Government of India (Bharat Sirker) Ministry of Railways (Rail Mantralaya) Research Designs and Stancards Organisation

Manak Nagar, Lucknow-226011.

No. EL/3.2.127/DB1.

Dated:

-11-1978.

SPECIAL MAINTENANCE INSTRUCTION NO. RDSO/EL.RS/SMI/34

- 1. TITLE:
- 1.1 Cleaning of flexible contacts of traction motors.
- 2. APPLICATION:

WCAM1 and WAM+, WAG1, WAG3, WAG4 locomotives.

3. OBJECT:

Special Maintenance Instruction No.MI/E7/04 has already been issued indicating the maintenance procedure to be adopted for flexible contact assembly. On investigation of failures of flexible contact assembly, it was found that some failures were due to lack of silver plating on knife contacts. It has been observed that some Sheds are using abrasive papers to clean the flexible contacts resulting in the removal of the thin silver plating on the knife contacts of flexible contact assembly. Absence of the silver plating leads to oxidation of the contact face, increased millivolt drop and overheating. Silver oxide and silver sulphide are good conductors and a slight discolouration is not harmful. Abrasive papers must never be used for cleaning silver plated contacts. This SMI is being issued indicating the correct procedure for cleaning of contact assembly.

- 4. DETAILS OF SPECIAL INSTRUCTIONS:
- 4.1 Adjust the gaps as per SMI No. MI/E7/04.
- 4.2 Clean the flexible and silver plated contacts with petrol and non-fluffy cloth.
- 4.3 Observe the condition of silver plating on the knife contact.
- 4.4 Ir case, the silver plating has peeled off or is worn out, as shown by the exposed bronze surface below, replace the contacts with new silver plated contacts. (A separate document will issue regarding reclamation of old contacts by silver plating).
- 5. PERIODICITY OF IMPLEMENTATION:

During schedule inspections of flexible contacts.

6. AGENCY FOR IMPLEMENTATION:

Elec. Loco Sheds, Repair Shops and POH Shops

7. DISTRIBUTION:

As per list attached.

(R.P. Srivastava) for Director General/Elec.

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- 1. TITLE:
- 1.1 Cleaning of flexible contacts of traction motors.
- 2. APPLICATION:

WCAM1 and WAM4, WAG1, WAG3, WAG4 locomotives.

3. OBJECT:

Special Maintenance Instruction No.MI/E7/04 has already been issued indicating the maintenance procedure to be adopted for flexible contact assembly. On investigation of failures of flexible contact assembly, it was found that some failures were due to lack of silver plating on knife contacts. It has been observed that some Sheds are using abrasive papers to clean the flexible contacts resulting in the removal of the thin silver plating on the knife contacts of flexible contact assembly. Absence of the silver plating leads to oxidation of the contact face, increased millivolt drop and overheating. Silver oxide and silver sulphide are good conductors and a slight discolouration is not harmful. Abrasive papers must never be used for cleaning silver plated contacts. This SMI is being issued indicating the correct procedure for cleaning of contact assembly.

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