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**STANDARD PREPARATION AND
DISPOSAL DUTIES**

FOR

**2,000 H.P. DIESEL ELECTRIC PULLMAN TRAINS
(6-CAR AND 8-CAR UNITS)**

**STANDARD PREPARATION DUTIES FOR
2,000 H.P. DIESEL ELECTRIC PULLMAN TRAINS.
A L.M.R. 6-CAR UNIT.**

1. ENTER DRIVING CAB

- (a) Deposit personal gear and equipment and check that hand-brake is ON.
- (b) Check that detonator case is intact and three portable fire extinguishers in position. Check that A.W.S. and Deadman's isolating cocks are sealed.
- (c) Insert control switch key in driver's desk and turn.

2. PROCEED TO GENERATOR ROOM

- (a) Check in low tension cubicle that the engine isolating switch is in NORMAL position.
 - (b) Check earth isolating switch is in NORMAL position and sealed.
 - (c) Check compressor isolating and compressor synchronising switches are closed (in the DOWN position).
 - (d) Check battery charging switch is in GENERATOR position.
3. (a) Check in high tension cubicle that the traction motor cut out switch is in ALL MOTORS IN position.
- (b) Close battery isolating switch.
 - (c) Check that all traction motor trips show SET.

4. RETURN TO ENGINE ROOM

- (a) Check contents gauges of cooling water and fuel service tanks.
- (b) Check electrical connections to fire bottles are intact.
- (c) Test fire alarm bell.
- (d) Press local start button, release when engine fires and tachometer reads approximately 700 r.p.m. (If the engine does not fire, the start button may be pressed once again before reporting the difficulty to the Maintenance Staff. Pause ten seconds before making second attempt to start).

5. PROCEED TO OTHER END OF TRAIN, TAKING KEYS EXCEPT CONTROL SWITCH KEY.

Check on the way that all pipes and jumper connections between coaches are intact and secure, and check fuel contents gauge, and test fire alarm for auxiliary engine.

6. ENTER REAR DRIVING CAB

- (a) Check that handbrake is ON.
- (b) Check that detonator case is intact and three portable fire extinguishers in position.
- (c) Check that A.W.S. and Deadman's isolating cocks are sealed.

7. PROCEED TO GENERATOR ROOM

- (a) Check in low tension cubicle that the engine isolating switch is in **NORMAL** position.
 - (b) Check earth isolating switch is in **NORMAL** position and sealed.
 - (c) Check compressor isolating and compressor synchronising switches are closed (in the **DOWN** position).
 - (d) Check battery charging switch is in **GENERATOR** position.
8. (a) Check in high tension cubicle that the traction motor cut out switch is in **ALL MOTORS IN** position.
- (b) Check battery isolating switch.
 - (c) Check that **all** traction motor trips show '**SET**'.

9. RETURN TO ENGINE ROOM

- (a) Check contents gauges of cooling water and fuel service tanks..
- (b) Check electrical connections to fire bottles are intact.
- (c) Test fire alarm bell.
- (d) Press local start button, release when engine fires and tachometer reads approximately 700 r.p.m. (If the engine does not fire, the start button may be pressed once again before reporting the difficulty to the Maintenance Staff. Pause ten seconds before making second attempt to start).

10. RETURN TO REAR DRIVING CAB

- (a) Insert reversing handle locking key, air brake valve switch key and move brake handle to **RELEASE AND RUNNING** position. Reset A.W.S. by depressing and releasing reset button.

Check that air reservoir pressure is showing between 110 and 125 lbs. per sq. in. and that brake pipe pressure is showing 70 lbs. per sq. in.

Move brake handle to **FULL SERVICE** position and note brake cylinder pressure builds up to at least 45 lbs. per sq. in. Press high speed brake test button and note that high speed brake indicator lamp lights. The light must go out when button is released. Return brake handle to **RELEASE AND RUNNING** position.

- (b) Depress Deadman's pedal and move reversing handle to Forward or Reverse.

Test Deadman's device by taking foot off pedal and check that after approximately 5 seconds delay the brake pipe pressure falls by at least 30 lbs. per sq. in. and the brake cylinder pressure rises to at least 45 lbs. per sq. in. Depress Deadman's pedal, and after about 22 seconds the brake cylinder pressure must fall to zero and brake pipe pressure must rise to 70 lbs. per sq. in.

- (c) Check that 'Engine Stopped' (Red), 'Alarm' (Blue), lights are DIM, and 'E.P. Brake Indicator' (Green) light is ON.

- (d) Move air brake handle to EMERGENCY position and allow the automatic brake to apply fully.

Turn air brake valve switch key $\frac{1}{2}$ turn anti-clockwise and move air brake handle to SHUT DOWN position, turn switch key anti-clockwise as far as it will go and take out. Move reversing handle to OFF position and take out reversing handle locking key.

Take off handbrake FULLY and switch off lights at Master Switch.

- (e) Close windows and doors.

11. PROCEED TO OTHER END OF TRAIN ON THE OPPOSITE SIDE, TAKING KEYS

Check on the way that all pipes and jumper connections between coaches are intact and secure, and check fuel contents gauge, and test fire alarm for auxiliary engine.

12. ENTER DRIVING CAB

- (a) Insert in driver's desk the reversing handle locking key, and air brake valve switch key.

- (b) Move air brake handle to the RELEASE AND RUNNING position. Reset A.W.S. by depressing and releasing reset button. Check that air reservoir pressure is showing between 110 and 125 lbs. per sq. in. and brake pipe pressure is showing 70 lbs. per sq. in.

Move brake handle to the FULL SERVICE position and note brake cylinder pressure builds up to at least 45 lbs. per sq. in.

Press high speed brake test button and note that high speed brake indicator lamp lights. The light must go out when button is released. Return brake handle to RELEASE AND RUNNING position.

- (c) Depress Deadman's pedal, then select required direction of travel.

Test Deadman's device by taking foot off pedal and check that after approximately 5 seconds delay the brake pipe pressure falls by at least 30 lbs. per sq. in. and the brake cylinder pressure rises to at least 45 lbs. per sq. in. Depress Deadman's pedal, and after about 22 seconds the brake cylinder pressure will fall to zero and brake pipe pressure will rise to 70 lbs. per sq. in.

13. BRAKE TEST WITH GUARD—(THE LOUDAPHONE SYSTEM TO BE USED FOR THE FOLLOWING TESTS)

- (a) In the rear Guard's compartment the Guard will check that the brake pipe is charged to 70 lbs. per sq. in.
- (b) The Driver places his brake valve handle to LAP.
- (c) The Guard opens his brake valves and reduces the brake pipe pressure to zero, the Driver checks that the brake cylinder pressure rises to at least 45 lbs. per sq. in.; the Guard then closes the valve. On completion of this test, Driver to return

his brake valve handle to RUNNING AND RELEASE position.

- (d) The Driver and Guard will check that the brake pipe pressure is restored to 70 lbs. per sq. in.

14. Move air brake handle to FULL SERVICE position and allow air brake to apply.

Move reverser to OFF position.

Take off handbrake FULLY and note that handbrake indicating light has gone DIM.

Depress Deadman's pedal, select direction of travel.

**STANDARD DISPOSAL DUTIES FOR
2,000 H.P. DIESEL ELECTRIC PULLMAN TRAINS.
A L.M.R. 6-CAR UNIT.**

1. IN DRIVING CAB

- (a) Move air brake handle to EMERGENCY position and allow the automatic brake to apply fully.

Turn air brake valve switch key $\frac{1}{2}$ turn anti-clockwise and move air brake handle to SHUTDOWN position, turn switch key anti-clockwise as far as it will go and take out.

Turn control switch key and take out.

Move reversing handle to the OFF position and remove locking key.

- (b) Apply handbrake FULLY.

2. PROCEED INTO GENERATOR ROOM

- (a) Press EMERGENCY STOP button below high tension cubicle door.

- (b) Open battery isolating switch in high tension cubicle.

3. RETURN TO DRIVING CAB

Close windows, switch off lights at MASTER SWITCH and close doors.

4. PROCEED TO REAR DRIVING CAB

Apply handbrake FULLY.

5. PROCEED TO GENERATOR ROOM

- (a) Press EMERGENCY STOP button below high tension cubicle door.

- (b) Open battery isolating switch in high tension cubicle.

6. RETURN TO REAR DRIVING CAB

Close windows, switch off lights at MASTER SWITCH and close doors.

**STANDARD PREPARATION DUTIES FOR
2,000 H.P. DIESEL ELECTRIC PULLMAN TRAINS.
A W.R. 8-CAR UNIT**

1. ENTER THE DRIVING CAB

- (a) Deposit personal gear and equipment and check that hand-brake is ON.
- (b) Check that detonator case is intact and three portable fire extinguishers in position and hand-lamp is correct.
Check that A.W.S. and Deadman's isolating cocks are sealed.
- (c) Insert control switch key in driver's desk and turn.

2. PROCEED TO GENERATOR ROOM

- (a) Check in low tension cubicle that the engine isolating switch is in NORMAL position.
- (b) Check earth isolating switch is in NORMAL position and sealed.
- (c) Check compressor isolating and compressor synchronising switches are closed (in the DOWN position).
- (d) Check battery charging switch is in GENERATOR position.

- 3.** (a) Check in high tension cubicle that the traction motor cut out switch is in ALL MOTORS IN position.
- (b) Close battery isolating switch.
 - (c) Check that all traction motor trips show SET.

4. RETURN TO ENGINE ROOM

- (a) Check contents gauges of cooling water and fuel service tanks.
- (b) Check electrical connections to fire bottles are intact.
- (c) Test fire alarm bell.
- (d) Press local start button, release when engine fires and tachometer reads approximately 700 r.p.m. (If the engine does not fire, the start button may be pressed once again before reporting the difficulty to the Maintenance Staff. Pause ten seconds before making second attempt to start).

5. PROCEED TO OTHER END OF TRAIN, TAKING KEYS EXCEPT CONTROL SWITCH KEY

Check on the way that all pipes and jumper connections between coaches are intact and secure, and check fuel contents gauges and test fire alarm for auxiliary engine.

6. ENTER REAR DRIVING CAB

- (a) Check that handbrake is ON.
- (b) Check that detonator case is intact and three portable fire extinguishers in position and handlamp is correct.
- (c) Check that A.W.S. and Deadman's isolating cocks are sealed.

7. PROCEED TO GENERATOR ROOM

- (a) Check in low tension cubicle that the engine isolating switch is in **NORMAL** position.
 - (b) Check earth isolating switch is in **NORMAL** position and sealed.
 - (c) Check compressor isolating and compressor synchronising switches are closed (in the **DOWN** position).
 - (d) Check battery charging switch is in **GENERATOR** position.
8. (a) Check in high tension cubicle that the traction motor cut out switch is in **ALL MOTORS IN** position.
- (b) Close battery isolating switch.
 - (c) Check that **all** traction motor trips show **SET**.

9. RETURN TO ENGINE ROOM

- (a) Check contents gauges of cooling water and fuel service tanks.
- (b) Check electrical connections to fire bottles are intact.
- (c) Test fire alarm bell.
- (d) Press local start button, release when engine fires and tachometer reads approximately 700 r.p.m. (If the engine does not fire, the start button may be pressed once again before reporting the difficulty to the Maintenance Staff. Pause ten seconds before making second attempt to start).

10. RETURN TO REAR DRIVING CAB

- (a) Insert reversing handle locking key, air brake valve switch key and move brake handle to **RELEASE AND RUNNING** position.

Check that air reservoir pressure is showing between 110 and 125 lbs. per sq. in. and that brake pipe pressure is showing 70 lbs. per sq. in.

Move brake handle to **FULL SERVICE** position and note brake cylinder pressure builds up to at least 45 lbs. per sq. in.

Press high speed brake test button and note that high speed brake indicator lamp lights. The light must go out when button is released. Return brake handle to **RELEASE AND RUNNING** position.

- (b) Depress Deadman's pedal and move reversing handle to Forward or Reverse.

Allow A.W.S. siren to sound and after three seconds delay note that the brake pipe pressure falls by at least 30 lbs. per sq. in. and brake cylinder pressure rises to at least 45 lbs. per sq. in.

Place A.W.S. In/Out of Use switch to **IN USE** position when A.W.S. indicator must show **IN USE** and re-set A.W.S. by depressing and releasing re-set button. After a short delay the brake cylinder pressure must fall to zero and brake pipe pressure must rise to 70 lbs. per sq. in.

Test Deadman's device by taking foot off pedal and check

that after approximately 5 seconds delay the brake pipe pressure falls by at least 30 lbs. per sq. in. and the brake cylinder pressure rises to at least 45 lbs. per sq. in. Depress Deadman's pedal, and after about 22 seconds the brake cylinder pressure must fall to zero and brake pipe pressure must rise to 70 lbs. per sq. in.

- (c) Check that 'Engine Stopped' (Red), 'Alarm' (Blue) lights are DIM, and 'E.P. Brake Indicator' (Green) light is ON.

- (d) Move air brake handle to EMERGENCY position and allow the automatic brake to apply fully.

Turn air brake valve switch key $\frac{1}{2}$ turn anti-clockwise and move air brake handle to SHUT DOWN position, turn switch key anti-clockwise as far as it will go and take out.

Move reversing handle to OFF position and take out reversing handle locking key.

Place A.W.S. switch to OUT OF USE position when A.W.S. indicator must show OUT OF USE.

Take off handbrake FULLY and switch off lights at Master Switch.

- (e) Close windows and doors.

11. PROCEED TO OTHER END OF TRAIN ON THE OPPOSITE SIDE, TAKING KEYS

Check on the way that all pipes and jumper connections between coaches are intact and secure, and check fuel contents gauges, and test fire alarm for auxiliary engine.

12. ENTER DRIVING CAB

- (a) Insert in driver's desk the reversing handle locking key and air brake valve switch key.

- (b) Move air brake handle to the RELEASE AND RUNNING position. Check that air reservoir pressure is showing between 110 and 125 lbs. per sq. in. and brake pipe pressure is showing 70 lbs. per sq. in.

Move air brake handle to the FULL SERVICE position and note that brake cylinder pressure builds up to at least 45 lbs. per sq. in.

Press high speed brake test button and note that high speed brake indicator lamp lights. Return brake handle to RELEASE AND RUNNING position. The light will go out when button is released.

- (c) Depress Deadman's pedal, then select required direction of travel.

Allow A.W.S. siren to sound and after 3 seconds delay note that the brake pipe pressure falls by at least 30 lbs. per sq. in. and brake cylinder pressure rises to at least 45 lbs. per sq. in.

Place A.W.S. In/Out of Use switch to IN USE position when A.W.S. indicator must show IN USE, and re-set by depressing and releasing re-set button. After a short delay

the brake cylinder pressure must fall to zero and brake pipe pressure rise to 70 lbs. per sq. in.

Test Deadman's device by taking foot off pedal and check that after approximately 5 seconds delay the brake pipe pressure falls by at least 30 lbs. per sq. in. and the brake cylinder pressure rises to at least 45 lbs. per sq. in. Depress Deadman's pedal, and after about 22 seconds the brake cylinder pressure must fall to zero and brake pipe pressure will rise to 70 lbs. per sq. in.

13. BRAKE TEST WITH GUARD—(THE LOUDAPHONE SYSTEM TO BE USED FOR THE FOLLOWING TESTS)

- (a) In the rear Guard's compartment the Guard will check that the brake pipe is charged to 70 lbs. per sq. in.
- (b) The Driver places his brake valve handle to LAP.
- (c) The Guard opens his brake valve and reduces the brake pipe pressure to zero, the Driver checks that the brake cylinder pressure rises to at least 45 lbs. per sq. in.; the Guard then closes the valve. On completion of this test, Driver to return brake valve handle to RUNNING AND RELEASE position.
- (d) The Driver and Guard will check that the brake pipe pressure is restored to 70 lbs. per sq. in.

14. Move air brake handle to FULL SERVICE position and allow air brake to apply.

Move reverser to OFF position.

Take off handbrake fully and note that handbrake indicating light has gone DIM.

Depress Deadman's pedal, select direction of travel.

STANDARD DISPOSAL DUTIES FOR

2,000 H.P. DIESEL ELECTRIC PULLMAN TRAINS.

A W.R. 8-CAR UNIT.

1. IN DRIVING CAB

- (a) Move air brake handle to EMERGENCY position and allow the automatic brake to apply fully.

Turn air brake valve switch key $\frac{1}{2}$ turn anti-clockwise and move air brake handle to SHUT DOWN position, turn switch anti-clockwise as far as it will go and take out.

Turn control switch key and take out.

Move reversing handle to the OFF position and remove locking key.

Place A.W.S. In/Out of Use switch to OUT OF USE position when A.W.S. indicator must show OUT OF USE.

- (d) Apply handbrake FULLY.

2. PROCEED INTO GENERATOR ROOM

- (a) Press EMERGENCY STOP button below high tension cubicle door.

(b) Open battery isolating switch in high tension cubicle.

3. RETURN TO DRIVING CAB

Close windows, switch off lights at MASTER SWITCH and close doors.

4. PROCEED TO REAR DRIVING CAB

Apply handbrake FULLY.

5. PROCEED TO GENERATOR ROOM

(a) Press EMERGENCY STOP button, below high tension cubicle door.

(b) Open battery isolating switch in high tension cubicle.

6. RETURN TO REAR DRIVING CAB

Close windows, switch off lights at MASTER SWITCH and close doors.

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