

SOUTHERN RAILWAY
HQ – Loco Operating Instructions No: 22/2026

No. EL/OP/102

Date: 16.09.2026

Sub: Checking of Effectiveness of Hand Brakes of Locomotives.

1. Objective:

To ensure that the hand brakes provided on locomotives are in effective working condition at all times, so that locomotives can be safely secured during stabling, particularly on gradients, and to prevent unintended movement due to ineffective or defective hand brakes.

2. Actionable: While taking over charge of locos from Loco sheds and trip sheds (Trip completed locos), the hand brake effectiveness to be checked by LP/LP shunter as per the following procedure.

SN	Procedure	Three phase Electric Locos	Conventional Electric Locos	Alco Diesel Locos	HHP Diesel Loco
2.1	Keep the loco in level track	Yes	Yes	Yes	Yes
2.2	Apply SA 9, Ensure BC pressure in BC gauge	3.5 kg/cm ²	3.5 kg/cm ²	3.5 kg/cm ²	5.2 kg/cm ²
2.3	Isolate 1 truck power	NA	Yes .	For WDS6 Switch ON TR- Emerg. Switch (TM in 6P combo) For WDG3A/ WDM3A/3D Isolate 5 TMs	For EMD & Siemens control system: Isolate 1 Truck, For Medha Control system: Isolate 4 TMs
2.4	Apply Hand brake Fully(Number of rotation will vary according to brake block to wheel gap)	Apply hand brake fully to maximum possible Rotations. (Approx. 18 to 23 rotations).	Apply hand brake fully to maximum possible Rotations. (WAP4/WAP1-9 to16, WAG7-15 -18 rotations approx)	Apply hand brake fully to maximum possible Rotations. (Approx 20 to 26 rotations)	Apply hand brake fully to maximum possible Rotations. (Approx 55 to 65 rotations)
2.5	Release SA-9 and ensure BC ' 0' Kg/cm ²	Release SA-9 and ensure BC ' 0' Kg/cm ² Ensure BC '0'	Release SA-9 and ensure BC ' 0' Kg/cm ² Ensure BC '0'	Release SA-9 and ensure BC ' 0' Kg/cm ² Ensure BC '0'	For Medha Control system: Release SA-9 and Ensure BC '0' For EMD & Siemens locos : Don't Release SA-9 fully, Keep BC '1.0 Kg/Sq cm'
2.6	Check Hand brake effectiveness by Giving traction*	Loco should not move till 20 KN TE	Loco should not move on 1 st Notch	Loco should not move on 1 st Notch	Loco should not move on 1 st Notch
2.7	Ensure brake cylinder piston is in applied condition at hand brake location. Check gripping of brake block against wheel by shaking the brake block physically.				

3. Target Groups:

- 3.1 All LPs/ALPs/LP(Shg.) and **CLIs to counsel all crews & witness physically on the loco**, same to be recorded in the CMS.
- 3.2 All SSE/loco shed, SSE/JE trip shed to ensure locos are turned out meeting the above.

4. Responsibilities:

All Sr.DEE/Ops, DEE/Ops and ADEE/Ops for compliance.
All Electric sheds SrDEEs, SrDME/DME/ADME/ Diesel sheds.

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Copy to: PCEE, PCSO, CEDE, CME/D&DM – for kind information.