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दक्षिण पूर्व रेलवे
South Eastern Railway



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TATANAGAR / टाटानगर

दिनांक / Dated, 16.06.2023

To
The Sr. DEE (OP) CKP, ADA, KGP
The DEE (OP) RNC

Sub: - Technical Circular on "CAB CHANGING PROCEDURE IN ELECTRIC LOCOMOTIVES".

Technical circular No.-02/23-24 dated 16.06.2023 issued by ELTC/TATA on "CAB CHANGING PROCEDURE IN ELECTRIC LOCOMOTIVES" is hereby circulated for further necessary action from your end.

Technical Circular No.02/23-24

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CAB CHANGING PROCEDURE IN ELECTRIC LOCOMOTIVES

A. CONVENTIONAL LOCO

i) Single Unit

1. Stop the Train / Loco.
2. Build up MR pressure up to 9.5 Kg/cm² by closing BLC PD.
3. Keep SA-9 on application position; ensure 3.5 kg/cm² pressure in BC gauge and the physical application of Loco brakes.
4. Keep A-9 on release position.
5. Close A-9 and SA-9 inlet and outlet COCs.
6. Close the cab doors and windows before going to other cab.
7. Switch OFF all auxiliary switches, open VCB, lower pantograph, put MPJ to '0', lock BL and remove all loco keys. Proceed to other cab.

In other cab, (which is to be working as leading cab),

8. Keep SA-9 on application position and A-9 on release position.
9. Open A-9 and SA-9 inlet and outlet COCs.
10. Unlock BL, raise pantograph, close VCB and start auxiliaries.
11. Ensure proper function of SA-9 and A-9 after changing cabs every time.
12. Loco brake power test to be done before starting the Loco.

Note: - **On gradient section before leaving the cab, apply hand brakes of loco and apply wooden wedges.**

ii) MU/Consist Unit

Driving Cab

1. Stop the train/loco. Build up MR pressure 9.5 kg/cm².
2. Keep SA-9 on application position and A-9 on Full-service position.
3. Ensure 3.5 kg/cm² pressure in BC gauge and the physical application of Loco brakes.
4. Apply hand brake/ wooden wedges towards falling gradient.
5. Do not change any pneumatic COCs position.
6. Open VCB, switch off all auxiliary switches, lower pantograph, put MPJ to '0', lock BL and remove all the loco keys. Proceed to other loco.

In the other loco (which is to be working as leading loco):

7. Apply loco brake through SA-9 and keep A-9 in release position.
8. Open A-9 and SA-9 inlet & outlet COCs. Ensure BC gauge is showing 3.5 kg/cm².
9. Put MU2B on 'LEAD' position, open BP charging L/T (A-8) cock and open IP-cock.
10. Unlock BL, raise panto, close VCB, start auxiliaries.

Proceed to rear loco,

11. Change MU2B to 'TRAIL' position. Close L/T (A-8) cock, IP cock, inlet & outlet cocks of A-9 and SA-9. Keep A-9 on release position.
12. Close the cab doors and windows.

Then return to leading loco,

13. Check the working of A-9 and SA-9.
14. Release hand brake/ remove wooden wedges of trailing loco, if applied.
15. Before moving loco, conduct loco brake power test.

B. CAB CHANGING PROCEDURE IN 3-PHASE LOCOS:-

i) Single Unit (E-70 & CCB 2.0)

1. Stop the train/loco.
2. Apply Direct brake (SA-9) and ensure BC gauge is showing 3.5kg/cm^2 (5.0kg/cm^2 in WAP-5 Loco).
3. Ensure MR pressure up to 10kg/cm^2 (If required, hold BLCP in 'MAN' position).
4. Open 'VCB' and ensure LSDJ is glowing.
5. Lower the pantograph. Physically ensure it and 'U' meter should show '0'.
6. Move automatic brake (A-9) handle to Emergency position and ensure BP dropped.
- ❖ **In E-70 Brake System** - Put A-9 handle into 'Neutral' position and remove it.
- ❖ **In CCB 2.0 brake system** - i) Move A-9 handle to FS & Lock it by locking pin.
ii) Change the position of MODE switch from LEAD to TRAIL.
7. Operate BL key from 'D' to 'OFF' and remove it.
8. CE will remain ON in Self hold mode for 10mins. Parking brakes will apply (If provided).
9. Release SA-9 handle.
10. Close the doors and windows.
Go to the other cab.
11. Apply direct brake (SA-9).
- ❖ **In E-70 brake system** - Insert A-9 handle in Neutral position and keep it in 'Run' position.
- ❖ **In CCB 2.0 brake system** - i) Change the MODE switch position from TRAIL to LEAD.
ii) Unlock the A-9 handle and bring A-9 handle from FS position to RUN position after LCD display OK to RUN.
12. Operate BL key from 'OFF' to 'D'.
13. Raise pantograph and close VCB as per procedure.
14. Conduct loco brake power test.

ii) Multiple Unit (E-70 & CCB 2.0):

1. Stop the train/loco.
2. Apply Direct brake (SA-9) and ensure BC gauge is showing 3.5kg/cm^2 (5.0kg/cm^2 in WAP-5 Loco).
3. Ensure MR pressure up to 10kg/cm^2 (If required, hold BLCP in 'MAN' position).
4. Open 'VCB' and ensure LSDJ is glowing.
5. Lower the pantograph. Physically ensure it and 'U' meter should show '0'.
6. Move automatic brake (A-9) handle to Emergency position and ensure BP dropped.
- ❖ **In E-70 Brake System** - Put A-9 handle into 'Neutral' position and remove it.
- ❖ **In CCB 2.0 brake system** - i) Move A-9 handle to FS & Lock it by locking pin.
ii) Change the position of MODE switch from LEAD to TRAIL.
7. Keep feed pipe cock "136" in "Close" Position.
8. Operate BL key from 'D' to 'OFF' and remove it.
9. CE will remain ON in Self hold mode for 10mins. Parking brakes will apply (If provided).
10. Release SA-9 handle.
11. Close the doors and windows.
Proceed to the other Loco's leading cab
12. Apply direct brake (SA-9).
- ❖ **In E-70 brake system** - Insert A-9 handle in Neutral position and keep it in 'Run' position.
- ❖ **In CCB 2.0 brake system** - i) Change the MODE switch position from TRAIL to LEAD.
ii) Unlock the A-9 handle and bring A-9 handle from FS position to RUN position after LCD display OK to RUN.
13. Operate BL key from 'OFF' to 'D'.
14. Raise pantograph and close VCB as per procedure.
15. Keep feed pipe cock "136" in "Open" position.
16. Conduct loco brake power test.

Note:

- The control electronics remains in "self-hold mode" for '10' minutes after putting BL key in "OFF" position. Within this time cab changing is to be completed in 3-Phase loco.
- After cab changing ensure the working of A-9 and SA-9 in working cab.
- After cab changing conduct "Loco brake power" test.
- In case of 3 phase locos without parking brakes, on gradient section apply hand brakes of loco and apply wooden wedges, if necessary.