

DEERFIELD AND ROUNDABOUT RAILWAY TRANSPORTATION RULES

The rules herein set forth take effect October 9, 2017
and supersede previous rules inconsistent therewith.

Additional special instructions may be issued by proper authority.

These rules are in accordance, as far as practicable, with the
Standard Code of the American Railway Association, circa 1930.

Naturally, rules cannot be made to cover all points that may arise. Safety and Efficiency can be brought about only by mutual cooperation. To the end that the Deerfield and Roundabout Railway may at all times be a safe highway of travel, all personnel are urged to bear in mind that safety always and at all times shall be the first aim.

J. G. Hook, Chief Train Dispatcher

GENERAL NOTICE

Safety is of the first importance in the discharge of duty.

Obedience to the rules is essential to safety.

GENERAL RULES

A. Personnel must be conversant with and obey all rules and special instructions. Rules and special instructions must be carried out intelligently to achieve an efficient operation. If in doubt as to the meaning of any rule or special instruction personnel must apply to the train dispatcher, if on duty, for explanation, or if no train dispatcher is on duty, must apply to another Member having greater knowledge of the rules and special instructions for explanation.

Conductors, engineers, trainmen, signalmen and other personnel concerned must examine and familiarize themselves with all bulletins and special instructions that are posted on bulletin boards before leaving on their first trip or before commencing work, failure to do so will not be accepted as excuse for neglect or violation of bulletins or special instructions.

B. Personnel must pass the required examinations before performing service on the railway.

C. Any violation of the rules or special instructions must be reported promptly to the train dispatcher, if on duty, or if no train dispatcher is on duty, then to the Board of Directors as soon as possible.

D. Accidents, injuries, defects in track, bridges, signals or any unusual condition which may affect the safe operation of rail equipment at facilities of the Lake Forest Live Steamers Railway Museum Incorporated shall be reported immediately to the train dispatcher, if on duty, and shall be communicated immediately by whatever means necessary to all personnel and Members present and shall be posted immediately on the Train Crew Bulletin Board. The Board of Directors shall be made aware of the circumstances as soon as possible.

E. In case of danger to the railway property, personnel must unite to protect it.

G. The use of alcoholic beverages or other controlled substances by personnel subject to duty, or their possession or use while on duty, is prohibited.

M. Personnel must exercise care to prevent injury to themselves or others.

Personnel will not be retained in the service of the railway who are careless of the safety of themselves or others, disloyal, insubordinate, dishonest, immoral, quarrelsome or who conduct themselves in such a manner that the railway is subjected to criticism or loss of good will.

Personnel must expect the movement of trains, engines, cars or other movable equipment at any time, on any track, in either direction.

Personnel must inform themselves as to the location of structures or obstructions where clearances are close.

DEFINITIONS

Note: Rules and special instructions that apply to the movement of trains also apply to the movement of engines.

Note: The use of the word "rules" shall be understood to also include special instructions.

Note: The use of the phrase "train dispatcher" shall be understood to mean the train dispatcher on duty.

ABSOLUTE BLOCK - A block in which only one train is allowed to occupy at a time.

ABSOLUTE PERMISSIVE BLOCK - A block in which opposing trains are not allowed to occupy at the same time, but in which two or more trains in the same direction are allowed to occupy at the same time.

APB - Abbreviation for Absolute Permissive Block.

APPROACH SWITCH - A track side electrical switch that the engineer operates in order to change the indication of a signal to a "Proceed" indication.

AUTOMATIC BLOCK SIGNAL SYSTEM - A block or a series of consecutive blocks governed by block signals, cab signals, or both, actuated by a train, or engine, or by certain conditions affecting the use of a block.

ABS - Abbreviation for Automatic Block Signal System.

BLOCK - A length of track of defined limits, the use of which is governed by block signals.

BLOCK RELEASE SWITCH - A track side electrical switch that the engineer operates to release a signal system when leaving a block.

BLOCK SIGNAL - A fixed signal that governs trains entering and using a block or provides for the proper spacing of trains.

CURRENT OF TRAFFIC - The movement of trains on a track, in one direction, specified by rules or special instructions.

DISTANT SIGNAL - A fixed signal outside of a block system used to govern the approach to a block or interlocking signal. It will not convey information as to conditions affecting the use of the track between the distant signal and block or interlocking signal to which approach is governed.

DOUBLE TRACK - Two main tracks, upon one of which the current of traffic is in a specified direction, and upon the other in the opposite direction.

ENGINE - A unit propelled by any form of energy, or a combination of such units operated from a single control, used in train or yard service.

EXTRA TRAIN - A train authorized by train order without a time table schedule. It may be designated as:

EXTRA - For any extra train, except a work extra;

WORK EXTRA - For an extra train authorized by Form H train order.

FIXED SIGNAL - A signal of fixed location indicating a condition affecting the movement of a train. Note: The definition of a "Fixed Signal" covers such signals as switch, train order, block, interlocking, distant, and such signs as stop signs, yard limit signs, and other means for displaying indications that govern the movement of a train.

FOULING POINT - The point on a track at which an engine or a car on the track will obstruct the passage of an engine or a car on a crossing or converging track.

INTERLOCKING - An arrangement of signals and signal appliances so interconnected that their movements must succeed each other in proper sequence. It may be operated manually or automatically.

INTERLOCKING, AUTOMATIC - An interlocking actuated automatically by the approach of a train.

INTERLOCKING, MANUAL - An interlocking operated by personnel by means of an interlocking machine.

INTERLOCKING LIMITS - The tracks between the opposing signals of an interlocking.

INTERLOCKING SIGNAL - A fixed signal which is controlled by an interlocking system. An interlocking signal may also function as a block signal.

MAIN TRACK - A track, other than an auxiliary track, extending through yards and between stations which must not be occupied without authority or protection.

MANUAL BLOCK SIGNAL SYSTEM - A block or a series of consecutive blocks, governed by block signals operated manually by block operators or train crew members. A manual block system may also include automatic functions actuated by a train, or engine, or by certain conditions affecting the use of a block.

MBS - Abbreviation for Manual Block Signal System.

MEDIUM SPEED - A speed that will provide for the safety and comfort of passengers and personnel and that will prevent damage to equipment and contents of cars as a train passes through locations such as: curved track, rough track, railway crossings, interlockings, the diverging route of a turnout, track where work is in progress, or other similar locations.

MS – Abbreviation for Medium Speed.

MEMBER- An individual who is a Member in good standing of the Lake Forest Live Steamers Railway Museum Incorporated.

MOVEMENT - The action of rail equipment traveling on track in one direction subject to the prescribed signals and rules, or special instructions.

MOVEMENT, SWITCHING - The action of rail equipment traveling on track first in one direction then reversing and moving in the opposite direction subject to the prescribed signals and rules, or special instructions and generally occurring within yard limits.

PASSENGER - An individual, either a Member or a Visitor, who is authorized to ride on a train car and does not participate in the operation or movement of trains, engines or rail equipment.

PERSONNEL – An individual, either a Member or Visitor, who is authorized to, and participates in, the operation or movement of trains, engines or rail equipment. The use of the words "personnel" or "duty" shall not in any way be understood as implying any form of employment relationship between a Member or Visitor and the Lake Forest Live Steamers Railway Museum Incorporated, nor shall it be understood as implying that a Visitor has any membership status in the Lake Forest Live Steamers Railway Museum Incorporated.

REGISTER STATION - A station at which a train register is located.

REGULAR TRAIN - A train authorized by time table schedule.

REDUCED SPEED - A speed that will permit stopping within the range of vision short of train, engine, car, stop signal, derail, obstruction or switch not properly lined.

RDS - Abbreviation for Reduced Speed.

RESTRICTED SPEED - A speed that will permit stopping within one-half the range of vision short of train, engine, car, stop signal, derail, obstruction, or switch not properly lined.

RS - Abbreviation for Restricted Speed.

RESTRICTED SPEED TRACK DEFECT - A speed that will permit stopping within one-half the range of vision short of train, engine, car, stop signal, derail, obstruction, or switch not properly lined, looking out for track defects that may require a train or engine to stop or to stop and then proceed at a speed such that movement over a track defect may be made without causing derailment.

RSTD - Abbreviation for Restricted Speed Track Defect.

RAIL EQUIPMENT - Engines, cars, one or more engines coupled to one or more cars, vehicles, equipment and devices that move on and are guided by the rails of track.

ROLLING EQUIPMENT - See Rail Equipment.

ROLLING STOCK - See Rail Equipment.

SCALE MILE - A distance of 660 actual feet.

SCALE MILES PER HOUR - The number of scale miles traveled per 1 real time hour. 660 actual feet traveled in 1 real time minute equals 60 scale miles per hour.

SCHEDULE - That part of a time table which prescribes class, direction, number and movement for a regular train.

SECTION - One of two or more trains running on the same schedule displaying signals or for which signals are displayed.

SIDING - A track auxiliary to the main track for meeting or passing trains.

SIDING SWITCH - A main track switch which connects a siding to the main track.

SIGNAL ASPECT - The appearance of a fixed signal conveying an indication as viewed from the direction of an approaching train.

SIGNAL INDICATION - The information conveyed by the by the aspect of a signal.

SIGNAL, IN ADVANCE OF - The section of track or an object located along the section of track occupied by a train that has passed a signal that governs its movement. A home signal is in advance of (not in the rear of) a distant signal.

SIGNAL, IN THE REAR OF - The section of track or an object located along the section of track occupied by a train before it has passed a signal that governs its movement. A distant signal is in the rear of (not in advance of) a home signal.

SINGLE TRACK - A main track upon which trains are operated in both directions.

SPECIAL INSTRUCTION - A mandatory directive issued by proper authority which affects the movement of engines or trains. Special instructions may be published as a single or multi page document or as part of a time table, or may be posted on bulletin boards.

SPECIAL INSTRUCTION, BULLETIN - A special instruction posted on bulletin boards. Special instructions posted on bulletin boards shall be respected the same whether with or without the word "bulletin" in the title.

SPECIAL INSTRUCTION, TIME TABLE - A special instruction published as part of a time table.

SPRING MOVABLE POINTS - A movable point crossing equipped with a spring mechanism arranged to restore the movable points to original position after having been trailed through.

SPRING SWITCH - A track switch equipped with a spring mechanism arranged to restore the switch points to original position after having been trailed through.

SPUR TRACK - A short stub end track.

SPUR TRACK SWITCH - A track switch which connects a spur track to any other track.

STATION - A place designated in the time table by name.

SUPERIOR TRAIN - A train having authority over another train.

SUPERIORITY BY RIGHT - A train given authority over another train by train order.

SUPERIORITY BY CLASS - A train given authority over another train by time table classification.

SUPERIORITY BY DIRECTION - A train given authority over another train in the direction specified by time table as between opposing trains of the same class.

SUPERIORITY BY TIME TABLE SPECIAL INSTRUCTION - A train given authority over another train as specified by time table special instruction.

TIME TABLE - The authority for the movement of regular trains subject to the rules. It contains the classified schedules of trains with special instructions relating to the movement of trains.

TRACK CIRCUIT, CONTINUOUS - A section of electrically isolated track, generally greater than ten actual feet in length, that when the wheels of engines or cars pass over completes an electrical circuit thereby causing the actuation of a signal system.

TRACK CIRCUIT, INTERMITTENT - A section of electrically isolated track, generally less than six inches in length, that when the wheels of engines or cars pass over completes an electrical circuit thereby causing the actuation of a signal system.

TRACK CIRCUIT, EXIT - An intermittent track circuit that engines or cars pass over when leaving a block or interlocking limits.

TRACK CIRCUIT CUT-OUT SWITCH - A track side electrical switch that, when operated, will break the electrical circuit of an associated intermittent track circuit.

TRAIN - An engine or more than one engine coupled, with or without cars, displaying a marker or markers.

TRAIN DISPATCHER - When used in the Transportation Rules and Special Instructions it shall be understood to be the train dispatcher on duty.

TRAIN ORDER - A mandatory directive prescribed by Rule 201, issued by the train dispatcher, which affects the movement of a train.

TRAIN REGISTER - A book or form used at designated stations for registering signals displayed, the time of arrival and departure of trains and such other information as may be prescribed.

VISITOR - An individual who is authorized to enter upon the facilities and is not a Member of the Lake Forest Live Steamers Railway Museum Incorporated.

YARD - A system of tracks within defined limits over which movements not authorized by time table, or by train order, may be made, subject to the prescribed signals and rules, or special instructions.

YARD ENGINE - An engine assigned to yard service and working within yard limits.

End of definitions.

TRANSPORTATION RULES

STANDARD TIME

1. The first train dispatcher upon beginning their period of duty for the day shall set non-radio controlled clocks designated as Railway Standard Time to correspond with the central standard time or central daylight time currently in effect at Chicago, Illinois.

1(A). The first train dispatcher upon beginning their period of duty for the day shall determine if radio controlled clocks designated as Railway Standard Time are indicating radio signal reception and synchronization with radio station WWVB has been achieved. If the indication is such that radio signal reception and synchronization with radio station WWVB has not been achieved, the radio controlled clock must be manually set as provided for by Rule 1 for non-radio controlled clocks and notation made on train crew bulletin board, thus: "Radio controlled clock OK", followed by the date and the initials of the train dispatcher manually setting the radio controlled clock.

2. All Members and Visitors of the LFLSRM authorized to participate in the operation and movement of rail equipment, all personnel in train, engine and yard service, and such other personnel as may be designated, must have and use, while on duty, a reliable watch that simultaneously displays hours, minutes and seconds. When such watches are found to vary more than 20 seconds from Railway Standard Time they must be set to correct Railway Standard Time.

3. The watches of the conductor, engineer and trainmen of a train must be compared with each other before leaving an initial station.

TIME TABLES

4. The number of the current time table in effect shall be posted on bulletin boards by the train dispatcher.

4(A). Personnel whose duties are in any way affected by the time table must, while on duty, have a copy of the current time table in effect in their possession, unless the current time table in effect has no schedules for regular trains.

5. Not more than two times are given for a train at any station; where one is given, it is, unless otherwise indicated, the leaving time; where two are given, they are the arriving and the leaving time.

Unless otherwise specified, the time applies at the siding switch where an inferior train clears a superior train; where there is no siding it applies to the place from which fixed signals are operated; where there is neither siding nor fixed signal, it applies to the place where traffic is received or discharged.

Schedule meeting or passing stations are indicated by figures in full-face type, with the numbers of the trains to be met, or passed, or that will pass and run ahead, in small figures, adjoining.

Both the arrival and leaving time of a train are in full-faced type when both are meeting or passing times, or when one or more trains are to meet or pass it between those times.

6. The following when adjoining the figures of the schedule indicate:

A - arrive;
s - regular stop;
f - flag stop.

HAND SIGNALS

7. Personnel whose duties may require them to give hand signals, must provide themselves with the proper appliances, keep them in good order and ready for immediate use.

7(A). Personnel in train, engine or yard service and others concerned must keep a constant lookout for hand signals. Personnel giving hand signals must locate themselves so as to be plainly seen, and give them so as to be plainly understood.

HAND, FLAG AND LANTERN SIGNALS

Note: The hand or a flag, moved the same as the lamp as illustrated in the following figures, gives the same indication.

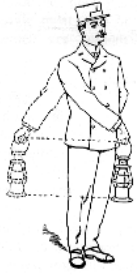


FIG. 1

8(a). Stop - Swung across the track.



FIG. 2

8(b). Reduce Speed - Held horizontally at arm's length, when the train is moving.



FIG. 3

8(c). Proceed - Raised and lowered vertically.



FIG. 4

8(d). Back - Swung vertically in a circle at half arm's length across the track.

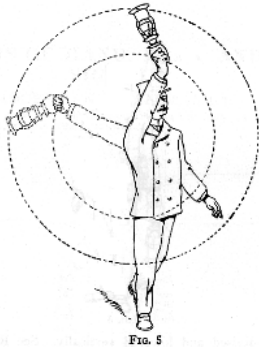


FIG. 5

8(e). Train Has Parted - Swung vertically in a circle at arm's length across the track.



FIG. 6

8(f). Apply Air Brakes - Swung horizontally above the head when the train is standing.



FIG. 6 (a)

8(g). Release Air Brakes - Held at arm's length above the head when the train is standing.

8(h). Any object waved violently by any person on or near the track must be respected as a signal to stop.

8(i). Signals 8(a) through 8(g) must be used for the purpose described. Other hand signals may be used providing they are understood by all personnel of the crew.

8(j). Radio communication may be used instead of hand signals to convey information.

ENGINE WHISTLE SIGNALS

15. The whistle must be sounded where required by rule or law.

When two or more engines are coupled together, the leading engine only will sound the whistle signals.

The intensity and duration of the sounding of whistle signals shall be regulated taking into consideration the distance and urgency for which the signal is to be conveyed.

The whistle signals prescribed are illustrated by "o" for short sounds; "-" for longer sounds.

- (a) o Apply brakes or wheel chocks.
- (b) - - Release brakes and remove wheel chocks.
- (c) - o o o Protect rear of train.
- (d) - - - - Flagman may return from west or south.
- (e) - - - - - Flagman may return from east or north.
- (f) o o o - Protect front of train.
- (g) o o Answer to 15(k) or any signal not otherwise provided for.
- (h) o o o When standing, back; Answer to 8(d) and 16(c). When running answer to 16(d).
- (j) o o o o Call for signals.
- (k) - o o To call attention of engine and train crews to signals displayed for a following section. If not answered by an engine or train, the train displaying signals must stop and notify them.
- (l) - - o - Approaching public crossings at grade and curves where view is obscured. When approaching public crossings at grade signal must begin not less than 4 seconds before reaching crossing. To be prolonged or repeated until crossing is occupied by engine or cars. When whistle sign is displayed, signal must begin before reaching sign. This signal must also be used frequently to warn track crews, and when approaching tunnels.
- (m) Extra long sound. Approaching railway crossings at grade. Signal must not be sounded until it has been ascertained that it is safe to proceed over the crossing. See Rule 98. Crossing must not be occupied unless signal has been sounded for not less than 3 seconds. To be prolonged until crossing is occupied by engine or cars if required to call attention of other trains or engines.
- (n) - - o Approaching meeting, waiting or passing points. Answer to 16(l). See Rule 90(A).
- (o) Succession of short sounds. When it is necessary to use engine whistle to call for brakes to be applied on moving train or cars, or when necessary to use engine whistle to signal some other movement to stop.

COMMUNICATING SIGNALS

16. The conductor of a train carrying passengers must have a communicating whistle used to signal the engineer.

The signals prescribed are illustrated by "o" for short sounds; "-" for longer sounds.

- (a) o o When standing, start.
- (b) Extra long sound, When running, stop at once.

- (c) o o o When standing, back.
- (d) o o o When running, stop at next passenger station.
- (l) o - When running, approaching meeting, waiting or passing points. See Rule 90(A).

HEADLIGHTS

17. The headlight must be displayed to the front of trains by night and at any time the view is obscured by storm or fog and while passing through tunnels and snowsheds. It must be extinguished or concealed when a train has stopped clear of the track to be used by an opposing train, or is standing to meet a train at the end of double or three or more tracks or a junction, and the switches are properly lined.

When an engine is running backward, a white light must be displayed by night on the rear of the tender.

If the head light fails, a white light must immediately be used in its place.

18. Yard engines must display the headlight to the front and rear by night. Yard engines will not display markers.

MARKERS AND REAR END LIGHTS

19. A marker or markers must be displayed at the rear of every train and may consist of the following signals: by day, marker lamps (not lighted), red flags, or red lights to the rear; by night, red lights to the rear.

CLASSIFICATION SIGNALS

20. All sections except the last must display two green flags and, in addition, two green lights by night, in the places provided for that purpose on the front of the engine. See Rules 15(g) and 15(k).

21. Extra trains must display two white flags and, in addition, two white lights by night, in the places provided for that purpose on the front of the engine.

21(A). On portions of the railway so specified in the time table or by special instructions, the display of white flags and white lights, as prescribed by Rule 21, may be omitted on designated extra trains.

22. When two or more engines are coupled together, each engine must display the signals as prescribed by Rules 20 and 21.

23. One flag or light displayed where in Rules 20 and 21 two are prescribed will indicate the same as two; but the proper display of all train signals is required.

24. When cars are pushed by an engine, except when shifting or making up trains in yards, a white light must be displayed on the front of the leading car by night.

TRAIN SIGNALS

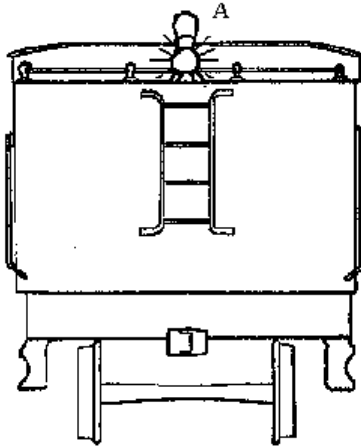


Fig. 1. - Running backward by night, without cars or at the front of a train pulling cars. White light at A.

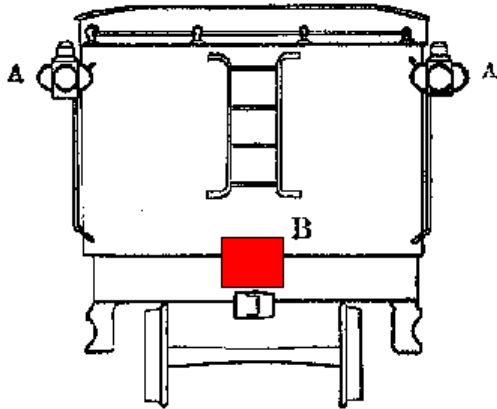


Fig. 2. - Running forward by day, without cars or at the rear of a train pushing cars. Marker lamps not lighted at A A as markers, or red flag at B as marker, or (not illustrated) red flags at A A, or red lights to the rear, as markers.

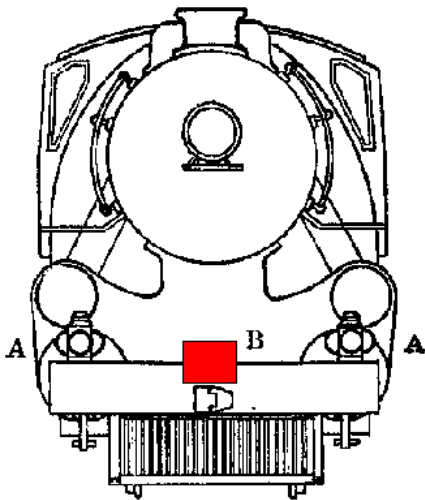


Fig. 3. - Running backward by day, without cars or at the rear of a train pushing cars. Marker lamps not lighted at A A as markers, or red flag at B as marker, or (not illustrated) red flags at A A, or red lights showing in the opposite direction the engine is moving, as markers.

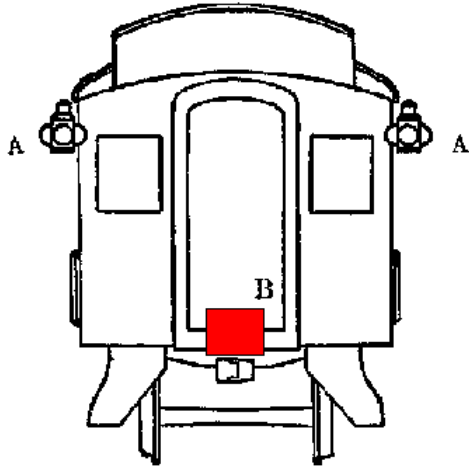


Fig. 4. - Rear of train by day. Marker lamps not lighted at A A as markers, or red flag at B as marker, or (not illustrated) red flags at A A, or red lights to the rear, as markers.

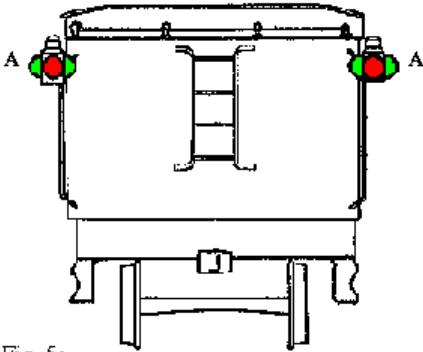


Fig. 5a.

Fig. 5a. - Running forward by night, without cars or at the rear of a train pushing cars. Lights at A A as markers, showing red to the rear and, if equipped, showing green to the front and side.

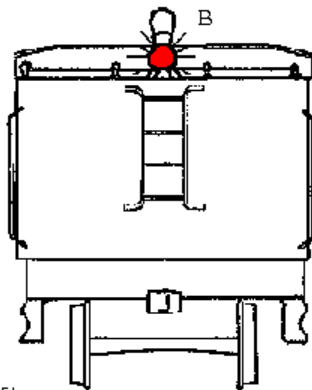


Fig. 5b.

Fig. 5b. - Running forward by night, without cars or at the rear of a train pushing cars. Red light at B.

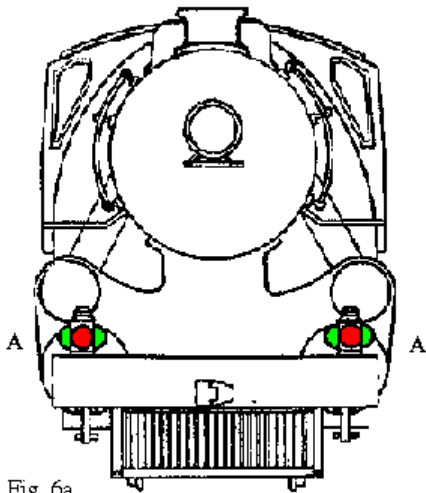


Fig. 6a.

Fig. 6a. - Running backward by night, without cars or at the rear of a train pushing cars. Lights at A A as markers, showing red in the opposite direction the engine is moving and, if equipped, green to the side and in the direction the engine is moving.

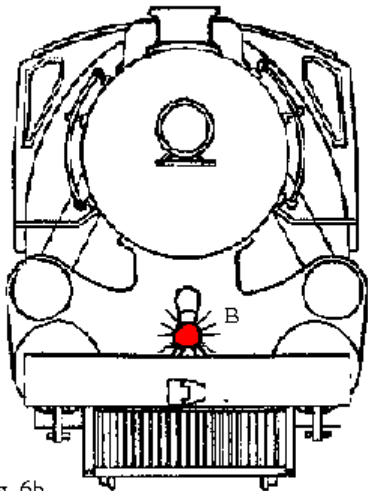


Fig. 6b.

Fig. 6b. - Running backward by night, without cars or at the rear of a train pushing cars. Red light at B.

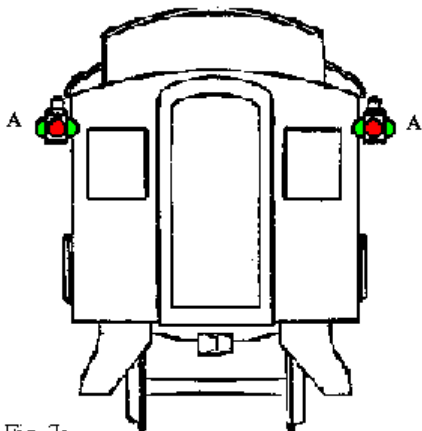


Fig. 7a.

Fig. 7a. - Rear of train by night. Lights at A A as markers, showing red to the rear and, if equipped, showing green to the front and side.

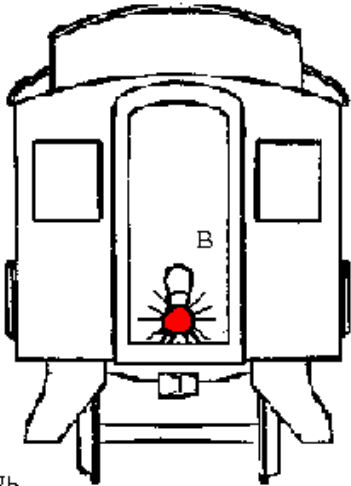


Fig. 7b.

Fig. 7b. - Rear of train by night. Red light at B.

Note: Figure numbers 8, 9, 10 and 11 are not used.

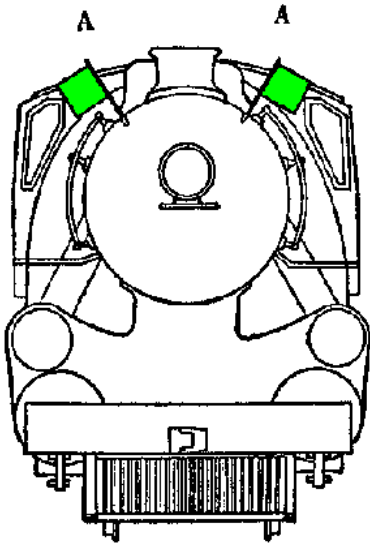


Fig. 12. - Running forward by day displaying signals for a following section. Green flags at A A.

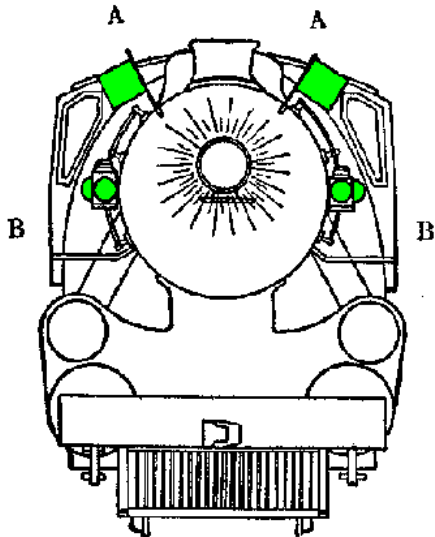


Fig. 13. - Running forward by night displaying signals for a following section. Green flags at A A and green lights at B B or A A.

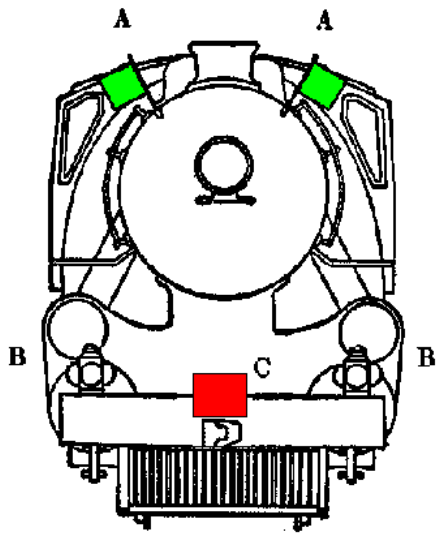


Fig. 14. - Running backward by day, without cars or at the rear of a train pushing cars, and displaying signals for a following section. Green flags at A A. Marker lamps not lighted at B B as markers, or red flag at C as marker, or (not illustrated) red flags at B B, or red lights showing in the opposite direction the engine is moving, as markers.

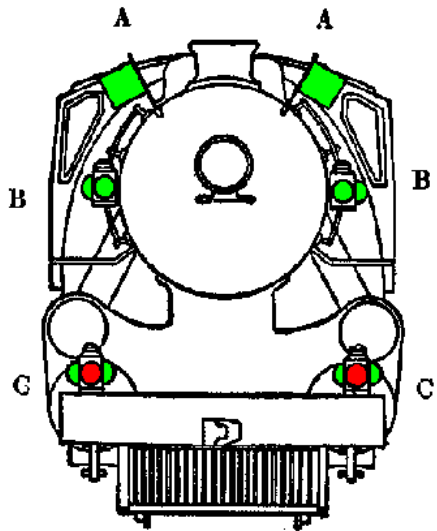


Fig. 15. - Running backward by night, without cars or at the rear of a train pushing cars, and displaying signals for a following section. Green flags at A A. Green lights at B B or A A. Lights at C C as markers, showing red in the opposite direction the engine is moving and, if equipped, showing green to side and in the direction engine is moving. One red light as in Fig. 6b may be used instead of lights at C C.

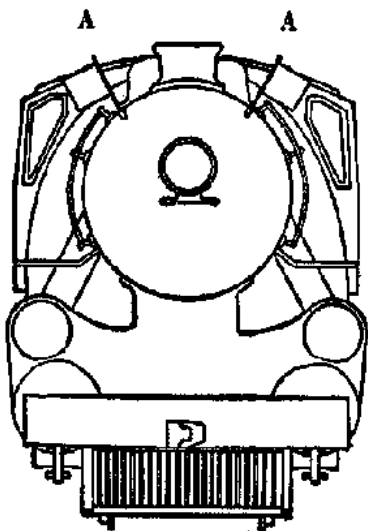


Fig. 16. - Running forward by day as an extra train. White flags at A A.

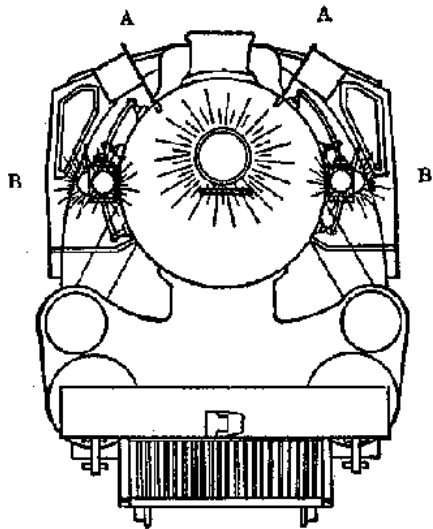


Fig. 17. - Running forward by night as an extra train. White flags at A A and white lights at B B or A A.

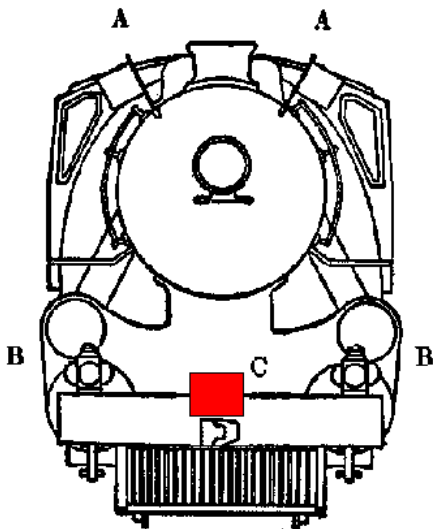


Fig. 18. - Running backward by day as an extra train, without cars or at the rear of a train pushing cars. White flags at A A. Marker lamps not lighted at B B as markers, or red flag at C as marker, or (not illustrated) red flags at B B, or red lights showing in the opposite direction the engine is moving, as markers.

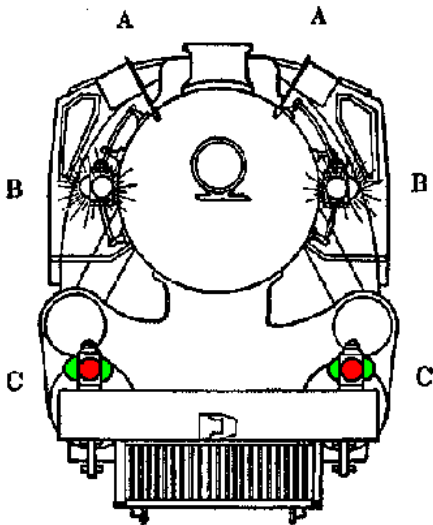


Fig. 19. - Running backward by night as an extra train, without cars or at the rear of a train pushing cars. White flags at A A. White lights at B B or A A. Lights at C C as markers, showing red in the opposite direction the engine is moving and, if equipped, green to the side and in the direction the engine is moving. One red light as in Fig. 6b may be used instead of lights at C C.

BLUE SIGNAL PROTECTION OF WORKMEN

26. A blue signal displayed on an engine, car or train, indicates that workmen are under or about it or that it is not safe to move; when equipment is thus protected it must not be coupled to or moved.

Workmen must display the blue signal before commencing work on equipment and the same workmen are alone authorized to remove the blue signal.

USE OF SIGNALS

27. A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually displayed, must be regarded as the most restrictive indication that can be displayed by that signal.

28. A white signal, or a green and white signal, will be used to stop a train only at the flag stations indicated on its schedule. When it is necessary to stop a train at a point that is not a flag station on its schedule a red signal must be used.

29. When a signal, except a fixed signal, is given to stop a train, it must, unless otherwise provided, be acknowledged as prescribed by Rule 15(g) or (h).

31. The engine whistle must be sounded at all places when required by rule or by law, or to prevent accident.

34. The engineer and other members of the train crew must, when practicable, communicate to each other the name of the indication or the aspect of all signals affecting the movement of their train.

35. The following signals will be used by flagmen:

Day signals - A yellow flag.

Night signals - A red light, a yellow light and a yellow flag.

36. When the use of a flag is designated, the use of a metal sign of the same color as the flag may be used instead.

SUPERIORITY OF TRAINS

71. A train is superior to another train by right, class, direction or time table special instruction.

Superiority by right is conferred by train order, superiority by class, direction, or time table special instruction is conferred by time table.

Right is superior to class, direction or time table special instruction.

Time table special instruction is superior to class or direction.

72. Trains of the first class are superior to those of the second; trains of the second class are superior to those of the third; and so on.

Trains in the direction specified in the time table are superior to trains of the same class in the opposite direction.

73. Extra trains are inferior to regular trains.

MOVEMENT OF TRAINS

81. A main track must not be fouled or occupied without authority granted by rule or by special instruction, time table authority, or train order authority, unless protected as prescribed by Rule 99.

82. Time table schedules, unless fulfilled or annulled, are in effect for twelve hours after their time at each station.

Regular trains more than twelve hours behind either their schedule arriving or leaving time at any station lose both right and schedule, and can thereafter proceed only as authorized by train order.

83. A train must not leave its initial station, or an intermediate station where schedules originate or terminate, or a junction, or pass from double or three or more tracks to single track, until it has been ascertained whether all trains due, which are superior, have arrived or left.

83(A). Unless otherwise provided, conductors of all trains, and engineers of trains without conductors, must register their trains on the train register at points designated by special instruction.

The number of a section of a regular train must be spelled out on train orders, clearances, train registers and register tickets.

When an extra train is registered, the word "Extra" or the abbreviation "EXA" must be inserted in column of train register captioned "Train No.".

When an extra train is registered, the train order number authorizing the extra train or other designated information must be inserted in column of train register captioned "Signals", instead of the word "White".

83(B). Before leaving a register station at which it is necessary for the conductor to check the train register, the engineer must receive from the conductor a check of the register on prescribed form.

83(C). A train register must not be used as evidence of the arrival or departure of an extra train, except as provided by train order.

83(D). Authority for regular trains to assume their schedule will be by Clearance Card Form A, Engine Assignment posted on bulletin boards or authority from the train dispatcher.

84. A train must not start until the proper signal is given.

85. Trains of one schedule may pass trains of another schedule of the same class, and extra trains may pass regular trains and extra trains.

A section may pass another section of the same schedule, first exchanging train orders, signals and numbers with the section to be passed. The train dispatcher must be notified as soon as possible of the change.

86. Unless otherwise provided, an inferior train must be clear at the time a superior train in the same direction is due to leave the next station in the rear where time is shown.

87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected at that time as prescribed by Rule 99.

Extra trains must clear the time of opposing regular trains not less than one minute unless otherwise provided, and will be governed by train orders with respect to opposing extra trains.

88. At meeting points between regular trains, the inferior train must clear the main track one minute before the leaving time of the superior train.

At meeting points between extra trains, the eastward extra train must take the siding unless otherwise provided.

Trains must pull into a siding when practicable; if necessary to back in, the train must first be protected as prescribed by Rule 99, unless otherwise provided.

88(A). At meeting and passing points, when conditions and circumstances are such that delays will be avoided by the superior train taking siding, it must be done. Conductors and engineers are expected to exercise judgment and discretion in this respect, and see that extra precautions are taken to avoid collision. Application of Rule 88(A) shall supersede provisions of rules, special instructions or train orders inconsistent therewith.

89. Necessary identification of trains must be made at meeting points and passing points.

90. Trains and engines must stop before siding switches, unless the switch is properly lined, the points are seen to fit and the track is seen to be clear.

90(A). When a train carrying passengers approaches a meeting, waiting or passing point, the conductor must sound signal 16(l) not less than one-half scale mile (330 actual feet) from the point of restriction and the engineer must answer by signal 15(n). When a freight train approaches a meeting, waiting or passing point, the engineer must sound signal 15(n) not less than one-half scale mile (330 actual feet) from the point of restriction. If the engineer fails to act to comply with the restriction, train crew members must take immediate action to stop the train.

91. Unless some form of block signals is used, trains in the same direction must keep not less than two minutes apart, except when proceeding at reduced speed to close up behind a standing or slowly moving train.

92. A train must not leave a station in advance of its schedule leaving time.

93. Yard limits will be indicated by track side signs or track markers or designated by special instructions. Within yard limits the main track may be occupied, clearing first class trains when due to leave the last station where time is shown. Protection against second and third class trains, and extra trains and engines is not required.

In case of failure to clear the time of first class trains, protection must be provided as prescribed by Rule 99.

Second and third class trains, and extra trains and engines must move at restricted speed on main tracks within yard limits prepared to stop within one-half the range of vision short of train, engine, car, stop signal, derail, obstruction or switch not properly lined.

All trains and engines must move at restricted speed on yard tracks, sidings, wye tracks, spur tracks and other tracks not designated as main tracks prepared to stop within one-half the range of vision short of train, engine, car, stop signal, derail, obstruction or switch not properly lined.

94. A train which overtakes another train so disabled that it cannot proceed will pass it, if practicable, and if necessary will assume the schedule and take the train orders of the disabled train. The disabled train will assume the right or schedule and take the train orders of the last train with which it has exchanged and, when able, will proceed. The train dispatcher must be notified as soon as possible of the change.

When a train, unable to proceed against the right or schedule of an opposing train, is overtaken between communicating stations by a train having right or schedule which permits it to proceed, the delayed train may, after proper understanding with the following train, precede it. When opposing trains are met under these circumstances, it must be fully explained to them by the leading train that the expected train is following. The train dispatcher must be notified as soon as possible.

95. When authorized by the train dispatcher, two or more sections may be run on the same schedule. Each section has equal time table authority. See Rules 15(g), 15(k) and 20.

96. When signals are displayed for a section, they must not be taken down at any point, unless the section for which signals are displayed has arrived or the fact that signals were displayed has been recorded on the train register.

97. Unless otherwise provided, extra trains must be authorized by train orders.

98. Trains and engines must stop before the end of double or three or more tracks, junctions, railway crossings, and drawbridges, unless signals indicate proceed, or, where proceed signals cannot be displayed, the switches are properly lined and it has been ascertained that it is safe to proceed. See Rule 15(m).

99. When a train stops under circumstances in which it may be overtaken by another train, protection must be provided by a train crew member who must act as a flagman and go back immediately with flagman's signals a distance of not less than one-quarter scale mile (165 actual feet), the distance increased for descending grades and weather conditions, and until the flagman's view of an approaching train is unobstructed for not less than one-eighth scale mile (83 actual feet) beyond, and place a yellow signal consisting of a yellow flag and, in addition, a yellow light by night, on the side of the track that will be visible to and not obstruct an approaching train. After placing the yellow signal the flagman may return one-half the distance to the train. When recalled and safety to the train will permit, the flagman may return.

When the engineer is acting as the flagman, after placing the yellow signal and safety to the train will permit, the engineer may return to the engine.

The front of the train must be protected in the same way when necessary.

When a train is moving under circumstances in which it may be overtaken by another train, protection must be provided by a train crew member who must act as a flagman and take such action as may be necessary to insure full protection. When the view of an approaching train is obscured, yellow signals consisting of a yellow flag and, in addition, a yellow light by night, must be placed at proper intervals on the side of the track that will be visible to and not obstruct an approaching train.

When flags cannot be plainly seen, lanterns or lights must be used. Conductors and engineers are responsible for the protection of their trains.

Flagman's signals must not be placed between parallel tracks, unless it cannot be avoided.

The placement of flagman's signals must be such that provides for the maximum straight sighting distance of the signal as viewed from an approaching train.

An engineer seeing a yellow flag or yellow light near the side of the track will at once bring their train under control and then for a distance of one-half scale mile (330 actual feet) beyond the yellow signal will proceed at reduced speed. Failing to find a flagman or obstructions within the distance of one-half scale mile (330 actual feet) they will assume that track is clear and resume usual speed.

The engineer or conductor of a train upon passing a yellow signal placed on the side of the track their train is operating on will retrieve the yellow signal.

When a flagman is sent ahead to protect the movement of a train, extra precautions must be taken to see that a sufficient distance is maintained between the flagman and the train to insure safety.

When a train has been flagged, the flagman, if present, must inform the engineer why the train has been flagged and the engineer must be governed by conditions.

When a flagman is sent out with instructions affecting the authority of a train, such instructions must be in writing if circumstances will permit.

When a flagman is sent to a station on a train with instructions affecting the authority of a train, the flagman will ride on the head end of the train, and the engineer must stop and let the flagman off at the first switch.

101. Trains must be fully protected against any known condition which interferes with their safe passage at normal speed.

102. If a train should part while in motion, crew members must, if possible, prevent damage to the detached portions.

The detached portion must not be moved or passed until the front portion comes back, except under full protection.

103. When cars are pushed by an engine and conditions require, a crew member must precede the movement.

104. Unless otherwise provided, the normal position of a main track switch is for the main track and it must be lined in that position except when changed for immediate movement.

Conductors are responsible for the position of switches used by them and their train crews, except where switchtenders are stationed. Switches must be properly lined after having been used.

The engineer must see that switches near the engine are properly lined.

Personnel handling switches must know that the switches are properly lined for the movement to be made and that the switch points fit.

A switch must not be left reversed from its normal position for a following train unless in charge of a crew member of such train.

Unless otherwise required by circumstances, personnel discovering a switch unattended and reversed from normal position must restore it to normal position.

When a train, engine or car is closely approaching or passing over a switch, personnel must keep not less than three actual feet from the switch stand or operating mechanism of the switch and, when practicable, must stand on the opposite side of the track.

Except when changed to permit movement, derails must be set in derailing position.

104(A). A train stopping on a spring switch while trailing through and actuating the switch points, must not make a reverse movement until the switch has been operated by hand and it is known that the switch points are in proper position for safe movement.

105. Main tracks of an assigned direction outside of yard limits must not be used in a reverse direction unless authorized by train order or by special instructions, or under flag protection as prescribed by Rule 99.

106. Both the conductor and engineer are responsible for the safety of the train and the observance of the rules, and, under conditions not provided for by the rules, must take every precaution for protection.

107. When a passenger train is receiving or discharging traffic on the side toward a station, a train must not pass between it and the station unless proper safe guards are provided.

108. In case of doubt or uncertainty, the safe course must be taken.

SLOW SPEED ZONE RULES

161. A combination red and yellow flag and, in addition, a yellow light by night, placed on the side of the track, indicates that the track about one-eighth scale mile (83 actual feet) beyond is in condition for speed of not more than ten scale miles per hour, unless otherwise specified by train order or by special instructions.

162. A green flag and, in addition, a green light by night, placed on the side of the track, indicates that the end of reduced speed territory.

163. The entire train must pass over the designated territory at a speed of not more than ten scale miles per hour, unless otherwise specified by train order or by special instructions,

164. The signals prescribed by Rules 161 and 162 must not be placed between parallel tracks.

RULES FOR MOVEMENT BY TRAIN ORDERS

201. For movements not provided for by time table, train orders will be issued by authority and over the signature of the train dispatcher and only contain information or instructions essential to such movements.

They must be brief and clear; in the prescribed forms when applicable; and without erasure, alteration or interlineation.

Figures in train orders must not be surrounded by brackets, circles or other characters.

202. Each train order must be given in the same words to all personnel or trains addressed.

203. Unless otherwise provided, each train order must be numbered consecutively each day, beginning at midnight.

204. Train orders must be addressed to those who are to execute them, naming the place at which each is to receive their copy. Those for a train must be addressed to the conductor and engineer, and also to anyone who acts as pilot. Unless otherwise directed, a copy for all personnel addressed must be supplied by the operator. Train orders addressed to operators restricting the movement of trains must be respected by conductors and engineers the same as if addressed to them.

All members of the train crew must have a thorough understanding of train orders affecting their train.

205. Unless otherwise provided, each train order must be written in full in a book provided for the purpose at the office of the train dispatcher; and with it recorded the time and the signals which show when, from what offices and by whom the train order was repeated and the responses transmitted; and the train dispatcher's initials. These records must be made at once and never from memory or memoranda.

205(A). Additions to train orders must not be made after they have been repeated.

206. In train orders and clearances, regular trains will be designated by numbers as "No. 10", and sections as "First 10"; "Second 10"; and so on, adding engine numbers in train orders if desired. Extra trains, except work extras, will be designated by engine numbers and the direction as "Extra 798 east". Work extras will be designated by engine numbers, as "Work extra 798".

When a regular train has two or more engines coupled, and a designation is made by engine numbers, the number of the leading engine will be used in train orders. When helper engines or other engines are placed on the head end or rear end of a regular train over a portion of the railway, the road engine number will be used.

When an extra train has two or more engines coupled, the numbers of the engines will be used in train orders, thus: "Extra 284 and 308 coupled west". When helper engines or other engines are placed on the head end or rear end of an extra train over a portion of the railway, the helper engine number or numbers will not be included in the designation of the extra train.

When a work extra has two or more engines coupled, the numbers of the engines will be used in train orders, thus: "Work extra 81 and 442 coupled".

Even hours as "10 00 A.M." must not be used in stating time in train orders.

In transmitting train orders time may be stated in figures only or duplicated in words.

In transmitting train orders by voice, the numbers of trains and engines in the address may be pronounced and then spelled, letter by letter if so desired. All stations and numerals in the body of a train order must first be plainly pronounced and then spelled, letter by letter thus: Aurora, A-u-r-o-r-a, and One Zero Five, O-n-e Z-e-r-o F-i-v-e.

The letters duplicating names of stations and numerals will not be written in the train order book nor upon train orders, except time, which may be duplicated in words.

Unless otherwise provided, when train orders are transmitted by voice, the train dispatcher must write the train order as it is transmitted and underscore each word and figure as repeated by each operator.

207. To transmit a train order, the train dispatcher must instruct each station addressed the position and direction in which the train order signal is to be displayed and the number of copies to be made, thus: "Roundabout stop east copy 3", or "Chester 19 west copy 4". At stations where there is a train order signal, an operator receiving these instructions must immediately display the train order signal as directed for the direction specified, and reply, thus: "Roundabout stop displayed east", or "Chester 19 displayed west". The train order signal must not be restored to "Proceed" unless the train order has been delivered to all personnel addressed and all trains receiving the train order have passed the train order signal, or the train order has been annulled.

When the responses of the operators indicate that the train order signals are properly displayed, the train dispatcher may transmit the train order, thus: "Train order No. 8, to Roundabout C&E No. 124, to Chester C&E Extra 284 and 308 coupled west, (and so on), period, No. 124 Eng. 326 wait at Roundabout until 1248 PM for Extra 284 and 308 coupled west, signed (train dispatchers initials)". The use of the word "period" when transmitting a train order shall indicate the conclusion of the list of addresses of the train order and the beginning of the body of the train order. The word "period" will not be written in the train order book nor upon train orders and will not be repeated.

207(A). When a train order has been transmitted operators must, unless otherwise directed, repeat it at once from the manifold copy, in the succession in which the several stations have been addressed. Each operator receiving the train order must observe whether the others repeat correctly.

When a train order has been repeated correctly, the train dispatcher will respond, thus: "(station), complete, (the time), (train dispatcher's initials)". The operator receiving this response will then write in the space provided on the train order, the time and their last name in full and reply, thus: "(station), complete, (operator's initials)", and, unless otherwise directed, must deliver a copy of the train order to each person addressed.

208. A train order to be sent to two or more stations must be transmitted simultaneously to as many of them as practicable. When sent simultaneously to all, the train order must be addressed first to the train being restricted and then to other trains. When not sent simultaneously to all, the train order must be sent first to the train being restricted.

Except at initial stations, a train order must not be issued for a train at the point where its movement is restricted if it can be avoided. When so sent, except at initial stations, the fact must be stated in the train order, thus: "No. 359 Eng. 81 gets this order at Kendahl". The train being restricted must be brought to a stop before the train dispatcher OK's the clearance and special precautions must be taken to insure safety.

209. Operators receiving train orders must write or typewrite them in manifold on Train Order Form 19 during transmission. Train dispatcher's signature (initials) must be placed directly under the last word of the order. They must retain a copy of each train order.

If the requisite number of copies cannot be made at one writing, they must make others from the original copy and repeat to the train dispatcher from the new copies each time additional copies are made.

212 After transmitting a train order, the train dispatcher may instruct an operator not to repeat the train order by responding, thus: "to, (station), X, (train dispatcher's initials)". The operator must acknowledge this response by replying, thus: "(station), (number of train order), to, (train number), X, (operator's initials)". The operator must then write or typewrite in the space provided on the train order their initials and the time.

213. "Complete" must not be given to a train order for delivery to other trains until the train order has been repeated or the "X" response sent by the operator who receives the train order for the train being restricted.

214. When a train order has been repeated, including the signature of the train dispatcher, or "X" response sent, and before "complete" has been given, the train addressed must be held until the train order is made complete.

If means of communication fails before a train order has been repeated, or the "X" response sent, the train order at that station is of no effect and must be destroyed.

214(A). When an error is made in transmitting a train order and before it has been repeated, all copies of that train order must be destroyed, the train order marked "void" in the train order book, and if reissued, given another number. If a train order in which an error has been made has been repeated, that train order must be annulled.

216. When the dispatcher issues a train order that is to be delivered to a train by the train dispatcher, a manifold copy of the train order must immediately be pasted in the train order book. If later the train order is to be sent to another station, it must be transmitted from the copy in the train order book. The requirements for the delivery of train orders and clearances are the same as at other stations.

217. A train order to be delivered to a train at a point not a train order office, or at which the office is closed, must be addressed to "C&E _____ at (or between) _____ care of _____", and forwarded and delivered with Clearance Card Form A by the person in whose care it is addressed, and who is responsible for its delivery.

When delivery is to be made by conductor or engineer of another train, the numbers of such train orders must be shown in the usual manner on Clearance Card Form A of the train making delivery. If necessary, train must be stopped to effect delivery.

A train order restricting the movement of a train must not be sent to it in this manner if it can be avoided. When so sent, the fact must be stated in the train order, thus: "This order restricts No. 359 Eng. 81", in addition, a yellow colored Form 19 train order blank must be used for all copies of the train order, and the train order must be placed first under the Clearance Card Form A of the train making delivery.

218. When a train is named in a train order by its schedule number alone, all sections of that schedule are included, and each must have copies delivered to it.

219. An operator must not repeat or give the "X" response to a train order that restricts the movement of a work extra, or requires a work extra to protect against other trains, after the work extra has received its work order, or that restricts the movement of a train which has received Clearance Card Form A at that station or of which has passed the train order signal indicating "Proceed", until the operator has obtained the signature of the conductor and engineer to the train order.

219(A). The train dispatcher must take extra precautions and, if necessary, provide additional instructions to ensure compliance with provisions of Rule 219.

220. The operator must fill out Clearance Card Form A before clearing a train, showing thereon, without erasure or alteration, the date, station, address, total number or train orders, (if none show "No") and the number of each train order, if any, and transmit to the train dispatcher the information shown on Clearance Card Form A, thus: "Kendahl, clear No. 317 with 3 orders numbers 1, 2, and 3", or if no orders, thus: "Kendahl, clear No. 317 with no orders". The train dispatcher must make the required record in the train order book and check the train order numbers, if any, and if correct will respond in the same manner, adding "OK", the time and the train dispatchers initials, which the operator will endorse in writing on Clearance Card Form A, adding the operators last name in full.

Operators must not issue Clearance Card Form A to a train unless the "OK" has been received from the train dispatcher.

Operators must make the required number of copies of Clearance Card Form A at one writing, and retain a copy.

Clearance Card Form A must be included together with all train orders delivered.

Conductors and engineers must, and when practicable trainmen will, see that the information shown on Clearance Card Form A corresponds with the train orders received.

220(A). If necessary to issue a second Clearance Card Form A, the original Clearance Card Form A must be destroyed, and the second Clearance Card Form A must show the numbers of all train orders addressed to the train.

220(B). A message, or the number of messages, for a train may be included on Clearance Card Form A in the space provided. Messages must not contain information affecting the authority of a train or engine to occupy a track. Unless otherwise directed, information concerning messages will not be repeated.

221. Train orders once in effect continue so until fulfilled, superseded or annulled. Any part of a train order specifying a particular movement may be superseded or annulled. Train orders held by or issued for a regular train become void when such train loses both right and schedule as prescribed by Rule 82, or is annulled.

221(A). Train orders annulling a schedule or a section, run late orders, or slow and cautionary orders issued to a conductor or engineer continue in effect to them on a continuous trip or tour of duty.

222. Where provided, signals of the types as indicated in Rule 225 will be used at stations where trains are to receive train orders. Unless otherwise provided, when there are no train orders, train order signal must indicate "Proceed".

When a train order signal displays "Stop" or "19 order" indication, trains must not leave that station without Clearance Card Form A.

Operators must have proper appliances for hand signaling and will use these hand signals should the fixed signals fail to operate properly, or when other conditions require.

223. Operators must promptly record and report to the train dispatcher the time of arrival and departure of all trains and the direction of extra trains.

They must observe trains and report at once to the train dispatcher if proper signals are not displayed.

224. The following signals and abbreviations may be used:

Initials for the signature of the train dispatcher and other railway officers;

Such office and other signals as are arranged by the chief train dispatcher;

The usual abbreviations for the names of the months and stations;

ABS - Automatic Block Signal System;

C&E - Conductor and Engineer;

Com - Complete;

Condr - Conductor;

Dispr - Dispatcher;

Divn - Division;

DT - Double track;

Eng - Engine;

Engr - Engineer;

EWD - Eastward;

Exa - Extra;

Frt - Freight;

Jct - Junction;

Mins - Minutes;

MBS - Manual Block Signal System;

MT - Main Track;

ND - Not displayed;

No - Number;

OK - Correct;

Opr - Operator;

Orig - Originating;

OS - Train Report;

Psg - Passenger;

SD - "Stop" Displayed;
 19D - "19 Order" Displayed;
 SMP - Scale Mile Post;
 SMPH - Scale Miles Per Hour;
 Supt - Superintendent;
 WWD - Westward;
 X - Train will be held until train order is made complete;
 YM - Yardmaster.

TRAIN ORDER SIGNALS

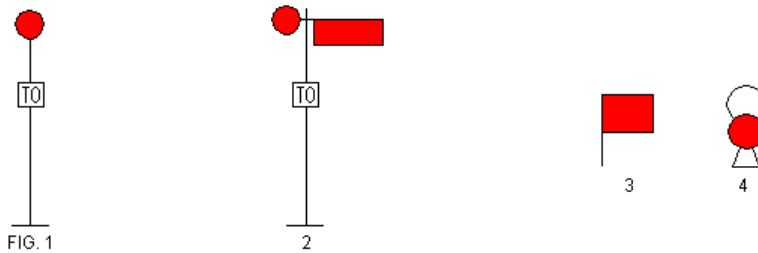
Rule 225A.

Name: STOP SIGNAL.

Indication: Stop for train orders.

Note: T.O. letter plate will be omitted when signal is attached to train order office.

RULE 225A ASPECTS



Rule 225B.

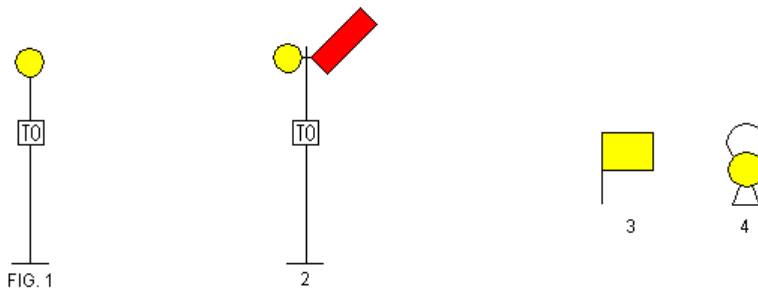
Name: 19 ORDER SIGNAL.

Indication: Proceed under clearance or train order and clearance.

Note: T.O. letter plate will be omitted when signal is attached to train order office.

Note: Flag or lantern signals must be placed so as not to be confused with flagman's signals.

RULE 225B ASPECTS

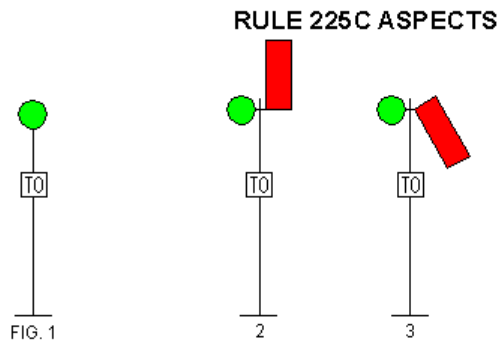


Rule 225C.

Name: CLEAR TRAIN ORDER SIGNAL.

Indication: Proceed, no train orders.


Note: T.O. letter plate will be omitted when signal is attached to train order office.



FORMS OF TRAIN ORDERS

Note: Examples of the wording of a train order are shown in full-face type preceded by the example number in parenthesis. The rules which govern a train receiving such a train order are shown in normal type. In the following examples eastward regular trains are given even train numbers and westward regular trains are given odd train numbers. The relative locations of the stations named in the examples is shown below:

Critchley - Roundabout - Saville - Williams - Chester - Kendahl – Deerfield

EASTWARD
Even Regular
Train Nos. 

 WESTWARD
Odd Regular
Train Nos.

A.

FIXING MEETING POINTS FOR OPPOSING TRAINS

- (1a) **No 1 meet No 2 at Saville**
- (1b) **No 3 meet Second 4 at Saville**
- (1c) **No 5 meet Extra 95 east at Saville**
- (1d) **Extra 442 west meet Extra 284 and 308 coupled east at Saville**
- (2a) **No 2 and Second 4 meet No 1 and No 3 at Roundabout and Extra 95 west at Saville (and so on)**
- (2b) **No 1 meet No 2 at Kendahl Second 4 at Chester and Extra 95 east at Saville**

These examples may be modified by adding " _____ take siding".

The trains named in such orders will meet at the designated points in the manner prescribed by the rules or special instructions.

B.

AUTHORIZING A TRAIN TO PASS OR RUN AHEAD OF A SUPERIOR TRAIN

- (1) **No 253 pass No 3 at Chester**

No. 253 is authorized to pass No. 3 at Chester and to run ahead of No. 3 from Chester.

Unless otherwise provided, the train to be passed will take siding.

- (2) **Extra 194 east run ahead of No 6 Roundabout to Kendahl**

Extra 194 east may run ahead of No. 6 between the designated points.

Under these examples the train authorized to run ahead must be protected, if necessary, as prescribed by Rule 99.

If a train is delayed after receiving authority to run ahead of a superior train, the train may allow the superior train to pass, and the train order must then be considered fulfilled. The train dispatcher must be notified as soon as possible.

C.

GIVING RIGHT OVER AN OPPOSING TRAIN

(1) No 45 has right over No 2 Kendahl to Saville

If No. 2 reaches Saville before No. 45 arrives, No. 2 may proceed, clearing the time of No. 45 not less than one minute.

(2) Extra 37 east has right over No 3 Roundabout to Chester

No. 3 must not go beyond Chester until Extra 37 east arrives unless authorized by train order to do so.

These orders give right to the train first-named over the other train between the designated points.

Unless otherwise provided, if trains meet at either of the designated points, the first-named train must take siding.

E.

TIME ORDERS

(1) No 5 run 20 mins late Deerfield to Roundabout

(2) No 9 run 20 mins late Deerfield to Chester and 10 mins late Chester to Roundabout

Examples (1) and (2) make the schedule of the designated train as much latter as stated in the order between the designated stations. The time in the order must be such as can be easily added to the schedule time.

In example (1), if No. 5 runs beyond Roundabout, then the leaving time at Roundabout is the schedule time.

In example (2), the leaving time of No. 9 at Chester is 10 minutes latter then the schedule time, and if No. 9 runs beyond Roundabout, then the leaving time at Roundabout is the schedule time.

**(3) No 1 wait at
Kendahl until 959 am
Saville until 1030 am**

No. 1 must not pass the designated stations before the times given. This order makes the time of No. 1 at Kendahl and Chester 959 am, at Saville and any station between Saville and Critchley where the schedule time is earlier, 1030 am.

In examples (1), (2) and (3), inferior trains must clear these later times as before required to clear the schedule time.

(4) No 2 wait at Chester until 959 am for Extra 284 west

No. 2 must not leave Chester until 959 am unless Extra 284 west has arrived.

Extra 284 west must be clear at Chester at 958 am.

If Extra 284 west cannot go to Chester for No. 2 and clear according to rule, Extra 284 west must be clear at 958 am at any station before reaching Chester, where the schedule time is earlier then 959 am.

F.

FOR SECTIONS

Note: See Rule 20 regarding displaying of signals.

(1) Eng 25 display signals and run as first 1 Deerfield to Roundabout

To be used when the engine number for which signals are displayed is not known, and is to be followed by example (2).

(2) Eng 20 run as Second 1 Deerfield to Roundabout

(3) Second 1 display signals Chester to Roundabout for Eng 9

(4) Engs 20, 25 and 9 run as First, Second and Third 1 Deerfield to Roundabout

(5) Engs 25 and 9 reverse positions as Second and Third 1 Saville to Roundabout

Each section affected by the above examples must be supplied copies of the order and will arrange signals accordingly, except in example (5), following sections, if any, need not be given copies of the order.

G.

EXTRAS

Note: Unless otherwise instructed by train order or by special instruction, an extra train must clear the time of regular trains as prescribed by rule. See Rules 73, 86 and 87.

(1) Eng 99 run extra Deerfield to Roundabout

(1a) Engs 284 and 308 coupled run extra Deerfield to Roundabout

(1b) Engs 326 and 442 run as two extras Deerfield to Roundabout and Extra 442 west leave Deerfield 20 mins after Extra 326 west leaves Deerfield

(1c) After helping No 113 Saville to Roundabout Eng 99 run extra Roundabout to Saville

Unless otherwise provides, this order does not give the extra right to occupy the main track between the switches of the siding at Roundabout or Saville.

(2) Eng 99 run extra Deerfield to Roundabout and this order is annulled at 710 pm

An extra so authorized must be clear at the time specified or protected in both directions as prescribed by rule 99.

(3) On Feb 17 after 645 am Eng 99 run extra Deerfield to Roundabout

An extra so authorized must not leave Deerfield before the date and time specified.

(4) After Extra 55 west has arrived at (or passed) Roundabout Eng 66 run extra Roundabout to Deerfield

An extra so authorized must not leave Roundabout until Extra 55 west has arrived at or passed Roundabout.

(5) Eng 77 run extra leaving Roundabout on Feb 17 as follows with right over all trains

Leave Roundabout 1130 pm

Saville 1225 am

Chester 147 am

Arrive Deerfield 222 am

This order may be varied by specifying the particular trains over which the extra shall or shall not have right.

An extra authorized by this form of train order must not pass the designated points before the times given and must move within yard limits the same as any other extra train.

Trains over which the extra is given right must clear the extra as prescribed by Rules 86 and 87.

Unless otherwise provided, examples (1), (1a), (1b), (2), (3), (4) and (5) do not give the extra so authorized right to occupy the main track between switches of the siding at Deerfield or Roundabout.

(6) Eng 99 run extra Deerfield to Roundabout and return to Kendahl

The extra must go to Roundabout before returning to Kendahl. Unless otherwise provided, this order does not give the extra right to occupy the main track between the switches of the siding at Deerfield or Roundabout, or at Kendahl on the return trip.

H.

WORK EXTRAS

(1) Eng 292 works extra 645 am until 545 pm between Kendahl and Saville

The work extra must clear the time of regular trains and, whether standing or moving, flag protection must be provided against extra trains in both directions.

Example (1) may be modified by adding:

(A) Not protecting against eastward extra trains

Flag protection against westward extra trains must be provided.

(B) Not protecting against extra trains

Flag protection against extra trains is not required.

(C) Not protecting against extra trains except protects against Extra 76 west after 310 pm

The work extra must provide flag protection against Extra 76 west at 310 pm. Flag protection against other extra trains is not required. Extra 76 west must not enter the working limits before 310 pm.

(2) Work Extra 292 clears (or protects against) Extra 76 west between Kendahl and Saville after 210 pm

Example (2) to be used when work extra has been instructed by train order to not protect against extra trains and it is desired to have it clear, or protect against designated extra train after a specified time. See Rules 219 and 219(A).

Extra 76 west must not enter the working limits before 210 pm and will then run expecting to find the work extra clear, or protecting itself, as the order requires.

(3) Work Extra 292 protects against No 55 (or _____ class trains, or regular trains) between Kendahl and Saville

The work extra may work upon the time of the train or trains mentioned and must provide flag protection against such train or trains. The regular train or trains receiving the order will run expecting to find the work extra protecting itself.

(4) Work Extra 292 has right over all trains between Kendahl and Saville 715 pm until 1159 pm

Example (4) gives the work extra exclusive right on the track between Kendahl and Saville from 715 pm until 1159 pm.

Unless otherwise provided, examples (1) and (4) do not authorize the work extra to occupy the main track between the switches of the siding at either of the stations named.

When the order indicates that the work extra is protecting against other trains, such trains will run expecting to find the work extra providing flag protection.

When the order instructs the work extra to not protect against extra trains, such extra trains must provide flag protection against the work extra.

Work extras must give way to all trains as promptly as possible.

J.

HOLDING ORDER

(1) Hold No 2

(2) Hold all (or eastward) trains

When a train has been so held it must not proceed until the order to hold is annulled, or an order is received in the form:

No 2 may go

These orders will be addressed to the operator and acknowledged in the usual manner, and will be delivered to conductors and engineers of all trains affected.

Form J will be used only when necessary to hold trains until orders can be given, or in case of emergency.

J-1.

CALL ORDER

No 2 call for orders at Chester

When a train has been so ordered, it must not leave the station named or the point named until a train order or Clearance Card Form A has been received.

When a train receives a Form J-1 Train Order (Call Order) at a point other than a signaled siding, the train must not proceed beyond the entering switch or other specific named location until a train order or clearance is received.

K.

ANNULLING A SCHEDULE OR A SECTION

- (1) **No 1 due to leave Deerfield Feb 2 is annulled Deerfield to Critchley**
- (2) **Second 6 due to leave Critchley Feb 2 is annulled Critchley to Roundabout**

The schedule or section annulled becomes void between the designated points and cannot be restored.

Form K must not be combined with other forms of train orders.

L.

ANNULLING AN ORDER

- (1) **Order No 10 is annulled**
- (2) **The order reading No 1 meet No 2 at Saville is annulled**

In example (2) the entire body of the order being annulled must be stated.

If an order which is to be annulled has not been delivered to a train, the annulling order will be addressed to the operator, who must destroy all copies of the order annulled but his own, and write on that:

Annulled by Order No _____

An order which has been annulled must not be reissued under its original number.

M.

ANNULLING PART OF AN ORDER

- (1) **That part of order No 5 reading No 1 meet No 2 at Saville is annulled**
- (2) **That part of order No 8 reading No 3 pass No 1 at Saville is annulled**

Form M will be used only when that part of the order not annulled is clear in its wording.

P.

SUPERSEDING AN ORDER OR PART OF AN ORDER

This order will be given by adding to the prescribed forms the words "instead of _____".

- (1) **No 1 meet No 2 at Chester instead of Kendahl**
- (2) **No 1 pass No 3 at Chester instead of Kendahl**

An order which has been superseded must not be reissued under its original number.

A meeting point must not be changed by use of Form P train order more than once. If further changes are necessary, previous order must be annulled.

Form G or Form H train orders must not be superseded to shorten or lengthen the limits of distance or time authorized.

When a train is directed by train order to take siding for another train, such instructions apply only at the point designated in that order, and do not apply to the superseding order unless so specified.

V.

CHECK OF TRAINS

- (1) **All (regular) (_____ class) trains due at Roundabout at or before 650 am (have passed) (have arrived) (have left) except _____**
- (2) **No 1 and No 2 (have passed) (have arrived) (have left) Roundabout**
- (3) **Extra 99 east (has arrived) (has left) Deerfield on order No _____**

These forms to be used when it is desired to give a train information required by Rule 83.

In example (3) "on order No _____" refers to the train order number of the Form G train order authorizing the extra train named. See Rules 83(A) and 83(C).

W.

CHANGE IN REGISTER REQUIREMENTS

- (1) **Extra 38 east may check register at Critchley against Extra 37 west on order No _____**
- (2) **No 2 may check register at Roundabout against Extra 37 west on order No _____**

In examples (1) and (2) "on order No _____" refers to the train order number of the Form G train order authorizing the extra train named for which the train register is being checked. See Rules 83(A) and 83(C).

X.

SLOW TRACK CONDITIONS

- (1) **Do not exceed _____ SMPH between _____ and _____**

This example may be modified by adding location of condition by scale mile posts, or time as, "801 am until 501 pm".

Y.

RELIEF OF FLAG PROTECTION

- (1) **Westward trains except No 47 (or Extra 99 west) wait at Deerfield until 1015 am**

This order relieves No. 47 (or Extra 99 west) from protecting against westward trains until the time specified in the order.

- (2) **Westward extra trains wait at Deerfield until 1015 am**

This order relieves regular trains receiving the order from protecting against westward extra trains until the time specified in the order.

(3) Westward extra trains except Extra 99 west wait at Deerfield until 1015 am

This order relieves Extra 99 west from protecting against westward extra trains until the time specified in the order.

When it is desired to limit the protection to a portion of the railway, Examples (1), (2) and (3) may be prefaced by the words:

Between Deerfield and Chester

Examples (1), (2) and (3) must not include any part of the limits of a work extra, and do not authorize train movements in the opposite direction.

Train dispatchers must not permit movement of a following extra train within the limits of the order until expiration of times or times stated in such order.

Z.

AUTHORIZING ASSUMPTION OF SCHEDULE

(1) Eng 326 run as No 113

This order authorizes the engine to assume the designated schedule between the schedule originating and terminating stations designated in the time table.

(2) Eng 326 run as Nos 113 and 135 and 146 (and so on)

This order authorizes the engine to assume in turn the designated schedules between the schedule originating and terminating stations designated in the time table.

(3) Eng 326 run as No 113 from Chester to Roundabout

This order authorizes the engine to assume the designated schedule between the stations designated in the order.

(4) Eng 326 run as all _____ class schedule Nos

This order authorizes the engine to assume in turn all the schedules of the designated class between the schedule originating and terminating stations designated in the time table.

ILLUSTRATION OF FILLED OUT TRAIN ORDER FORM 19

Printed on green colored paper except as provided by Rule 217.

FORM 19	DEERFIELD AND ROUNDABOUT RAILWAY	FORM 19
TRAIN ORDER No. <u>2</u> MARCH 1, 19 95		
To <u>C&E EXTRA 284 AND 308 COUPLED WEST</u>		
At <u>KENDAHL</u>	<u>X</u>	Opr. <u>M</u>
NO 124 ENG 326 WAIT AT ROUNDABOUT UNTIL TWELVE FORTY EIGHT 1248 PM FOR EXTRA 284 AND 308 COUPLED WEST JGH		
DO NOT OVERLOOK REGULAR TRAINS OR SECTIONS THEREOF		
Made Complete Time <u>1202 P M</u> <u>J.T. Berg</u> Opr.		
THE BEST SAFETY DEVICE IS A CAREFUL MAN		

ILLUSTRATION OF FILLED OUT CLEARANCE CARD FORM A

Printed on buff colored paper.

FORM A	DEERFIELD AND ROUNDABOUT RAILWAY	FORM A
CLEARANCE CARD		
<u>KENDAHL</u> Station MARCH 1, 19 95		
To C.&E. Train <u>EXTRA 284 AND 308 COUPLED WEST</u>		
I have <u>1</u> order/s and <u>NO</u> message/s for your train.		
Orders <u>2</u>		
Message _____		
(If no train orders or messages, operator must write "No" in spaces provided.) THIS FORM IS AUTHORITY TO PASS TRAIN ORDER SIGNAL AT STOP.		
OK at <u>1204 P M</u> <u>JGH</u> Dispr. <u>J.T. Berg</u> Opr.		
This does not affect any orders you may have received.		

ILLUSTRATION OF FILLED OUT TRAIN REGISTER

Deerfield and Roundabout Railway						
ROUNABOUT ARRIVING TRAIN REGISTER						
WESTWARD						
Timetable No. <u>34</u>			Date <u>7/23/07</u>			
SECTION NO.	TRAIN NO.	ENGINE NO.	TIME ARRIVED	SIGNALS	CONDR.	ENGR.
	113	326	1246P	NONE	JGH	EB
FIRST	135	326	141P	GREEN	EB	JGH
SECOND	135	442	144P	NONE	MC	BC
	EXTRA	308	157P	WHITE	KK	JFB
	157	326	236P	NONE	JGH	EB
	179	326	331P	NONE	EB	JGH

Actual train register has 20 lines.

ILLUSTRATIONS OF FILLED OUT REGISTER TICKET FORM 230

DEERFIELD AND ROUNDABOUT RAILWAY COMPANY
REGISTER TICKET FORM 230

Section No.	Train No.	Engine No.
	135	326
Signals Displayed	Conductor	Engineer
NONE	JGH	JSH
Time Arrived	Station	Date
12:47P	CH	6-7-2014

DEERFIELD AND ROUNDABOUT RAILWAY COMPANY
REGISTER TICKET FORM 230

Section No.	Train No.	Engine No.
FIRST	157	81
Signals Displayed	Conductor	Engineer
GREEN	JGH	EBP
Time Arrived	Station	Date
1:34P	CH	6-7-2014

DEERFIELD AND ROUNDABOUT RAILWAY COMPANY
REGISTER TICKET FORM 230

Section No.	Train No.	Engine No.
SECOND	157	326
Signals Displayed	Conductor	Engineer
NONE	BMC	BMC
Time Arrived	Station	Date
1:39P	CH	6-7-14

RAILWAY RADIO RULES

226. The following rules and requirements cover use of railway radio systems and govern personnel using such systems.

227. Designated personnel, while on duty, must have their radio on, the proper channel selected and know that the radio batteries are in good condition.

The current radio channel will be posted on bulletin boards.

228. Before transmitting, personnel operating a radio must listen a sufficient interval to be sure the channel is not already in use.

229. The use of "VOX" or voice operated transmission is prohibited and precautions must be taken to avoid activation of this function on a radio.

230. Radio communication must not be used to avoid compliance with any operating rule.

231. Any radio communication which is not understood or completed in accordance with these rules, must not be acted upon and must be treated as though not sent. Exception: If any information is received which would affect the safety of personnel, others, or damage to property; the safe course must be taken, and, if necessary, movement stopped until an understanding has been reached.

232. Radios must be tested at the beginning of a tour of duty. The test must consist of an exchange of voice transmissions with another radio and the quality and readability of its transmissions must be ascertained.

233. When radio is being used in lieu of hand signals both the direction and distance traveled must be given. Movement must be stopped in one-half the distance specified unless additional instructions are received.

234. When train orders are transmitted by radio directly to an addressee they must be transmitted in accordance with applicable operating rules, and the following:

A. The train dispatcher shall establish radio communication with the addressee and inform the addressee of the intent to transmit a train order.

B. The addressee of the train order shall inform the train dispatcher of the circumstances of their movement, if any, and their exact location, and if the addressee is prepared to receive the train order.

C. After the train dispatcher has ascertained the positive identity and exact location of the addressee, and has determined that is safe to transmit the train order, the train dispatcher shall then transmit the train order.

D. After the train order has been received, it shall be immediately repeated in its entirety by the addressee. After verifying the accuracy of the repeated train order, the train dispatcher will respond thus: "(train number or identification of addressee), train order number _____ made complete, (the time)". Personnel must acknowledge this response by replying, thus: "(train number or identification of addressee), train order number _____ made complete, (the time made complete)".

E. Except as provided by Rule 231 a train order transmitted by radio which has not been made complete may not be acted upon and must be treated as though not sent. Rule 214 will not apply. "Complete" must not be given to a radio transmitted train order for other trains until response "complete" has been acknowledged by the train being restricted.

F. Information contained in a train order may not be acted upon by persons other than those to whom the train order is addressed.

235. If necessary for clarity, a phonetic alphabet shall be used to pronounce any letter used as an initial, except initials of railways.

A word which needs to be spelled for precision or clarity shall first be pronounced, and the word shall then be spelled. If necessary, the word shall be spelled again, using a phonetic alphabet.

236. Where rules require the signature of the addressee to a train order, direct voice communication between the train dispatcher and the addressee of the train order shall constitute fulfillment of such requirement.

237. Provisions of Rule 205 and Rule 206 Ninth Paragraph shall not apply when not more than two train orders are in effect not including Form G train order examples 1 or 1a in effect. Train orders when issued under provisions of Rule 237 shall include not more than one form of train order.

**EXAMPLE OF TRANSMISSION OF A TRAIN ORDER TO TRAIN ORDER OPERATORS
VIA TELEPHONE OR RADIO**

Note: In the following examples wording of the transmission is shown in italics type preceded by the identity of the person speaking. Train number 124 is an eastward first class train originating at Roundabout.

Dispr = Train dispatcher.

Opr RB = Train order operator at station Roundabout.

Opr KD = Train order operator at station Kendahl.

Dispr: Roundabout stop east copy 3

Opr RB: Roundabout stop displayed east

Dispr: Kendahl stop west copy 4

Opr KD: Kendahl stop displayed west

Dispr:

Train order number 2

To Roundabout C&E number 124

To Kendahl C&E extra 284 and 308 coupled west

Period

Number 124 *O-n-e T-w-e-n-t-y F-o-u-r* engine 326 *T-h-r-e-e T-w-e-n-t-y S-i-x* wait at Roundabout *R-o-u-n-d-a-b-o-u-t* until 1248 pm *T-w-e-l-v-e F-o-r-t-y E-i-g-h-t P-m* for extra 284 *T-w-o E-i-g-h-t-y F-o-u-r* and 308 *T-h-r-e-e Z-e-r-o E-i-g-h-t* coupled west

Signed (dispatchers initials)

Opr RB:

Train order number 2

To C&E number 124 at Roundabout

Number 124 *O-n-e T-w-e-n-t-y F-o-u-r* engine 326 *T-h-r-e-e T-w-e-n-t-y S-i-x* wait at Roundabout *R-o-u-n-d-a-b-o-u-t* until 1248 pm *T-w-e-l-v-e F-o-r-t-y E-i-g-h-t P-m* for extra 284 *T-w-o E-i-g-h-t-y F-o-u-r* and 308 *T-h-r-e-e Z-e-r-o E-i-g-h-t* coupled west

Signed (dispatchers initials)

Dispr: Roundabout made complete (the time) (Dispr initials)

Opr RB: Roundabout complete (Opr RB initials)

Opr KD:

Train order number 2

To C&E number 219 at Kendahl

Number 124 *O-n-e T-w-e-n-t-y F-o-u-r* engine 326 *T-h-r-e-e T-w-e-n-t-y S-i-x* wait at Roundabout *R-o-u-n-d-a-b-o-u-t* until 1248 pm *T-w-e-l-v-e F-o-r-t-y E-i-g-h-t P-m* for extra 284 *T-w-o E-i-g-h-t-y F-o-u-r* and 308 *T-h-r-e-e Z-e-r-o E-i-g-h-t* coupled west

Signed (dispatchers initials)

Dispr: Kendahl made complete (the time) (Dispr initials)

Opr KD: Kendahl complete (Opr KD initials)

**EXAMPLE OF TRANSMISSION OF A CLEARANCE TO A TRAIN ORDER OPERATOR
VIA TELEPHONE OR RADIO**

Opr KD: Kendahl clear extra 284 and 308 coupled west with 1 order number 2

Dispr: Kendahl clear extra 284 and 308 coupled west with 1 order number 2 OK (the time) (Dispr initials)

EXAMPLE OF TRANSMISSION OF A TRAIN ORDER DIRECTLY TO ADDRESSEE VIA RADIO

Dispr = Train dispatcher.

Condr 124 = Conductor of number 124 a first class eastward train.

Condr Exa = Conductor of extra 284 and 308 coupled west.

Dispr: Number 124 conductor standby to receive train order

Condr 124: Number 124 holding at Roundabout on siding clear of main track and conductor prepared to receive train order

Dispr:

Train order number 2

To C&E number 124 at Roundabout

Number 124 engine 326 wait at Roundabout until 1248 pm for extra 284 and 308 coupled west signed (Dispr initials)

Condr 124:

Train order number 2

To C&E number 124 at Roundabout

Number 124 engine 326 wait at Roundabout until 1248 pm for extra 284 and 308 coupled west signed (Dispr initials)

Dispr: Number 124 train order number 2 made complete (the time)

Condr 124: Number 124 train order number 2 made complete (the time made complete)

Dispr: Extra 284 and 308 coupled west conductor standby for train order

Condr Exa: Extra 284 and 308 coupled west approaching Kendahl conductor prepared to receive train order

Dispr:

Train order number 2

To C&E extra 284 and 308 coupled west at approaching Kendahl

Number 124 engine 326 wait at Roundabout until 1248 pm for extra 284 and 308 coupled west signed (Dispr initials)

Condr Exa:

Train order number 2

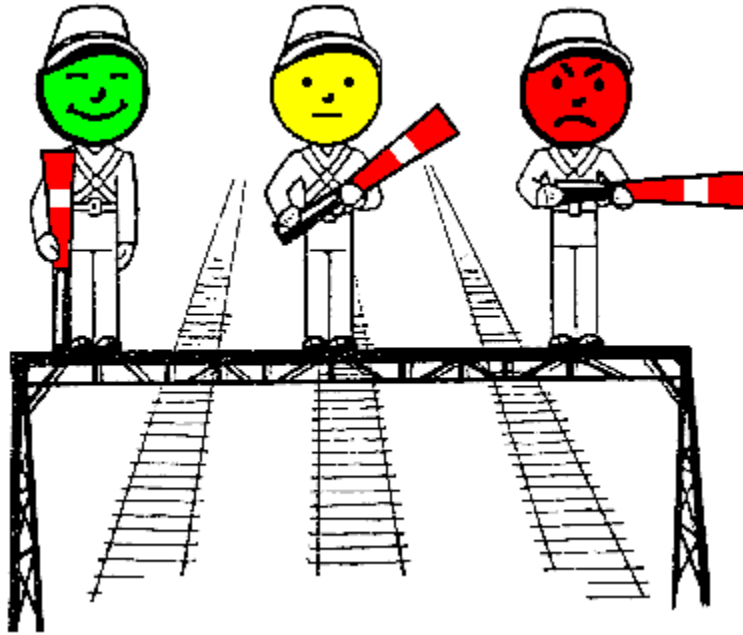
To C&E extra 284 and 308 coupled west at approaching Kendahl

Number 124 engine 326 wait at Roundabout until 1248 pm for extra 284 and 308 coupled west signed (Dispr initials)

Dispr: Extra 284 and 308 coupled west train order number 2 made complete (the time)

Condr Exa: Extra 284 and 308 coupled west train order number 2 made complete (the time made complete)

BLOCK AND INTERLOCKING SIGNALS ARE SENTINELS OF SAFETY



KNOW where they are located.
KNOW the information they can convey.
SEE them and **CALL** them.
BE PREPARED to **DO**,
THEN DO WHAT THESE VIGILANT
WATCHMEN TELL YOU TO DO.

Illustration above from the Kansas City Terminal Railway Operating Rules
Effective May 15, 1953.

BLOCK AND INTERLOCKING SIGNALS

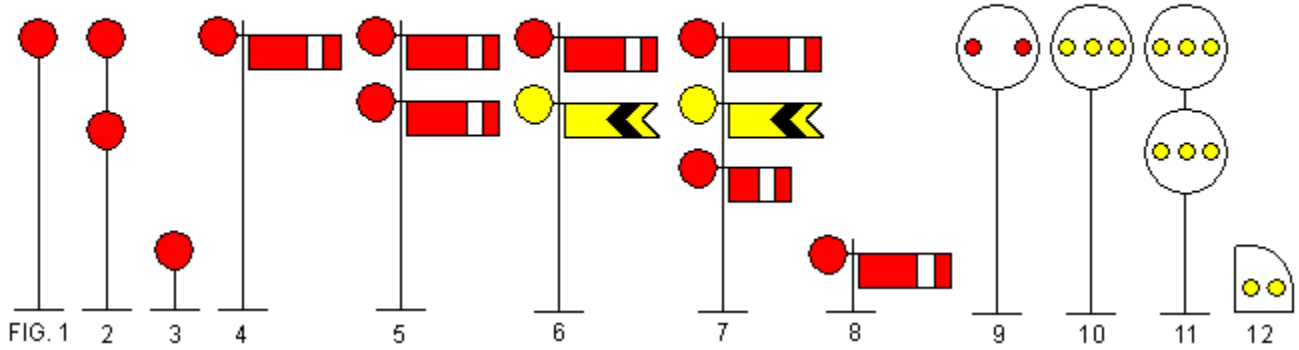
Rule 240A.

Name: STOP.

Indication: Stop before any part of train or engine passes the signal and fouling point.

"SAO" letter plates have no significance.

RULE 240A ASPECTS



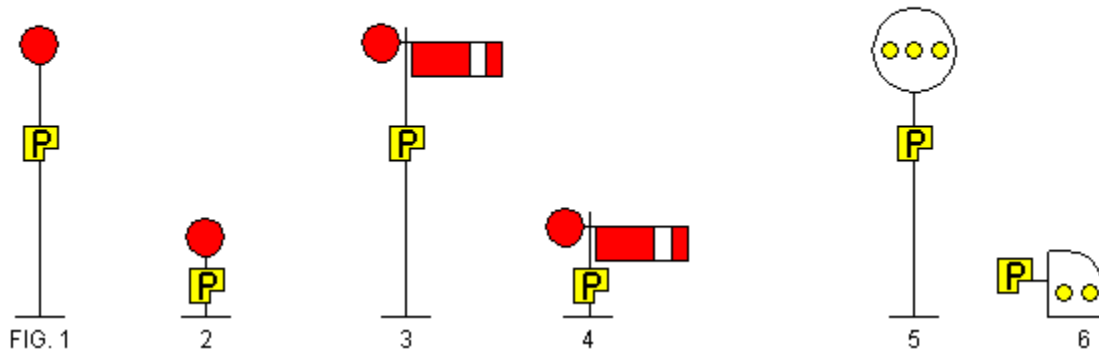
Rule 240B.

Name: STOP AND PROCEED.

Indication: Stop before any part of train or engine passes the signal and fouling point, then proceed at restricted speed.

Deerfield and Roundabout Railway does not use flashing red aspect for Rule 240B.

RULE 240B ASPECTS



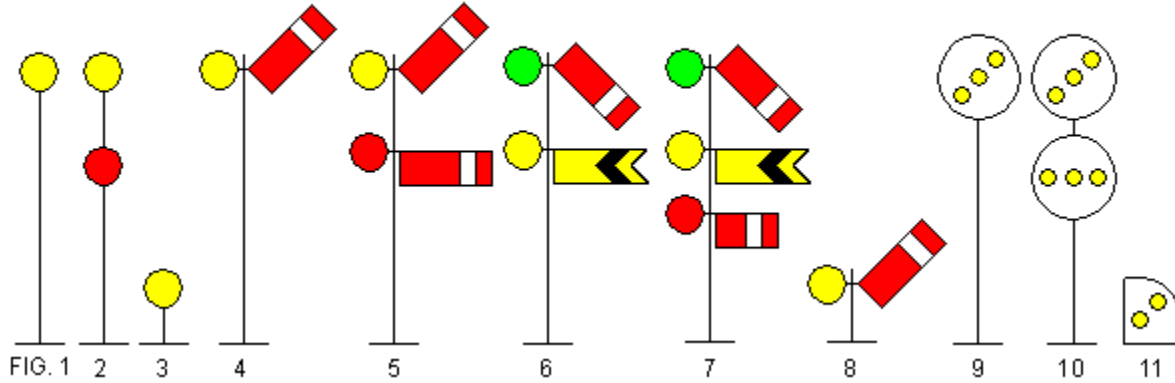
Rule 240D.

Name: APPROACH.

Indication: Proceed prepared to stop before any part of train or engine passes the next signal.

"P" or "SAO" letter plates have no significance.

RULE 240D ASPECTS



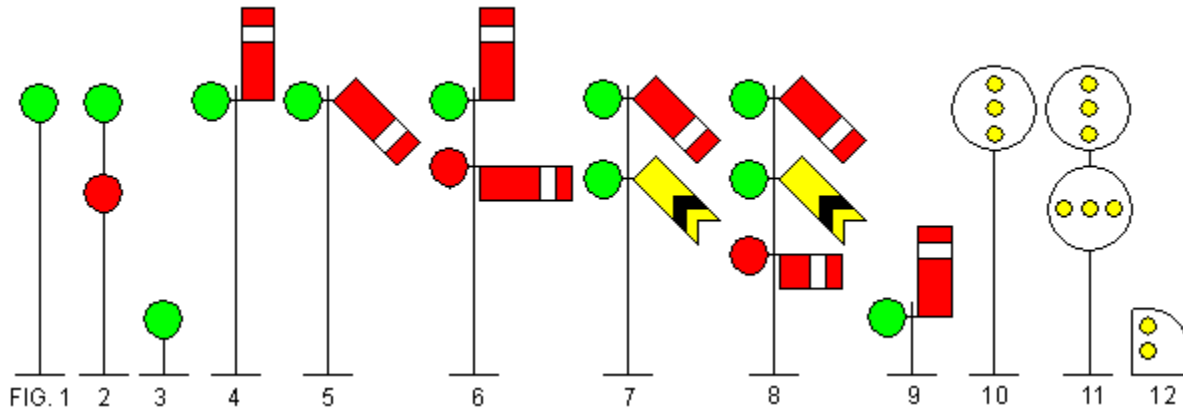
Rule 240E.

Name: CLEAR.

Indication: Proceed.

"P" or "SAO" letter plates have no significance.

RULE 240E ASPECTS

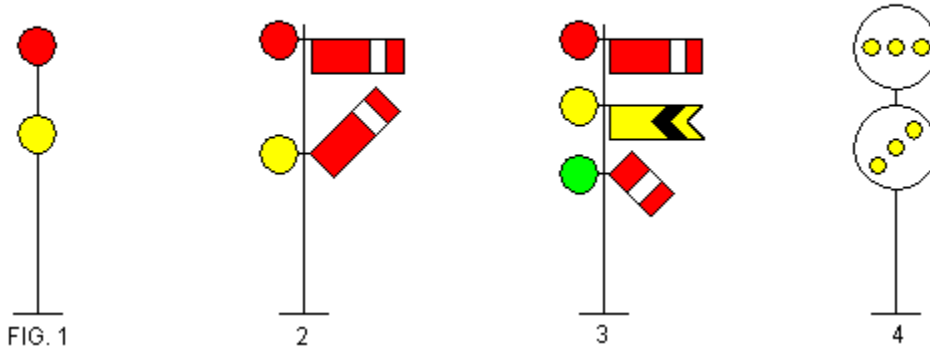


Rule 240L.

Name: DIVERGING APPROACH.

Indication: Proceed on diverging route at medium speed prepared to stop before any part of train or engine passes the next signal.

RULE 240L ASPECTS

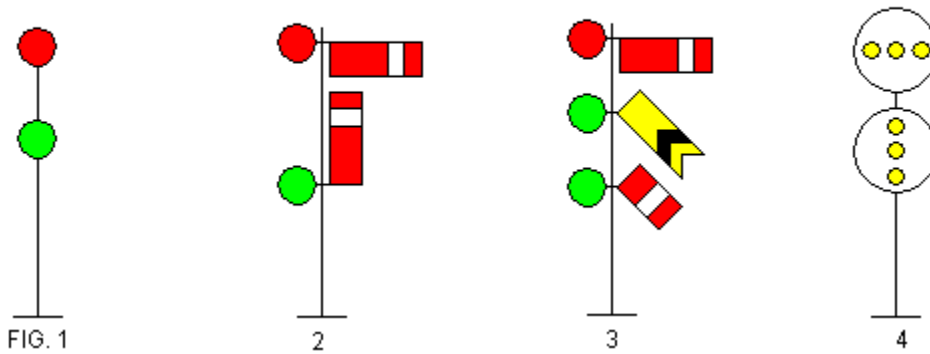


Rule 240M.

Name: DIVERGING CLEAR

Indication: Proceed on diverging route at medium speed.

RULE 240M ASPECTS

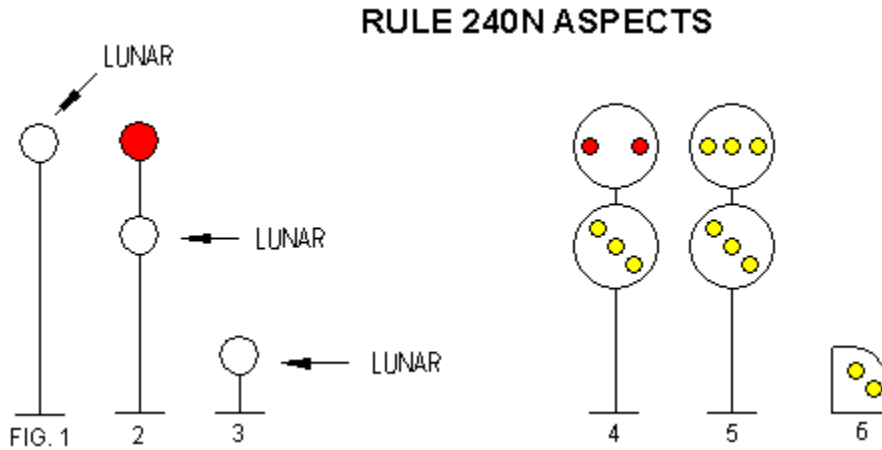


Rule 240N.

Name: RESTRICTING.

Indication: Proceed at restricted speed through interlocking limits or block or until entire train is past resume speed sign.

"P" or "SAO" letter plates have no significance.



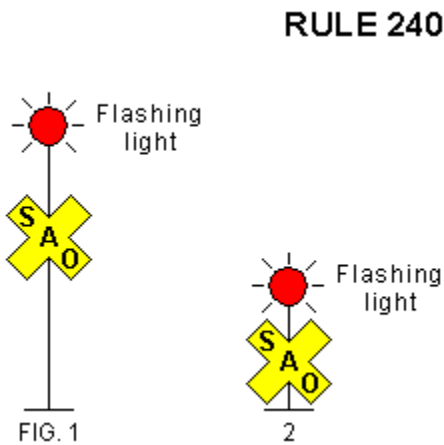
Rule 240X.

Name: STOP AND OPERATE.

Indication: Stop before any part of train or engine passes the signal and fouling point, and operate the approach switch.

A dwarf signal displaying aspect dark with "SAO" letter plate conveys no indication.

See Rules 261 and 261(A).



Rule 261. Unless otherwise provided, the approach switch for a block or interlocking signal must not be operated, unless a train is authorized by time table, train order or special instruction to proceed, Rule 240X is displayed by the signal and it has been ascertained that no other movement will act on the signals indication.

Rule 261(A). When Rule 240X is displayed by a signal and it has been ascertained that no other movement will act on the signals indication, a regular train governed by the signal may operate an approach switch before its schedule leaving time.

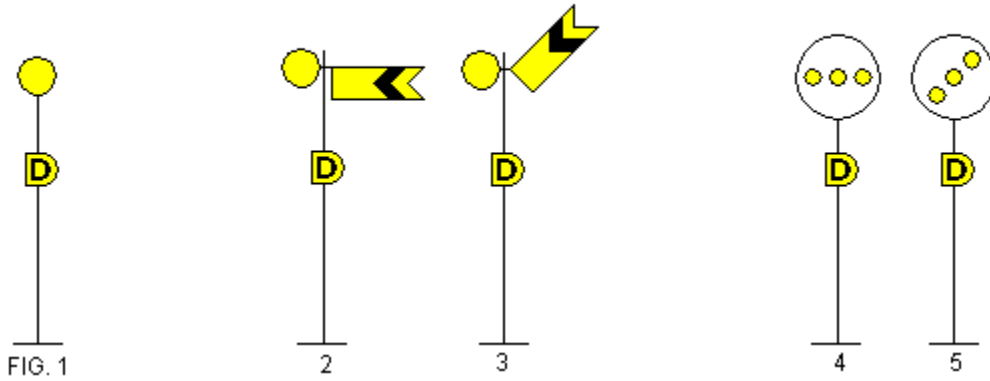
Rule 242A.

Name: DISTANT APPROACH.

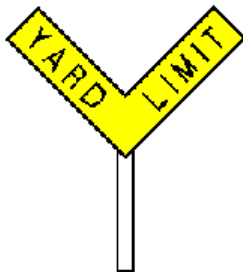
Indication: Proceed prepared to stop within the range of vision short of train, engine, car or next signal.

Note: Distant signals do not indicate block occupancy beyond the distant signal.

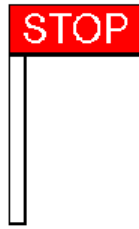
RULE 242A ASPECTS



TRACK SIDE SIGNS AND TRACK MARKERS



Yard limit sign.
See Rule 93.



Stop board sign.
See Rule 98.



Resume speed sign.



Yard limit track marker.
See Rule 93.



Stop board track marker.
See Rule 98.



Resume speed track marker.

GENERAL DESCRIPTION OF SIGNALS

Signal aspects are shown by the position of semaphore arms, color of lights, flashing of lights, position of lights, or any combination thereof. They may be qualified by number plate, letter plate, marker, shape and color of semaphore arms, or any combination thereof.

Day and night aspects for color light signals shall have the same colors as the night aspects of the semaphore signals.

Day and night aspects for position light signals shall have the same positions as the day aspects of the semaphore signals.

Block and interlocking signals, as far as practicable, are located to the right of, or over the track which they govern.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast as viewed from an approaching train.

GENERAL SIGNAL RULES

250. Trains must comply with the indications of all signals which govern their movements. When visibility is restricted due to weather or other conditions trains must stop, if necessary, to determine indication of signals.

250(A). Unless otherwise provided, general, block and interlocking signal rules that refer to trains shall also apply to engines, movements and switching movements.

251. When two or more trains are approaching a signal that jointly governs their movements, the trains must stop before the signal and fouling point, and a thorough understanding must be had between the train crews as to the sequence in which the trains will be governed by the signal.

252. If a train fails to stop before the fouling point of a signal displaying a "Stop" indication, the front of the train must immediately be provided flag protection as prescribed by Rule 99.

253. Personnel must inform themselves as to the location of signals where the fouling point will be passed before the signal reached.

254. After a train has passed a signal displaying a proceed indication, the indication of the next signal may change to "Stop", and members of the train crew must be on the alert to observe it.

BLOCK AND INTERLOCKING SIGNAL RULES

260. On portions of the railway, trains will be governed by the indications of block signals and interlocking signals, whose indications will supersede the superiority of trains and authority to proceed granted by time table, train order or special instruction, except train orders or special instructions pertaining to a specific block or interlocking signal.

261. Unless otherwise provided, the approach switch for a block or interlocking signal must not be operated, unless a train is authorized by time table, train order or special instruction to proceed, Rule 240X is displayed by the signal and it has been ascertained that no other movement will act on the signals indication.

261(A). When Rule 240X is displayed by a signal and it has been ascertained that no other movement will act on the signals indication, a regular train governed by the signal may operate an approach switch before its schedule leaving time.

263. Unless otherwise provided, where indicated by signs or when required by special instructions, the block release switch must be operated when a train is leaving a block.

264. Unless otherwise provided, where indicated by signs or when required by special instructions, a train must not stop after proceeding over an exit track circuit until the entire train is clear of the exit track circuit, unless it is necessary to stop to avoid an accident.

If a train stops over an exit track circuit, flag protection must immediately be provided as prescribed by Rule 99 against trains from all directions, and the train dispatcher notified at once.

A train must not proceed over an exit track circuit until not less than 20 seconds has elapsed after the last car of a leading train has cleared the exit track circuit.

265. Unless otherwise provided, if a train stops or reduces speed within a block and is delayed such that it cannot be clear of the block in not more twice the time it normally requires to traverse the full length of the block, flag protection must immediately be provided as prescribed by Rule 99 against opposing and following trains.

266. Unless otherwise provided, a reverse movement must not be made after proceeding on block or interlocking signal indications.

267. A signal system control reset switch must not be operated, unless authorized by the train dispatcher.

ADDITIONAL INTERLOCKING RULES

611. Signals must be kept in the position displaying the most restrictive indication, except when displayed for an immediate movement.

612. Appliances must be operated carefully. If any irregularity affecting their operation is detected, or there is a derailment or other incident which may have damaged the appliances of the interlocking, the signals must be displayed to give their most restrictive indication until repairs are made and a thorough inspection reveals that it is safe for the movement of trains. The train dispatcher must be notified as soon as possible of the circumstances.

613. When the route is set the signals must be operated sufficiently in advance of approaching trains to avoid delay.

615. When necessary to change any route for which the signals have been cleared for an approaching train, switches, movable frogs or derails, must not be changed or signals cleared for any conflicting route until the train for which the signals were first cleared has stopped.

616. The lever operating a switch, derail, movable frog, detector bar or lock must not be moved when any portion of a train is standing on or closely approaching the switch, derail or movable frog.

617. Operating levers must be blocked or marked and should not be used when a track, switch or signal is undergoing repairs or when a track is obstructed.

618. During cold weather the levers must be moved as often as may be necessary to keep connections from freezing.

621. Signalmen must observe, as far as practicable, whether the indications of the signals correspond with the positions of the levers.

626. Signalmen must, as far as practicable, observe all passing trains and note whether they are complete and in order; should there be any indication of conditions endangering the train, or any other train, the signalman must take such measures for the protection of trains as may be practicable.

627. If a signalman has information that an approaching train has parted he must, if possible, stop trains on conflicting routes and clear the route for the parted train.

628. Hand signals must not be used when the proper indication can be displayed by the interlocking signals. When the proper indication cannot be displayed, hand signals may be used.

When hand signals are necessary, they must be given from such a place and in such a way that there can be no misunderstanding on the part of train crews as to the signals or as to the train for which they are intended.

629. Hand signals or verbal authority must not be given until the route has been examined, is known to be safe for the passage of the train, and until the train comes to a stop at the interlocking signals.

631. Lights in interlocking stations must be so placed that they cannot be seen from approaching trains.

632. If a train over-runs a signal displaying a "Stop" indication, the fact must be reported to the train dispatcher.

661. If a signal, permitting a train to proceed, after being accepted, is changed to a "Stop" indication before it is reached, the stop must be made at once. Such occurrence must be reported to the train dispatcher.

663. Unless otherwise provided, trains must not pass an interlocking signal displaying a "Stop" indication without receiving hand signals or verbal authority. Engineers must not proceed on hand signals or verbal authority until they are fully informed of the situation; the movement must then be made at restricted speed.

668. Any unusual detention at interlocking plants must be reported to the train dispatcher.

683. When any part of an interlocking plant is to be repaired, a thorough understanding must first be had with the signalman, in order to secure the safe movement of trains during repairs. The signalman must be notified when the repairs are completed.

ADDITIONAL GENERAL RULES

701. All personnel must observe trains closely and if anything unusual or defective is noted, such as hot journals, brakes sticking, dragging equipment, sliding wheels, indications of fire, lading shifted over side or end of car, protruding objects, swinging car door, trains running to close together, or any other dangerous condition, they must make every effort to call attention of the crew on the train to such conditions. If train is moving, unless provided for otherwise, stop signal must be given. The train dispatcher must be notified at once if unable to stop the train.

The following code of signals will be used:

HOT JOURNALS:

By Day - Hold nose with one hand and point toward trucks with the other hand.

By Night - Stop signal.

BRAKES STICKING OR SLIDING WHEEL:

By Day - Shove hand in sliding movement out from body.

By Night - Stop signal.

If no defects in equipment noticed by personnel, the following signals will be used:

By Day - Raise hand and hold it stationary.

By Night - Quick, sharp, proceed signal.

702. When a train is stopped to be met or passed by another train, crew of standing train must inspect passing train.

703. Members of the crew must watch their train closely, especially on curves and approaching switches, looking out for any dangerous condition, or signals from other personnel, that might require the train to be stopped.

704. Members of train crews must observe the indication displayed by block, interlocking, distant, train order and other signals that govern their movement, and keep a sharp lookout for signals displayed by other trains, and keep in mind the requirements of rules, time tables, train orders or special instructions affecting the movement of their train, and must call attention to or take necessary action to stop the train in event of any oversight or mistake.

705. The general direction and government of a train is in charge of the conductor. When there is no conductor the engineer will have charge of the train and must perform the duties of the conductor.

706. Conductors and engineers must know that their subordinates are familiar with and perform their duties and comply with the rules and special instructions. They must ascertain the extent of their subordinates' experience, instructing them when necessary, in the proper and safe performance of their work.

707. Conductors and trainmen must give special attention to the proper care of the markers and see that they are adjusted to the track so as to give the best indication.

708. All personnel, in any way connected with the movement of passenger trains, or the switching and making up of occupied passenger trains must exercise the utmost care to provide against any rough handling. Special attention must be given to the handling of sleeping cars and every means used to avoid annoyance to passengers. The convenience, comfort and safety of passengers must be the first consideration under all circumstances.

When coupling to passenger cars full stop must be made not less than two actual feet from the coupling, then the engine moved slowly to make coupling.

709. Cars must not be left on sidings when possible to avoid it.

When a siding is obstructed the train dispatcher must be notified as soon as possible.

710. Personnel performing switching must do so efficiently and in a manner which will avoid personal injury, damage to the contents of cars, equipment, structures or property.

711. Before coupling to or moving cars or engines it must be known that they are properly secured and can be moved safely.

712. Before coupling to or moving cars, gangplanks, conveyors, tank couplings, elevator spouts and similar devices, must be removed and clear for the movement.

713. All persons in or about cars that are being loaded or unloaded must be notified and in a safe position before coupling to or moving the cars. When such cars are moved, they must be returned to their former location unless otherwise directed.

714. Before shoving cars, the cars must be coupled and slack stretched to be sure all couplings are made. Before shoving cars it must be known there is sufficient room to hold the cars. Cars must not be shoved out to foul other tracks unless the movement is properly protected.

715. When switching or placing cars, they must be left where they will fully clear passing cars on adjacent tracks.

716. Where engines may be working at both ends of a track there must be a proper understanding between the crews involved.

717. When cars are left on any track they must be properly secured. When cars are detached from other cars it must be known that the cars left are properly secured. Brakes or wheel chocks on cars on a grade must be set on the low end of the cut of cars and the slack bunched.

CONDUCTORS

901. Before leaving an initial station, conductors must see that their trains are provided with the proper signals, tools and sufficient supplies, and know that the cars in their train have been inspected.

902. Conductors must never entrust the duties of a flagman to persons not entirely familiar with them, and they must give the fullest instructions in such duties which the circumstances will permit, and know that the flagman go sufficient distances to insure proper protection to trains.

903. Conductors must do all they can towards the starting of their trains at the appointed time, and make every effort consistent with the rules and with safety to move them with regularity and as nearly on time as possible. Any lack of cooperation in this respect on the part of personnel must be reported to the train dispatcher.

904. Conductors must see that the hand and lantern signals are carefully and correctly given, and that whistle signals are accurately sounded.

905. Conductors must inspect and require train crew members to inspect the running gear and brake and draft rigging of trains as often as practicable, and remedy so far as possible any defects discovered.

PASSENGER SERVICE

921. The rules and procedures for carrying passengers shall be governed by the current Corporation Rules and Regulations of the Lake Forest Live Steamers Railway Museum Incorporated.

FREIGHT SERVICE

955. Conductors are responsible for the security of all freight carried by their trains.

956. The train dispatcher must be notified when bad order cars are left at stations.

957. Conductors must give proper attention to the handling of live stock.

958. Open or stock cars loaded with creosoted ties should be trained at least six cars from the engine.

959. Merchandise, flour, sugar, butter, or other property of similar kinds, must not be loaded in cars unfit to carry it, such as cars previously loaded with oil or other unclean freight.

960. Wooden under frame cars should be placed next ahead of the caboose.

961. Cars must not be handled behind the caboose, except in cases of emergency.

ENGINEERS

970. Engineers must see that their engine has the necessary signals, tools and supplies before starting on each trip.
971. Engineers must see that all connections between engine and train, also between engines, if two or more are coupled, are properly and securely made.
972. Engineers must give special attention to the care and condition of signals prescribed in Rules 17 to 26 inclusive, and to markers when used on engines, and see that proper train signals are correctly displayed. Flags must be kept clean and lamps kept burning brightly when in use.
973. Engineers must exercise care in making couplings and acting upon hand signals. Unless movement is otherwise protected, the disappearance of hand signals from view must be regarded as a stop signal.
974. Engineers must exercise caution and good judgment in starting, stopping and running trains to avoid violent or sudden movements or excessive speed which might cause discomfort or injury to passengers or personnel, or damage to property.
975. At points where there is no switching service, engineers will, when necessary, make up and put away their trains.
976. When engineer leaves engine under steam for an extended period of time to perform other duties or for meal break, the valves must be centered, throttle tightly closed, cylinder cocks opened and a driving wheel must be blocked to prevent forward or backward movement.
977. Engineers must exercise great care to prevent water being thrown from smokestack when starting, and must not open the cylinder cocks nor permit overflow from injectors at station platforms or other points where liable to throw hot steam on passengers, personnel or others. They must see that firing is done in such a manner as to avoid dense smoke, and the steam pressure is regulated to avoid the escape of steam from safety valves.
978. Engineers must know that the train is under control and the brakes are in working condition when approaching railway crossings, or other imperative stop, and before descending a heavy grade.
979. Engineers must keep a vigilant lookout for the position of switches while running and must frequently look back, especially while rounding curves, to see whether they have complete trains and they are all right.
980. Ash pans and front ends must not be cleaned at switches, frogs or interlocking fixtures; nor upon ballasted track or in yards, except at designated places for the purpose.
981. Sand must not be used when passing over switches, frogs and interlocking fixtures. In freezing weather overflow from injectors must not be permitted in such places.
982. Before leaving fuel or water stations the engineer must know that aprons, hoses and spouts have been properly replaced so as to clear passing trains.
983. Engineers must know their time on the railway, and will not start from a station, even though they receive a signal from the conductor, unless they can reach the next station in time to properly clear superior trains.
984. Extra trains and delayed regular trains must sound the whistle at intervals in obscure places, to warn track crews.
985. Engineers must use every precaution to prevent setting fires along the railway.

986. Engineers must carefully read and observe the following regarding the handling of engines and economical use of coal:

a. Don't forget, before starting fire, ensure level of water above boiler crown sheet is more than adequate for the period of time before sufficient steam pressure is developed to operate injector. There must be **ABSOLUTELY NO DOUBT** in this matter and extra precautions must be taken to ensure water glass is indicating true level of water in boiler. If engine is equipped with boiler gauge cocks, they must also be used to ascertain if level of water in boiler is more than adequate before starting fire.

b. Don't forget, before starting fire, ensure the valves are centered, throttle tightly closed, cylinder cocks are open and a driving wheel is blocked to prevent forward or backward movement.

c. Don't forget to ensure designated lubricants have been furnished to all lubrication points on engine and the lubricator has been filled with cylinder oil before leaving the round house for the first time that day. Pay special attention to providing for adequate lubrication of engine and tender axle journals and lateral liners. Lubricator must be refilled with cylinder oil after each time engine has been operated for a distance of sixty scale miles.

d. Don't forget, when using the blower to raise steam from a low pressure gradually close the blower valve as the steam pressure increases in order to maintain a constant moderate draft.

e. Don't forget to ensure lowest pressure set pop, injector or injectors and engine brakes are functioning correctly before attempting to move engine under steam for the first time that day.

f. Don't forget, before attempting to move engine, to first work the water out of cylinders and steam ways as much as possible, thereby preventing possible damage to engine by hydraulic pressure.

g. Don't wait until you get the signal to pull out before you build up the fire. This should be done gradually until the proper thickness has been reached. A good fire to start with is essential to maintain the proper steam pressure while engine is working hard getting train under way. Afterwards distribute the coal evenly on the fire. Always avoid shoveling coal so far forward that it blocks the lowest boiler tubes. Do this systematically. Also keep in mind where you have placed the last shovel of coal, thus avoiding holes in fire, and preventing piling coal in one place.

h. Endeavor to keep the steam pressure uniform with the least black smoke possible. At all times the presence of black smoke should be avoided. Avoid putting in coal about the time the engine is shut off for stations or on approaching targets where a stop may be necessary. Heavy black smoke is evidence that engine personnel are not practicing economy. Keep yourself in touch as to the condition of the fire and ash pan at all times. If this is not your present practice, try it, and note the difference.

i. Don't shovel dry slack coal on fire while engine is working hard in order to avoid unnecessary waste of coal. Drench coal on tank with water if coal loaded has high slack content.

j. Don't rake or poke fire excessively, but do so in a restrained manner when necessary to break up fused masses of coal. Avoid raising ash to top of fire thereby reducing the likelihood of formation of clinkers. It is good practice to rake or poke fire only when engine is shut off and with light blower in order to minimize sparks.

k. Don't forget, when starting and stopping trains, to do so carefully, thus preventing damage to draft rigging and cars. By so doing you will save serious delay to your own as well as other trains.

l. Don't allow engine to slip. This is an unnecessary waste of coal, and generally results in serious damage to rails, tires, pins, and valve gear, and may spoil your fire.

m. Don't at any time leave the reverse lever down in the corner longer than necessary. No rule can be made to govern as to just how the throttle and reverse lever should be used. This must be determined by practice and observation as to performance of the engine.

- n. Don't put an excessive quantity of fresh coal on fire at one time. Add fresh coal in smaller quantities at more frequent intervals instead in order to reduce the fluctuation of fire box temperature. Also fire as light as possible consistent with your work.
- o. Don't forget that, while the fire door is open, the temperature in fire box is being rapidly reduced by the inrush of cold air above the fire. This emphasizes the importance of closing the door after each scoop of coal.
- p. Don't allow steam to escape at pops unnecessarily. Frequent blowing off at pops shows improper judgment, and implies that engine personal are not practicing economy. Tests have demonstrated that (in full scale practice) 1/4 lb. of coal per second, or 15 lbs. per minute, is wasted. This amounts to about one scoop full, and in most cases may as well have been thrown out on the ground. There are only 133 scoopfuls in a ton of coal so you can see that you would only have to have your pops open (in full scale practice) 133 minutes a day to throwaway a ton of coal.
- q. Don't forget to start injector if pops are about to release, although the foregoing is subordinate to not over filling boiler.
- r. Don't permit the water to get so high in boiler that it is carried over into valves and cylinders.
- s. Don't forget to put on the blower lightly just before engine is shut off, and then open fire box door slightly if necessary to carry off black smoke.
- t. Don't blame engine or coal if engine is not steaming properly before you have ascertained whether you are doing your duty. You may know of engineers that have better success than others with the same engine and conditions. Think a little; there must be some cause for this.
- u. Don't permit the steam pressure to get so low in boiler that the injector cannot be made to function to supply feed water to boiler.
- v. Don't forget to review the document ["Fundamentals of Steam Locomotive Boiler Water Level Management and Rules Applicable to Steam Locomotives Operated Under the Jurisdiction of the Lake Forest Live Steamers Railway Museum and Deerfield and Roundabout Railway"](#) in order to gain a complete understanding of the subject.
- w. Don't forget to anticipate the variation of the level of water above crown sheet of boiler that occurs when engine moves from level track to an increasing or decreasing track gradient or moves from one track gradient to a track gradient of opposite direction, etc., etc.
- x. Don't forget to open and close the water glass blow down valve frequently to insure steam and water passages leading to the water glass are clear of obstructions and to assist, when necessary, in ascertaining the level of water in boiler.
- y. Don't put more coal on tank than will lie on it securely. The coal dropped off by overloading is dangerous and wasteful. Also keep coal from falling out of gangway or off cab deck when running. This may be only a little each day. You cannot save coal by the ton; it must be in pounds, which in time make tons.
- z. Don't run light engines at high speed, but in the most economical way, particularly when they are being moved backwards or to equalize power.
- aa. Don't forget to make a thorough inspection of engine and tender before leaving, and after arriving at terminals; also as much as possible while going over the road. Make a complete report to the proper authorities upon arrival at round house at end of day of any defects or unusual conditions discovered while on duty.
- Rule 986, Engineer "Don'ts" based on the Chicago and Western Indiana Railroad Co. Rules and Regulations of the Operating Department, effective July 1, 1913.

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