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भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226011
Government of India-Ministry of Railways
Research Design & Standards Organisation
Lucknow - 226011



No.EL/3.2.19

Dated 17/19.05.2000

Chief Electrical Engineer,

- Central Railway, Mumbai CST- 400 001.
- Eastern Railway, Fairlie Place, Calcutta- 700 001
- East Central Railway, Chandrashekharpur, Bhubaneshwar- 751 001.
- Northern Railway, Baroda House, New Delhi-110 001
- North Central Railway, Hasting Road, Allahabad-211 001.
- Southern Railway, Park Town, Chennai-600 003
- South Central Railway, Rail Nilayam, Secunderabad -500 371
- South Eastern Railway, Garden Reach, Calcutta-700 043
- South Western Railway, Bangalore - 560 046
- Western Railway, Churchgate, Mumbai -400 020
- West Central Railway, Jabalpur
- New Zone Railway, Bilaspur
- Chittaranjan Locomotive Works, Chittaranjan- 713 331

TECHNICAL CIRCULAR No. ELRS/TC/0062-2000/Rev.'0'

Sub: Results of brake power retention test carried out on a 24 coach air brake simulated passenger train in Air Brake Laboratory in RDSO.

Ref: Mechanical.Engineering Report No.MT-227 of April -2000.

Problems of run away of trains , specially on down graded section due to depletion of brake power in case of failure of locomotive has been reported by Railways. Tests were carried out on a 24 coach air brake passenger simulated train in the Air Brake Laboratory in RDSO. The objectives of the test were to find out extent of brake power on a 24 coach air brake passenger simulated train under following conditions ;

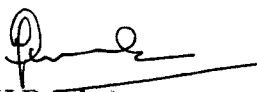
- (i) Once brakes are applied immediately after failure /shut down of locomotive, how long they will remain applied.
- (ii) In case of locomotive failure/shut down, if driver applies brake after BP pressure has dropped due to leakage, the level of brake power available on stock.

Conclusions from the Test Results :

1. Emergency brake application time of 1st & 24th coach were found 8 & 18 seconds respectively.
2. Under normal circumstances, the brakes remains applied even upto 15 hrs. after brake application. However, in case of defect in distributor valve, leakage in pipe, cut out cock, brake cylinder etc., the BP pressure in a particular coach may drop down to '0' even within 30 minutes.
3. In case brakes are applied by the driver after BP pressure has dropped down to even 1.38 kg/cm² due to leakage, the brake power to the extent of about 1 kg/cm² brake cylinder pressure remains available in full train i.e brake remains still effective to certain level.

It is requested that all operating units of the divisions working under your respective control may kindly be advised accordingly to make use of above information.

Encl.: Nil


(O.H.Pande)
for Director General/Elect.

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