance of engine or car is close at— |
|----------------------------|--|---|
| Beatrice Branch | | |
| Lincoln..... | O Street Viaduct.... | Top. |
| Lincoln..... | Buildings between G and H Streets..... | Sides. |
| Lincoln..... | Refrigerator Dock at Lincoln Packing Co. | Sides. |
| Stromsburg Branch | | |
| M.P. 0.34..... | Bridge..... | Sides. |
| Norfolk Branch | | |
| M.P. 47.89..... | Bridge..... | Sides. |
| Albion Branch | | |
| M.P. 15.90..... | Bridge..... | Sides. |
| Ord Branch | | |
| M.P. 20.99..... | Bridge..... | Sides. |
| Cedar Rapids Branch | | |
| M.P. 12.96..... | Bridge..... | Sides. |
| M.P. 22.55..... | Bridge..... | Sides. |
| M.P. 23.58..... | Bridge..... | Sides. |

900 (T). At Cheyenne passenger station, the following freight equipment must not be moved through umbrella sheds, account insufficient clearance:

Automobile cars: UP 261100 to 261199 incl., UP 361000 to 361199 incl., UP 561000 to 561199 incl., UP 761100 to 761199 incl.
In addition, movement of excessively high or wide foreign freight equipment or high and wide loads through these sheds is prohibited.
900 (U). 3700 and 3800 class cabooses must not be moved through umbrella sheds at Council Bluffs, Omaha and Cheyenne, account insufficient clearance.

Air Brake Rules

1006 (R). Standard brake pipe pressure in freight service North Platte to Cheyenne and Cheyenne to North Platte is 90 pounds.

1030 (R). Where Sperry rail-detector car is working when temperature is below freezing, trains, engines and track cars must be operated at a safe speed, using sand where necessary to overcome slippery condition caused by use of calcium chloride solution by rail car.

1035 (R). On passenger trains, running air test must be made at the following points:

- Summit —Eastward;
- Touhy —Westward;
- Loma —Eastward;
- M.P. 24, North Platte Cut-Off —Eastward.

1041 (R). On freight trains, air brake test as required by Air Brake Rule 1041 must be made at:
M.P. 24, North Platte Cut-Off —Eastward.

1042 (R). Retaining valves must be used on all eastward freight trains from M.P. 24, North Platte Cut-Off, to Tremain.

Exception:—Trains averaging not to exceed fifty-five gross tons per car may be handled without the use of retaining valves when handled by engines equipped with two air compressors which are operative.

1042 (S). Retaining valves must be used on trains consisting of more than 20 cars, any of which are explosives, being handled from classification yard, Sioux Ordnance Plant to Brownson.

One retaining valve must be turned up for each 5 cars in train. Example: If 50 cars in train, 10 retaining valves must be used consecutively, starting at head end of train. See Air Brake Rule 1042 (B).

All retaining valves must be turned down again upon arrival at Brownson.

RATING OF LOCOMOTIVES IN FREIGHT SERVICE, IN TONS OF 2,000 POUNDS
Total weight of trains, exclusive of locomotive and tender, which the different classes of locomotives will haul in each direction between stations named, under favorable weather conditions. A deduction of ten per cent may be made for fast trains.

| Type of Locomotive | Numbers (Inclusive) | Council Bluffs to Grand Island | Grand Island to North Platte | North Platte to Sidney | Sidney to Cheyenne | O'Fallons to Gering | Gering to South Tarrington | Yoder to Egbert | Valley to Wahoo | Wahoo to Valparaiso | Valparaiso to Lincoln | Lincoln to Hastings | Hastings to Gibbon | Julesburg to LaSalle | EXPLANATION |
|--------------------|---|--|------------------------------|------------------------|--------------------|---------------------|----------------------------|-----------------|-----------------|---------------------|-----------------------|---------------------|--------------------|----------------------|---|
| C 57 | 190 22 — 30 | 2300 | 3150 | 1500 | 1200 | 2250 | 2550 | 1300 | 2880 | 1200 | 2680 | 1800 | 2680 | 1700 | C.....Consolidation MacA.....MacArthur TTT.....2-10-2 UP.....4-12-2 FEF.....4-8-4 P.....Pacific MT.....Mountain |
| C 57 | 162 172 — 30 | 2000 | 2870 | 1300 | 1000 | 2000 | 2500 | 1200 | 2440 | 1100 | 2440 | 1400 | 2440 | 1500 | |
| MacA 57 | 206 210 — 23 1/4 | 3400 | 3490 | 2000 | 1600 | 2500 | 3150 | 1500 | 3300 | 1540 | 3300 | 1900 | 3000 | 2100 | |
| MacA 63 | 212 228 — 28 | 3800 | 3880 | 2500 | 1800 | 2700 | 3300 | 1650 | 3300 | 1650 | 3300 | 2000 | 3330 | 2400 | |
| MacA 63 | 222 30 — 30 | 3800 | 3970 | 2500 | 1800 | 3000 | 3360 | 1750 | 3300 | 1050 | 3300 | 2000 | 3400 | 2500 | |
| TTT 63 | 286 311 — 29 1/2 | 4800 | 5130 | 3100 | 2600 | | | | 4500 | 2300 | 4500 | 2500 | 4380 | 3000 | |
| UP 67 | 368 372 — 31-32 | 5800 | 7160 | 4700 | 4200 | | | | 6000 | 3100 | 6000 | 3500 | 7000 | 3800 | |
| 4-6-4 3 69 4 5 | 406 404 — 21-21 407 — 32 | 5800 | 7070 | 4900 | 4200 | | | | 4250 | 2300 | 4250 | 2500 | 4380 | 3200 | |
| 4-8-4 1 68 2 | 540 545 — 23 1/4-23 1/4 | 6800 | 8000 | 6500 | 6000 | | | | | | | | | | |
| FEF 77 | 266 32 — 24 1/2 | 4540 | 4540 | 3100 | 2600 | | | | | | | | | | |
| FEF 80 | 266 32 — 25 | 3400 | 3400 | 2000 | 1400 | | | | | | | | | | |
| P 77 | 163 167 — 25 184 — 26 193 — 32 | 2860 to 2899 2900 to 2911 3114 to 3138 3218 to 3227 | 3400 | 2000 | 1400 | 2800 | 3000 | 1200 | 2500 | 1350 | 2500 | 1900 | 3000 | 1700 | |
| MT 73 | 256 261 — 29 — 28 | 3800 | 3960 | 2500 | 2200 | | | | | | | | | | |

RATING OF LOCOMOTIVES IN FREIGHT SERVICE, IN TONS OF 2,000 POUNDS
Total weight of trains, exclusive of locomotive and tender, which the different classes of locomotives will haul in each direction between stations named, under favorable weather conditions. A deduction of ten per cent may be made for fast trains.

| Type of Locomotive | Numbers (Inclusive) | Cheyenne to Sidney | Sidney to North Platte | North Platte to Grand Island | Grand Island to Council Bluffs | Gering to O'Fallons | South Tarrington to Gering | Egbert to Yoder | Beatrice to Lincoln | Lincoln to Valparaiso | Valparaiso to Wahoo | Wahoo to Valley | Gibbon to Hastings | LaSalle to Julesburg | EXPLANATION |
|--------------------|---|--------------------|------------------------|------------------------------|--------------------------------|---------------------|----------------------------|-----------------|---------------------|-----------------------|---------------------|-----------------|--------------------|----------------------|---|
| C 57 | 190 22 — 30 | 2800 | 4500 | 4500 | 2300 | 3500 | 2350 | 1750 | 2880 | 1600 | 1200 | 1600 | 4500 | 4500 | C.....Consolidation MacA.....MacArthur TTT.....2-10-2 UP.....4-12-2 FEF.....4-8-4 P.....Pacific MT.....Mountain |
| C 57 | 162 172 — 30 | 1800 | 3000 | 4500 | 2000 | 3440 | 2140 | 1600 | 2440 | 1500 | 1050 | 1500 | 4500 | 3000 | |
| MacA 57 | 206 210 — 23 1/4 | 4500 | 4500 | 5000 | 3400 | 4100 | 2500 | 2000 | 2980 | 1910 | 1500 | 1910 | 5000 | 4500 | |
| MacA 63 | 212 228 — 26 — 28 | 4500 | 4500 | 5000 | 3800 | 4600 | 2900 | 2175 | 3330 | 1940 | 1600 | 1940 | 5000 | 5000 | |
| MacA 63 | 222 30 — 30 | 4800 | 4800 | 5000 | 3800 | 4700 | 2960 | 2275 | 3400 | 1950 | 1600 | 1950 | 5000 | 5000 | |
| TTT 63 | 286 311 — 29 1/2 | 5200 | 5200 | 5500 | 4800 | | | | 4500 | 3400 | 2220 | 3400 | 5500 | 6000 | |
| UP 67 | 368 372 — 31-32 | 8000 | 8000 | 8500 | 5800 | | | | 6000 | 4500 | 3000 | 4500 | 8500 | 6000 | |
| 4-6-4 3 69 5 | 406 404 — 21-21 407 — 32 | 8000 | 8000 | 8500 | 5800 | | | | 6000 | 4500 | 3000 | 4500 | 8500 | 6000 | |
| 4-8-4 1 68 2 | 540 545 — 23 1/4-23 1/4 | 9000 | 9000 | 9000 | 6800 | | | | 4500 | 3400 | 2220 | 3400 | 5500 | 6000 | |
| FEF 77 | 266 32 — 24 1/2 | 4170 | 4800 | 5500 | 4540 | | | | | | | | | | |
| FEF 80 | 266 32 — 25 | 3000 | 4000 | 4500 | 3400 | | | | | | | | | | |
| P 77 | 163 165 — 25 167 — 26 184 — 32 | 3000 | 4000 | 4500 | 3400 | | | | 4500 | 3400 | 2200 | 3400 | 5500 | 6000 | |
| MT 73 | 256 261 — 29 — 28 | 3650 | 4200 | 4700 | 3800 | | | | | | | | | | |