

UNION PACIFIC RAILROAD COMPANY
Eastern District

Kansas Division

Special Rules
No. 7

Effective Friday,
AUGUST 1, 1947

Superseding Special Rules No. 6.

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

A. E. STODDARD,
General Manager

ELGIN HICKS,
General Superintendent

J. E. MULICK,
Superintendent

2 (R). Operating Rules 2, 2 (A) and 2 (B) are cancelled. Employees listed below and other employees as may be designated 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 Agents | 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 employees as may be designated |
| Brakemen | |

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

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

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

10 (R). Rule 10 (H) is cancelled.

A sign reading "Reduce Speed" and showing by figures the maximum speed permitted, placed on engineer's side of track, indicates that the track one mile distant is in condition for a speed of not more than indicated by the "Reduce Speed" sign.

A sign reading "Resume Speed" placed on engineer's side of track indicates that reduced speed location has been passed.

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

The flagman will give proceed signal when rear of train has passed the "Resume Speed" sign.

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

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 possibility of it being obstructed, if red headlight is not set in motion automatically, engineer must immediately set it in motion by manual operation, and then extinguish white headlight.

A train on adjacent track must stop before passing headlight and be governed by 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 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 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). Rule 17 (C) is cancelled.

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

17 (T). Referring to Rule 17 (D): When a Diesel engine not displaying back-up headlight is standing or moving about yards at night under conditions not requiring display of markers, a red light must be displayed on rear of engine.

19 (R). Oscillating red rear end light on passenger trains will be designated as a night signal in accordance with Rule 9 and will 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 Rule 99 nor any other rule.

19 (S). Between West Abilene and East Salina, A. T. & S. F. trains will display yellow instead of green lights in markers.

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

24 (R). Wabash Diesel power units Nos. 1001-1001A operating between Kansas City and Denver are not equipped with train indicators.

Trains handled by these units will be identified by the unit numbers.

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

- | | | |
|---|--------------------|-------------------|
| Leavenworth Branch; | Enterprise Branch; | McPherson Branch. |
| Manhattan Branch, between Marysville and Manhattan; | | |
| Highland Branch; | | |

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

27 (S). Reflectorized type switch lamps are in use at the following stations:

- | | | | | | |
|---------|--------------|---------|---------|---------|-------|
| Trenton | Beverly | Lucas | Morland | Seguin | Mingo |
| Shipton | Vesper | Bogue | Studley | Menlo | Spica |
| Marydel | Sylvan Grove | Penokee | Hoxie | Halford | |

In case of headlight failure or engine backing up, trains and engines must approach facing point switches at these stations at restricted speed.

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

83 (R). All trains may register by registering ticket at Topeka passenger station. Information required by Rule S-83 at Topeka will be given to U. P. westward freight trains by train order at West Topeka.

83 (S). C. R. I. & P. trains entering or leaving C. R. I. & P. yard at Kaw Jct. will register by registering ticket.

83 (T). Solomon is registering station for Nos. 165, 166, 531 and 532 only.

East Salina is registering station for Nos. 79, 565, 159 and 531 only.

Hastings passenger station is registering station for Nos. 543 and 544 only.

83 (U). At Hiawatha, before fouling Missouri Pacific tracks by movement through a cross-over, flag protection as required by Rule 99 must be provided. In addition, information required by Rule S-83 and written line-up must be obtained from Missouri Pacific train dispatcher.

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

96 (R). Clearance must be received as follows:

- | | |
|-------------------------------|---|
| Union Station | —all westward trains; |
| Terminal Jct. | —all westward trains; |
| Topeka passenger station | —all westward U. P. passenger trains and all eastward C. R. I. & P. passenger trains; |
| Topeka C. R. I. & P. tower | —all eastward C. R. I. & P. freight trains; |
| Abilene C. R. I. & P. station | —all westward C. R. I. & P. trains; |
| Abilene A. T. & S. F. station | —all westward A. T. & S. F. trains; |
| Salina passenger station | —all trains; |
| Plainville | —all trains; |
| Colby | —all trains between 7 A. M. and 7 P. M. daily except Sunday; |
| Hastings passenger station | —all regular passenger trains; |
| Hastings yard office | —all trains except regular passenger trains; |
| Marysville | —all trains; |
| Troy | —all westward trains; |
| Leavenworth | —all westward trains. |

A Clearance Received At	By	Will Confer the Same Authority On	As When Received At
Abilene C. R. I. & P. station.	Westward C. R. I. & P. trains.	Western Subdivision.	West Abilene.
Abilene A. T. & S. F. station.	Westward A. T. & S. F. trains.	Western Subdivision.	West Abilene.
Salina passenger station.	No. 155.	Western Subdivision.	Junction City.
Salina passenger station.	No. 154.	Western Subdivision.	Ellis.
Salina passenger station.	Eastward C. R. I. & P. and A. T. & S. F. trains.	Western Subdivision.	East Salina.
Leavenworth.	Westward trains.	Leavenworth Branch.	Cochrane.

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

Location	Railroad Crossed	Trains Which Have Precedence	How Governed
11th & Santa Fe Sts., Kansas City, Mo.	St. L. & S. F.		Stop. Rules 98 and 98 (A).
Santa Fe St., Block 29, Kansas City, Mo.	M. P.		Stop. Rules 98 and 98 (A).
Between Eighth & Ninth Sts., Kansas City, Mo.	St. L. & S. F.		Stop. Rules 98 and 98 (A).
11th & Mulberry Sts., Kansas City, Mo.	C. B. & Q.		Stop. Rules 98 and 98 (A).
State Line Yard, Kansas City, Mo.	Yard track crosses yard tracks and M. P.		Stop. Special Rule 98 (S).
Berger Ave. & Railroad St., Kansas City, Kans.	C. R. I. & P.		Stop. Rules 98 and 98 (A).
Kansas Ave. & Railroad St., Kansas City, Kans.	K. C. P. S. Co.		Stop. Rules 98 and 98 (A).
Minnesota Ave. & M. P. Bridge, Kansas City, Kans.	M. P.		Interlocking.
Minnesota Ave. & Second St., Kansas City, Kans.	M. P.		Stop. Rules 98 and 98 (A).
State Ave., East Block 16, Kansas City, Kans.	M. P.		Gates normally set against U. P.
State Ave. South, Opposite Block 16, Kansas City, Kans.	M. P.		Stop. Rules 98 and 98 (A).
North City Limits, Kansas City, Kans.	M. P.		Stop. Rules 98 and 98 (A).
Terminal Jct. (M. P. 3.3)	Westward Passenger Line crosses Eastward Freight Line.		Block signals, instructions and signal from telegrapher-switchtender. Special Rule 509 (R).
Sunflower. (Cement Plant Lead)	K. C. K. V. & W.		Stop. Rules 98 and 98 (A).

Continued opposite side.

98 (R). Continued.

Location	Railroad Crossed	Trains Which Have Precedence	How Governed
Topeka. (M. P. 68.2)	C. R. I. & P.	U. P.	Manually controlled dwarf signals.
Manhattan. (M. P. 119.4)	C. R. I. & P.	U. P.	Stop, send flagman to crossing to give proceed signal when safe to proceed.
Salina. (M. P. 187.2)	A. T. & S. F.	U. P.	Block signals and gate.
Choctaw & Main Sts., Leavenworth.	L. T. & B. Co.		Interlocking.
Choctaw St. & Mo. River Bridge, Leavenworth.	L. T. & B. Co.		Interlocking.
Choctaw St. & Mo. River Bridge, Leavenworth.	C. G. W.		Interlocking.
Irving. (M. P. 152.7)	M. P.	M. P.	Stop, send flagman to crossing to give proceed signal when safe to proceed.
Beatrice. (M. P. 97.2)	C. R. I. & P.	U. P.	Stop. Rules 98 and 98 (A).
Concordia.	A. T. & S. F.	A. T. & S. F.	Gate.
Enterprise. (M. P. 1.3)	A. T. & S. F.	A. T. & S. F.	Gate.
Minneapolis. (M. P. 23.7)	A. T. & S. F.	U. P.	Stop. Rules 98 and 98 (A).
Beloit. (M. P. 57.2)	M. P.	M. P.	Stop. Rules 98 and 98 (A).
Salina (M. P. 0.5), McPherson Branch.	A. T. & S. F.	U. P.	Stop. Rules 98 and 98 (A).
Salina (M. P. 0.6), McPherson Branch.	C. R. I. & P.	U. P.	Stop. Rules 98 and 98 (A).
Salina (M. P. 0.6), McPherson Branch.	M. P.	U. P.	Stop. Rules 98 and 98 (A).
Lindsborg. (M. P. 20.7)	M. P.	M. P.	Stop at switch target until gate has been set against M. P. When entire train has passed the target on opposite side of crossing, the gate must be set against U. P.
McPherson. (M. P. 35.1)	A. T. & S. F.	A. T. & S. F.	Stop. Rules 98 and 98 (A).
Lincoln Center. (M. P. 33.8)	A. T. & S. F.	U. P.	Gate.

Continued on Page 4.

Location	Railroad Crossed	Trains Which Have Precedence	How Governed
St. Joseph, Mo.	U. T. R. R.		Stop. Rules 98 and 98 (A).
Fairbury. (M. P. 152.7)	C.R.I.&P.	U. P.	Stop. Rules 98 and 98 (A).
Belt Line Crossing. (M. P. 249.6)	Belt Line.	U. P.	Semaphore and gate.

98 (S). At State Line Yard, where yard track crosses other yard tracks, eastward trains and switch movements must stop before crossing and a member of crew must precede movement over crossing.

Before north or south movement may be made over crossing at night, a red light must be placed between rails of old westward main track 100 feet east of crossing.

During foggy or stormy weather, north and south movements over crossing must be protected by flagman on old eastward and westward main tracks before movement started.

99 (R). Last paragraph of Rule 99 is changed to read:

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

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

This does not change the requirements of Rule 99 (F).

Each caboose must be equipped with a red lantern for use as required by Rule 19 (C).

The equipment of each engine must include a red lantern as required by Rule 869.

Last sentence of Rule 870 is cancelled.

99 (S). Trains may be relieved from protecting against following extra trains by the use of Example (7) of train order Form E, only as follows:

- On St. Joseph Subdivision, between Troy and Home;
- On Grand Island Subdivision, between Hastings and Grand Island;
- On Manhattan Branch;
- On Leavenworth Branch;
- On Junction City Branch;
- On McPherson Branch;
- On Plainville Branch;
- On Highland Branch;
- On Solomon Branch.

103 (R). Referring to Rule 103 (D), when Diesel yard engine is used, a yardman or trainman may ride on side steps or platform in direction engine is moving instead of on leading footboard.

103 (S). Where reference is made in Rule 103 (C) to rear of tender of engines, this requirement will also apply to rear end of Diesel engines.

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

- At Kansas City, continuous movements between Fairfax District and main running track at Armstrong;
- At Junction City, main track movements;
- At Salina, movements in train yard between Santa Fe and Ohio Streets;
- At Ellis, main track movements;
- At Marysville, between train yard and Elm Street;
- At Hastings, between freight yard and freight house yard.

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

- Terminal Jct., junction switches—for Kansas City Terminal tracks;
- C. R. I. & P. Jct.—for Union Pacific main tracks;
- Kaw Jct.—for Union Pacific main tracks;
- Menoken, switches leading from Topeka Subdivision to siding in west end of yard—for Topeka Subdivision;
- Manhattan, Manhattan Branch main track switch just north of Poyntz Ave.—for passenger station;
- West Abilene—for Union Pacific main track;

Continued opposite side.

- East Salina—for Union Pacific main track;
- Miltonvale, junction switch—for A. T. & S. F. main track;
- Concordia, junction switch—for A. T. & S. F. main track;
- Troy, junction switch—for C. R. I. & P. main track;
- Stout, west end of siding—for Highland Branch main track.

105 (R). At Topeka, all westward U. P. second-class and extra trains will use north siding from end westward main track to west end of west long siding, or head out to main track through cross-over west of coal chute.

509 (R). At Terminal Jct., for movement to or from C. R. I. & P. yard, permission must first be obtained from telegrapher-switchtender and after switches are properly lined, trains must be governed by indication of signals.

Eastward trains and engines on old ice dock track must not pass Stop sign near east end of that track without permission from telegrapher-switchtender.

A westward train stopped by a dwarf signal, or an eastward train stopped by Signal 34, must not proceed until signal changes to Proceed indication or a proceed signal is received from telegrapher-switchtender given with a yellow flag or yellow light.

509 (S). At Kaw Jct., when dwarf signal governing westward movement from C. R. I. & P. yard, or lower unit of Signal 52, displays Stop indication, train or engine may proceed only on hand signal received from telegrapher-switchtender given with yellow flag or yellow light and after verbal explanation has been given by telegrapher-switchtender to trainman or engineer. This movement must be made at restricted speed.

509 (T). At Topeka, unless absolutely necessary, westward train must not occupy advance lighting section on west end of west long siding until ready to proceed. When necessary to occupy advance lighting section before ready to proceed and it is desired to permit movement of westward train on main track, the signaling may be transferred to permit movement by pressing push button on dwarf signal.

When dwarf signal displays Stop indication and there is no immediate conflicting train movement evident, spring switch must be opened for one minute; then closed to permit operation of release. After proper time interval, other conditions permitting, yellow indication will be displayed, which will permit movement at restricted speed.

If dwarf signal does not display yellow indication under above conditions, switch must be again opened and train must wait three minutes before moving to main track. Spring switch must not be lined and locked for main track until movement has been completed. Train must be governed by Rule 509.

509 (U). At Menoken, eastward Eastern Subdivision trains must not use siding without permission from the train dispatcher. Trains entering or leaving siding at east end are governed by the indication of signals.

When necessary to operate dual control switch at east end of siding by hand, lever marked Motor must be reversed before switch may be hand operated. When movement over switch has been completed, switch must be lined for main track and lever restored to Motor position and locked. A train stopped by signals governing movement over this switch may proceed when permission is received from the train dispatcher if there is no conflicting train movement evident, and must be governed by Rule 509.

Eastward Topeka Subdivision trains are governed by Signal 06 at west end of siding. Upper unit governs movement on siding to dwarf signal at east end of siding. Lower unit governs movement to main track through west cross-over, when switches are properly lined.

An eastward train stopped by Signal 06 or a westward train stopped by dwarf signal 250 feet east of telegraph office must not proceed without permission from the telegrapher-leverman and must be governed by Rule 509.

When instructed by train dispatcher to use west cross-over at Menoken, westward trains enroute Topeka Subdivision receiving red-over-yellow indication on signal at east switch Menoken, may proceed at restricted speed on main track to west cross-over, if no eastward first-class train is due.

509 (V). Movements on Fort Riley siding and on Funston running track between west switch at East Funston and east switch at Fort Riley are governed by dwarf signals. All movements on these tracks must be made at restricted speed.

When a yellow light is displayed on governing dwarf signal, train or engine may proceed.

When a red light is displayed on governing dwarf signal or when dwarf signal is not visible, trains or engines must not enter these tracks, or move on these tracks, unless preceded by flagman.

Trains must not use Funston running track unless authorized by train dispatcher.

518 (R). At Hanover, Davenport, Edgar and Hastings, when dwarf signal displays Stop indication, or when light is not burning on dwarf signal, train or engine must stop, flagman sent to crossing to give proceed signal when safe to proceed, and be governed by Rule 509.

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

- At Kaw Jct.:
 - C. R. I. & P. eastward trains, for diverging track..... — o
- At Bonner Springs, over A. T. & S. F. Crossing:
 - For switch for eastward trains to enter siding..... — o
- At Topeka, over A. T. & S. F. Crossing:
 - For main track switch to east yard and rip track..... — o
 - For Rock Island—Curtis Street connection..... o o — o
 - For Golden Belt Elevator tracks..... — o o —
 - For Santa Fe interchange tracks..... — o — o
 - For cross-over, 700 feet east of crossing..... — o — o
- At Menoken:
 - Westward trains, for main track..... —
 - Westward trains, for diverging track..... — o
- At Hastings (M. P. 227.2):
 - For main track..... —
 - For diverging track..... — o

713 (R). A trainman must be stationed on rear of train in position to give or receive signals, when passing depot at the following stations:
Terminal Junction,
Kaw Junction.

719 (R). Passengers with tickets may be carried on freight trains between stations at which the trains stop, except trains consisting mostly of stock.

Within the State of Kansas, on freight trains, passengers under 15 years of age must be accompanied by parent, guardian or other competent person.

721 (R). Unauthorized persons, including deadhead train or engine crews, must not occupy cab of trailing unit of Diesel engine on freight or passenger train.

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.

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.

802 (S). Trainmen, enginemen, yardmen, agents and other employes 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 (a). (1) A car requiring car certificates and "Explosives," "Dangerous," or "Poison Gas" placards under the provisions of these regulations shall not be transported unless such freight car is at all times placarded and certificated as required by these regulations. Placards lost in transit shall be replaced at next inspection point.

BE 589 (a). (2) 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.

Switching Cars Containing Explosives or Poison Gas

BE 589 (b). (1) 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 (b). (2) 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 (b). (3) Closed cars placarded "Explosives" shall have doors closed before they are moved.

Continued opposite side

Switching of Cars Containing Dangerous Articles

BE 589 (c). (1) In switching operations where use of hand brakes is not 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 (c). (2) 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 (d). (1) 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 Train

BE 589 (e). (1) At all terminals or other places where trains are made up, the railroad shall execute a consecutively numbered notice showing the location in the freight 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 Train of Cars Containing Explosives

BE 589 (f). (1) In a train either standing or during transportation thereof, a car placarded "Explosives" shall, when the length of the train permits, be not nearer than the sixteenth car from both the engine or occupied caboose; and shall, when the length of the train will not permit them to be so placed, be as near as possible to the middle of the train.

BE 589 (f). (2) In a freight train or mixed train either standing or during transportation thereof, a car placarded "Explosives" must not be handled next to any car placarded "Dangerous." A car placarded "Explosives" or a placarded loaded tank car shall not be next to:

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

Position in Train of Loaded Placarded Tank Cars

BE 589 (g). (1) In a train either at rest or during transportation thereof, a placarded loaded tank car shall not, when the length of the train permits, be nearer than the sixth car from the engine or occupied caboose, but in no instance nearer than the second car in such train unless the entire train consists of such cars.

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

BE 589 (h). (1) In a train either at rest or during transportation, a car placarded "Poison Gas" or containing poison liquid Class A shall not be next to other freight cars placarded "Explosives" or cars placarded "Dangerous."

802 (S). Continued.

Position in Train of Cars Placarded "Explosives" and "Poison Gas" or Containing Poison Liquids When Occupied By Cars Carrying Gas Handling Crews

BE 589 (i). (1) 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.

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

BE 589 (j). (1) 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 between points between which freight train service is not operated.

BE 589 (j). (2) 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 sec. 589 (i) (1).

BE 589 (j). (3) 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 these regulations.

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

802 (T). At Solomon, back-up movement of motor train may be made over street crossings without being preceded by a trainman. Train must move at restricted speed and conductor must be located on rear platform in position to stop train by use of back-up hose. Back-up hose whistle must be sounded when approaching crossings.

802 (U). At Manhattan, before using cross-over from middle track south of Poyntz Avenue, it must be known that cross-over is not blocked by cars in process of unloading.

802 (V). Cars may be handled ahead of engine when necessary, between Stout and Highland.

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

804 (R). Assistant Supervisor Oil-Gas-Electric Mobile Power is responsible for the proper sealing of cut-out cock controlling the safety control feature in air brake equipment of Diesel-electric road locomotives; however, engineer must know that cut-out cock is sealed in proper position when taking over Diesel road locomotive and before departure of train from terminal.

804 (S). Stock 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 in accordance with Rule 804 (A), if there is any possibility of their moving.

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). In addition to making inspection of train as often as practicable, as per Rule 811, all Union Pacific freight trains must stop and must be inspected at Topeka.

823 (R). On multiple unit Diesel engine, not more than four men may ride in cab of leading unit. On freight train when cab is occupied by four men, head brakeman will ride in cab of trailing unit.

874 (R). Duties of firemen on multiple unit Diesel-electric road locomotives:

Second paragraph of Rule 874 is changed to read: "On Diesel-electric through passenger trains that make few or no stops, fireman will remain in control room at all times when train is in motion."

At initial terminals, before departure, fireman will go through engine rooms and make careful inspection of gauge indications, oil levels, engine temperatures and shutter controls. Any unusual condition detected or irregularity found must be reported to engineer.

At all intermediate stations or stops, when time permits, fireman will make same observations in engine rooms as outlined above.

At points where firemen change, incoming fireman will assist outgoing fireman in inspecting gauges, blowing boilers and other required duties.

At stations where locomotive is to be detached, fireman will close main valve to train heat line.

When locomotive is coupled to train at initial or intermediate station, or where cars are cut in or cut out of train, fireman, on request or proper signal, will open main valve to train heat line. Unless locomotive equipped with remote control valve, opening or closing of main valve to train heat must be done while train is standing.

Warning lights located in cab on left side of panel board indicate:

1. Low oil pressure.
2. Hot engine.
3. Fire out in steam heat generator.

Warning bell located in cab will ring when any of the above indications are displayed. If necessary, train must be stopped for inspection and necessary attention.

875 (R). When an engine crew has taken charge of an oil-burning engine, the engine must not be left without an engineman in charge until delivered to roundhouse employe.

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.

895 (R). Engines, other than helper engines, must not take water at Hanover.

896 (R). Engines of any class must not go on the following tracks:

- | | |
|-------------|--|
| Muncie | —Over bridge on sand spur; |
| Forest Lake | —Alongside high sand piles on sand spur; |
| Sunflower | —Track No. 6, and Gypsum track; |
| St. Marys | —Over hopper hole, north of street crossing on College spur; |
| Manhattan | —Beyond clearance point on Ramey spur; |
| | —Hollenbeck spur; |
| Ellsworth | —Old creamery spur; |
| Yocemento | —Beyond elevator on track serving stock yards and elevator. |

200 and 300 class and heavier engines must not go on the following tracks:

- | | |
|--------|---|
| Salina | —Industry track between Second and Third Streets from Elm to Ash Streets. |
|--------|---|

1900 class and heavier engines must not go on the following tracks:

- | | |
|---------------|--|
| Muncie | —Business track; |
| Sunflower | —Any track, except lead track, at Lone Star Cement Company plant; |
| | —River tracks; |
| Lawrence | —Mill spur; |
| Wamego | —Ice Plant and Perry Packing & Wholesale Co. spurs; |
| Manhattan | —Hogan Mill spur; |
| Junction City | —Plaster Mill tracks Nos. 2 and 3 beyond frog of No. 3 track switch; |
| Blue Rapids | —Missouri Pacific transfer. |
| Irving | |

2200 class and heavier engines must not go on the following tracks:

- | | |
|-----------|--|
| Topeka | —Enginehouse tracks, east of cinder pit; |
| Topeka | —Turnout on tracks Nos. 3, 4, 5, 6 and 7 of material yard; |
| St. Marys | —College spur; |
| Manhattan | —Team spur at freight house, house spur, and curve in middle track near Poyntz Ave.; |

Continued on Page 7.

896 (R). Continued.

- | | |
|-------------|---|
| Eureka Lake | —Stock track; |
| Salina | —Rip track, No. 10 track, old ice house track, curve at west end of coal chute track, and east leg of McPherson Branch wye south of Shellabarger Mill track switch; |
| Ellsworth | —Weber Mill spur. |

Union Pacific 2800 class and heavier, and C. R. I. & P. 2500 and 2600 class and heavier engines must not go on the following tracks:

- | | |
|--------|----------------------------|
| Topeka | —No. 1 track in east yard. |
|--------|----------------------------|

5000 class and heavier engines must not go on the following tracks:

- | | |
|----------------|---|
| Muncie | —Sand spur; |
| Bonner Springs | —Business track; |
| Loring | —Quarry tracks; |
| Lenape | —Business track; |
| Linwood | —Business and Tudhope tracks; |
| Fall Leaf | —Business track; |
| Midland | —Business track; |
| Topeka | —North Nigger track; |
| Silver Lake | —Elevator, stock and house tracks; |
| Belvue | —Elevator and stock track; |
| Manhattan | —Any side track east of C. R. I. & P. crossing on north side of main track, except Manhattan Branch main track as far as switch to Blue Valley track, west end of freight house track, and middle track from west switch to Houston street; |
| Kansas Falls | —Elevator track; |
| Chapman | —Stock track; |
| Kanopolis | —West scale track, beyond mine building; |
| Black Wolf | —Stock track; |
| Onaga | —Old L. K. & W. house track; |
| Marysville | —East leg of wye; |
| Hanover | —West end of stock track, No. 6 track and yard tracks south of passing track; |
| Fairbury | —Mill, city, beer tracks, city light plant, alfalfa and auto dock spurs; |
| Glenvil | —Navy track; |
| Hastings | —City Light Plant spur. |

5000 class engines must not exceed 5 M.P.H. on the following tracks:

- | | |
|--------------|---|
| Bavaria | —Stock and elevator tracks; |
| Brookville | —Elevator track; |
| Carneiro | —Stock track; |
| Black Wolf | —Elevator track; |
| Homer | —Elevator track; |
| Balta | —Elevator track; |
| Toulon | —Elevator track; |
| Yocemento | —Track serving stock yards and elevator, and must not go beyond elevator; |
| Blue Springs | —Spur to business track. |

Engines which are permitted to use following tracks must not exceed 5 M.P.H.:

- | | |
|-------------|--|
| Muncie | —East of bridge on sand spur; |
| St. Marys | —College Spur; |
| Solomon | —Wye track (except 400 class and lighter engines must not exceed 15 M.P.H.); |
| Wilson | —North elevator track; |
| Bunker Hill | —Stock track; |
| Victoria | —Stock track; |
| Ellis | —Nos. 1, 2 and 3 tracks in old yard. |

200 and 300 class engines may use following tracks, not exceeding 5 M.P.H.:

- | | |
|---------|------------------|
| Trenton | —Elevator track; |
| Shipton | —Elevator track; |

Continued opposite side

896 (R). Continued.

- | | |
|----------------|------------------|
| Culver | —House track; |
| Tescott | —House track; |
| Beverly | —House track; |
| Shady Bend | —Stock track; |
| Lincoln Center | —Elevator track; |
| Sylvan Grove | —House track; |
| Wolf Creek | —Spur track; |
| Lucas | —Mill spur; |
| Paradise | —House track; |
| Natoma | —House track; |
| Plainville | —Stock track. |

9000 class and heavier engines must not go on the following tracks:

- | | |
|--------------|--|
| Grove | —Business track; |
| Duluth | —West end of business track; |
| Lillis | —Turnout of west switch of industry track; |
| Frankfort | —M. P. transfer, and turnout of west switch of industry track; |
| Winifred | —Turnout of west switch of industry track; |
| Upland | —Turnout of west switch of cross-over from siding to main track, just west of depot; |
| Carden | —Business track; |
| Bremen | —East end of business track; |
| Hanover | —West end of stock track, all storage tracks, and turnout of east switch of No. 6 track; |
| Spence | —Business track; |
| Hollenberg | —Business track; |
| Steele City | —Business track; |
| Endicott | —Business track; |
| Fairbury | —Beer and city tracks, alfalfa, city light and auto dock spurs, on old stock track between west switch and stock chute, and mill track, from elevator west of Third Street to west switch; |
| Powell | —Business track; |
| Alexandria | —Business track; |
| Belvidere | —Business track; |
| Carleton | —House, elevator, and between west stock track switch and stock chute on stock track; |
| Davenport | —West end of business track; |
| Sedan | —Business track; |
| Edgar | —Business track; |
| Fairfield | —Freight house, business and storage tracks, except that 9000 class engines may pick up stock from east end; |
| Anan | —Business track; |
| Glenvil | —Business track; |
| Hastings | —Uptown and storage tracks; |
| Marietta | —Business track; |
| Oketo | —All tracks except passing track; |
| Barneston | —All tracks except passing track; |
| Stone Siding | —All tracks; |
| Blue Springs | —Storage track and business track; may use spur track not exceeding 5 M.P.H.; |
| Holmesville | —Turnout of west switch of industry track; |
| Beatrice | —Turnout of east switch of spur at M. P. 97.6. |

900 (R). Pennsylvania box cars, series 36987-37090, inclusive, inside length 60 feet 6 inches and height over running board 15 feet 2 1/2 inches. The handling of these cars must be closely watched when movements made over yard, warehouse and industrial tracks and tracks adjacent to umbrella and train sheds at passenger stations, to know there is sufficient clearance.

Continued on Page 8.

900 (R). Continued

These cars, when loaded to axle capacity, will have gross weight of 169,000 pounds for car and lading, and must not be moved over the following branch lines:

- Leavenworth Branch —Account rail;
- Junction City Branch —Account bridges;
- Solomon Branch —Account bridges;
- McPherson Branch —Account rail;
- Highland Branch —Account rail;
- Plainville Branch —Account rail.

They may be operated over main tracks and other branch lines, also passing and yard tracks ordinarily used by through freight trains.

If necessary to operate these cars on outside spur tracks on curves at Kansas City passenger terminal, care must be exercised on account of close clearance of umbrella sheds adjacent thereto. They will clear bay window of Penn Avenue interlocking tower 3 inches vertically and 3 1/4 inches horizontally.

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.
Eastern Subdivision.		
M. P. 0.88.....	Bridge.....	Sides and top on both tracks.
Kansas City, Kans.	Standpipe.....	Side on westward track.
Kansas City, Kans.	Tenth Street Viaduct....	Top on both tracks.
M. P. 6.87.....	Bridge.....	Sides on both tracks.
M. P. 9.30.....	Block Signal 93.....	Side on westward track.
M. P. 11.38.....	Bridge.....	Sides on both tracks.
M. P. 25.46.....	Bridge.....	Sides on both tracks.
M. P. 27.86.....	Bridge.....	Sides on both tracks.
M. P. 34.35.....	Bridge.....	Sides on both tracks.
M. P. 35.95.....	Bridge.....	Sides on both tracks.
Lawrence.....	Standpipe east of depot..	Side on eastward track.
Perry.....	Standpipe west of depot..	Side on westward track.
M. P. 52.60.....	Bridge.....	Sides on both tracks.
M. P. 60.88.....	Bridge.....	Sides on both tracks.
M. P. 66.76.....	Bridge.....	Sides on both tracks.
Topeka.....	Standpipe east of pas- senger station.....	Side on eastward track.
M. P. 84.29.....	Bridge.....	Sides.
M. P. 96.72.....	Bridge.....	Sides.
M. P. 97.13.....	Bridge.....	Sides.
M. P. 97.23.....	Bridge.....	Sides.
M. P. 99.66.....	Bridge.....	Sides and top.
Wamego.....	Standpipe west of depot..	Side.
M. P. 117.61.....	Bridge.....	Sides.
M. P. 137.18.....	Bridge.....	Sides and top.
Western Subdivision.		
M. P. 151.55.....	Bridge.....	Sides.
Abilene.....	Standpipe west of depot..	Side.
M. P. 173.62.....	Bridge.....	Sides and top.
M. P. 181.12.....	Bridge.....	Sides.
Salina.....	Standpipe.....	Side.
Salina.....	Coal chute.....	Side and top.
M. P. 187.12.....	Bridge.....	Sides.
M. P. 195.06.....	Bridge.....	Sides and top.
M. P. 201.94.....	Bridge.....	Sides.
M. P. 202.44.....	Bridge.....	Sides.
Dorrance.....	Coal chute.....	Side and top.
Dorrance.....	Standpipe.....	Side.
M. P. 274.01.....	Bridge.....	Sides.
M. P. 285.04.....	Bridge.....	Sides.
M. P. 290.62.....	Bridge.....	Sides and top.

Continued opposite side

900 (S). Continued.

Location	Structure or obstruction	Clearance of engine or car is close at—
Solomon Branch.		
M. P. 23.65.....	Bridge.....	Sides and top.
Plainville Branch.		
M. P. 1.16.....	Bridge.....	Sides.
M. P. 10.69.....	Bridge.....	Sides and top.
M. P. 33.38.....	Overhead bridge.....	Sides and top.
M. P. 33.45.....	Overhead bridge.....	Sides and top.
M. P. 33.66.....	Overhead bridge.....	Sides and top.
Bogue.....	Standpipe.....	Side.
M. P. 135.22.....	Bridge.....	Sides.
M. P. 139.67.....	Bridge.....	Sides.
M. P. 145.06.....	Bridge.....	Sides.
M. P. 145.91.....	Bridge.....	Sides.
M. P. 150.46.....	Bridge.....	Sides and top.
M. P. 151.49.....	Bridge.....	Sides and top.
M. P. 154.40.....	Bridge.....	Sides and top.
Hoxie.....	Standpipe.....	Side.
Menlo.....	Water tank spout.....	Side and top.
Colby.....	Standpipe.....	Side.
McPherson Branch.		
Between 8 poles west of M. P. 3 and 4 poles east of M. P. 4. M. P. 21.42.....	Anchor posts and tie wires west side of track.....	Side.
	Bridge.....	Top.
Topeka Subdivision.		
M. P. 7.09.....	Bridge.....	Sides and top.
M. P. 8.70.....	Bridge.....	Sides and top.
M. P. 20.51.....	Bridge.....	Sides.
M. P. 34.45.....	Bridge.....	Sides and top.
St. Joseph Subdivision.		
Severance.....	Water tank spout.....	Side and top.
M. P. 25.74.....	Bridge.....	Sides and top.
Hiawatha.....	Standpipe.....	Side.
Sabetha.....	Standpipe.....	Side.
Sabetha.....	Coal chute.....	Side.
M. P. 76.22.....	Bridge.....	Sides.
Seneca.....	Standpipe.....	Side.
Grand Island Subdivision.		
Marysville.....	Standpipe.....	Side.
Marysville.....	Coal chute.....	Side.
M. P. 114.40.....	Bridge.....	Sides and top.
M. P. 117.75.....	Bridge.....	Sides.
Hanover.....	Water tank spout.....	Side.
Edgar.....	Standpipe.....	Side.
Hastings.....	Standpipe.....	Side.

Continued on Page 9.

900 (S). Continued.

Location	Structure or obstruction	Clearance of engine or car is close at—
Manhattan Branch.		
M. P. 100.50.....	Bridge.....	Sides.
M. P. 109.23.....	Bridge.....	Sides.
M. P. 123.26.....	Bridge.....	Sides.
M. P. 124.29.....	Bridge.....	Sides.
Marysville.....	Standpipe.....	Side.
Marysville.....	Coal chute.....	Side.
M. P. 135.10.....	Bridge.....	Sides.
M. P. 139.37.....	Bridge.....	Sides.
M. P. 146.03.....	Bridge.....	Sides.
M. P. 162.85.....	Bridge.....	Sides.
M. P. 167.97.....	Bridge.....	Sides.
Garrison.....	Standpipe.....	Side.
M. P. 179.68.....	Bridge.....	Sides.
M. P. 180.67.....	Bridge.....	Sides.
M. P. 187.79.....	Overhead bridge.....	Sides and top.
Junction City Branch.		
Wakefield.....	Water tank spout.....	Side and top.
M. P. 22.41.....	Bridge.....	Sides.
Clay Center.....	Water tank spout.....	Side.
M. P. 36.19.....	Bridge.....	Sides.
Leavenworth Branch.		
M. P. 7.79.....	Bridge.....	Sides.
M. P. 14.01.....	Bridge.....	Sides.
M. P. 16.89.....	Bridge.....	Sides.
M. P. 26.27.....	Bridge.....	Sides.
M. P. 31.01.....	Bridge.....	Sides.
M. P. 1.69 (between Corral and Knox)....	Overhead bridge.....	Top.

1006 (R). Standard brake pipe pressure for main line passenger trains is 110 pounds.

1018 (R). Air Brake Rule 1018 is changed to read:

"Speed governor control with high speed control brake equipment must be in operation on passenger train cars so equipped, when handled in passenger trains and must be made inoperative when such cars are handled in freight and mixed trains. Toggle switch located adjacent to air brake control relay cabinet controls operation of speed governor control and must be placed in 'On' position for operation and in 'Off' position to discontinue operation. Safety valve on D-22 control valve must be adjusted to 75 pounds air pressure when speed governor control is in operation and this safety valve must be adjusted to 60 pounds air pressure when speed governor control is not in operation."

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 used by rail car.

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

- M. P. 210.5 Western Subdivision —Westward;
- M. P. 216.7 Western Subdivision —Eastward;
- M. P. 75.5 Plainville Branch —Eastward and westward.

1093 (R). Following has been added to Air Brake Rule 1093 (I):

If rear end of rear car is not equipped with inside operating lever to steam train line end valve, or if for any reason inside operating lever cannot be operated, trainman must fully open steam train line end valve from ground immediately after train is stopped.

RATING OF ENGINES IN FREIGHT SERVICE, IN TONS OF 2,000 POUNDS.

Total weight of trains, 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.

Type of Engine	Numbers (Inclusive)	Kansas City to Salina	Salina to Ellsworth	Ellsworth to Ellis	St. Joseph to Double	Double to Hamlin	Hamlin to Marysville		Marysville to Hanover	Hanover to Hastings	Menoken to Marysville		Marysville to Beatrice
C 57 $\frac{22}{30}$	190	201 to 358	3500	1300	1800				1430	2690	2070		2070
C 57 $\frac{21}{30}$	162 172	400 to 498	2500	1000	1500	1180	1400	1180	1300	2455	1895		1895
MacA 57 $\frac{23\frac{3}{4}}{30}$	206 210	1900 to 1949	4200	1500	2000				1600	3000	2500		2500
MacA 63 $\frac{26}{28}$	212 228	2200 to 2320	4500	1700	2200				1650	3200	2600		2600
MacA 63 $\frac{26}{30}$	222	2480 to 2499	4800	1900	2400				1800	3300	2700		2700
TTT 63 $\frac{29\frac{1}{2}}{30}$	286 311	5000 to 5089	5500	2400	3000				2290	4400	3400		3500
UP 67 $\frac{27}{31-32}$	368 372	9000 to 9087	6500						3200	5200	4500		4500
FEF 77 $\frac{24\frac{1}{2}}{32}$	266	800 to 819											
			5480	1780	2350	2130	2130	1820	1940	3530	2910		2950
FEF 80 $\frac{25}{32}$	266	820 to 844											
P 77 $\frac{22}{28}$	149	2800 to 2859	3000	1050	1550				1100	2000	1800		1800
P 77 $\frac{25}{26}$	163 165 167 184 193	2860 to 2899 2900 to 2911 3114 to 3138 3218 to 3227	3720	1220	1610	1460	1460	1270	1340	2400	1990		2010
MT 73 $\frac{29}{28}$	256 261	7000 to 7038 7850 to 7869	4770	1590	2060	1870	1870	1640	1710	3100	2550		2580

EXPLANATION

C.....Consolidation
 MacA.....MacArthur
 P.....Pacific
 TTT.....2-10-2
 UP.....4-12-2
 FEF.....4-8-4
 MT.....Mountain

EXAMPLE: Consolidation engine having 57-inch drivers, cylinders 21-inch diameter and 30-inch stroke, and weighing 162,000 pounds on drivers:

$\frac{21}{30}$
 C 57 $\frac{21}{30}$ 162

RATING OF ENGINES IN FREIGHT SERVICE, IN TONS OF 2,000 POUNDS.

Total weight of trains, 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.

Type of Engine	Numbers (Inclusive)	Salina to Kansas City	Ellsworth to Salina	Ellis to Ellsworth	Double to St. Joseph	Stout to Double	Hiawatha to Stout	Marysville to Hiawatha	Hanover to Marysville	Hastings to Hanover	Marysville to Aikins	Aikins to Menoken	Beatrice to Marysville
C 57 $\frac{22}{30}$	190	201 to 358	4500	1300	3000				1410	3560	2330	3900	2070
C 57 $\frac{21}{30}$	162 171	400 to 498	3200	1000	2200	1900	1090	2140	1175	1290	3250	2140	3550 1895
MacA 57 $\frac{23\frac{3}{4}}{30}$	206 210	1900 to 1949	4500	1500	3000				1600	3960	2575	4300	2500
MacA 63 $\frac{26}{28}$	212 228	2200 to 2320	5500	1800	3800				1650	4200	2760	4300	2650
MacA 63 $\frac{26}{30}$	222	2480 to 2499	5800	2000	4000				1700	4500	2900	4500	2800
TTT 63 $\frac{29\frac{1}{2}}{30}$	286 311	5000 to 5089	6000	2500	5000				2300	5500	3800	4900	3500
UP 67 $\frac{27}{31-32}$	368 372	9000 to 9087	6500						3200	6500	4800	6000	4500
FEF 77 $\frac{24\frac{1}{2}}{32}$	266	800 to 819											
			5480	1400	3140	2130	1640	5160	1780	2030	6200	2480	3400 2200
FEF 80 $\frac{25}{32}$	266	820 to 844											
P 77 $\frac{22}{28}$	149	2800 to 2859	3700	1050	2600				1100	3000	2100	3300	1700
P 77 $\frac{25}{26}$	163 165 167 184 193	2860 to 2899 2900 to 2911 3114 to 3138 3218 to 3227	4000	1100	2700	1460	1120	3500	1220	1400	4250	2300	3300 1800
MT 73 $\frac{29}{28}$	256 261	7000 to 7038 7850 to 7869	4770	1250	2750	1870	1460	4500	1590	1800	5410	2490	3350 1920

EXPLANATION

C.....Consolidation
 MacA.....MacArthur
 P.....Pacific
 TTT.....2-10-2
 UP.....4-12-2
 FEF.....4-8-4
 MT.....Mountain

EXAMPLE: Consolidation engine having 57-inch drivers, cylinders 21-inch diameter and 30-inch stroke, and weighing 162,000 pounds on drivers:

$\frac{21}{30}$
 C 57 $\frac{21}{30}$ 162