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भारत सरकार — रेल मंत्रालय अनुसंधान अभिकल्प और मानक संगठन लखनऊ — 226011 Government of India - Ministry of Railways

Research, Designs & Standards Organization, LUCKNOW - 226011

No. EL/3.1.35/2 Date: 27-12-2002

General Manager (Electrical)

- 1. Northern Railway, Baroda House, New Delhi-110 001.
- 2. East Central Railway, Hazipur, Bihar, Pin 844101
- 3. Chittaranjan Locomotive Works, Chittaranjan-713331.

Modification Sheet No. ELRS/MS/0320

- 1.0 **Title**: Raising of height of battery box from rail level on WAP-5 & WAP7 locomotives.
- 2.0 **Object**:
- 2.1 Northern Railway has reported the problem of damage of battery boxes on WAP5 locomotives due to flying ballasts hitting battery box at high speeds. Similar problem may arise on WAP7 loco also working high speed trains.
- 2.2 Battery boxes on underframe on WAP-5 & WAP-7 locomotives with new wheel have a clearance of 180 mm from the rail (Reference ABB's drawing no. IA-061-00112 & IB-061-00160). This clearance will go down to 140 mm on locos with fully worn wheels. This is considered inadequate for high speed locomotives because of problem of flying ballast hitting the battery box. Electric Loco Shed, Ghaziabad has proposed increase in height of the battery box above rail level from the existing 180 mm to 252 mm. In fact the modification has been carried out on 2 WAP-5 locos and this has helped in avoiding damage of battery box on line..
- 2.3 The raising of the height of the battery box has been done by reducing the height of the hangers of battery box. Height of hangers would be 108 mm in place of 180 mm of existing hangers and this will increase the height of battery box above rail level from 180 mm to 252 mm.

- 3.0 Work to be done: Both battery boxes in WAP-5 & WAP-7 locomotives should be provided with modified langers as per RDSO's drawing not SKEL-4666 in lieu of the existing hangers. This work may be done during MOH/IOH of WAP-5 & WAP-7 locomotives by ELS/GZB and ELS/GMO respectively and during manufacture of new locos by CLW.
- 4.0 Application on the class of locomotive: WAP-5 & WAP-7 class of electric locomotives.
- 5.0 Materials required: Modified hangers as per RDSO's drawing no. SKEL-4666.
- 6.0 Materials rendered surplus: Existing hangers.

Hanger 2 (IA 061-00149) – 3 nos per battery box. Hanger 1(IA 061-00148) – 1 no per battery box

- 7.0 **Reference**: Sr. DEE/ELS/GZB's letter no. 230-Elect/TRS/GZB/T-130 Misc dt 1-4-2002.
- 8.0 Modified drawing: RDSO's drawing no. SKEL-4666.
- 9.0 Agency for implementation: 1. Electric loco shed, N. Railway, Ghaziabad.-201001
 - 2. Electric Loco Shed, E.C. Railway, Gomoh. 828401
 - 3. Chittaranjan Locomotive works, Chittaranjan-713331

for Director General Std/Elect

DA: Drawing

CC: 1. Sr. DEE/TRS, Electric Loco Shed, N. Railway, Ghaziabad.

2. Sr. DEE/TRS, Electric Loco Shed, E. C. Railway, Gomoh.

DA: RDSO's Drawing No. SKEL-4666.

(S. Swarup)

for Director General Std/Elect fication for battery box MS/0320 (2,)