

**CRSE(Coaching),  
All Zonal Railways.**

**Sub: Request for sharing Field issues/ Tests that could be undertaken using the 30 Coach LHB Air Brake Test Rig at Air Brake Lab of Testing Directorate, RDSO.**

Testing Directorate, RDSO has recently commissioned the 30 Coach LHB Air-Brake Test Rig after upgrading the earlier-available 30 ICF Coach Air-Brake Test Rig in Air Brake Lab, RDSO.

The LHB Air Brake Test Rig, is equipped to undertake the following types of Tests:

- i. Performance & Endurance Testing of DVs used in the LHB brake system.
- ii. Study (Rate of Rise, Time-taken) of BP, FP & BC pressures, BC piston strokes, Initial Charging Times, Brake Propagation rates, Brake Release times in LHB rake with:
  - a. different number of coaches (up to 30 LHB Coaches).
  - b. in single pipe/ twin pipe configuration.
  - c. Air leakages/ Air loss simulating ( BP/ FP drop in the rake through orifice plates of different sizes or by providing different sizes of chokes on brake pipe.
  - d. Different rates of FP air consumption (to simulate air utilisation for Secondary Air Springs, Bio-Vac toilets, pneumatic compactors & similar on-board pneumatically operated equipment)
  - e. Impact/ Effect of Brake accelerator unit not working or defective.
  - f. Brake characteristics test by Alarm Chain Pulling from single/multiple coaches.
  - g. Effect of leak rate more than standard leak rate of  $0.25 \text{ kg/cm}^2/\text{min.}$ , in BP/FP line on brake characteristics
  - h. Effect of overcharging of BP/CR on brake characteristics.
- iii. Comparative study of performance of different LHB Brake components.
- iv. Simulation of train parting between two adjacent LHB Coaches
- v. Performance evaluation of EOTT in LHB Rake upto 30 coaches.

While Testing dte, RDSO is undertaking some tests on the LHB Air Brake test rig, by simulating different LHB Air Brake scenarios, it is requested that based on actual field experiences during operations of LHB rakes, the issues/ un-usuals/ detentions being faced/ reported in Air Brake system of LHB coaches be kindly referred to RDSO (Carriage Dte & Testing Dte), so that simulations/ tests using the now-available Air brake test rig can be planned & the results + possible solutions/ trouble-shooting, recommended maintenance-related preventive action that could be taken can be shared with ZRs.

Team-members from ZR's, managing Air Brake systems in LHB coaches are welcome to visit the Air Brake Lab, RDSO to share inputs/ details on possible tests/ simulations that could be undertaken on the LHB air Brake Test Rig.

DA: Nil

Executive Director/Testing

Copy for kind info:

- PCME's, ZR's
- ED/Carriage, RDSO: With request to pls refer tests that could be done on the LHB Air Brake Rig.