

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RESEARCH DESIGNS & STANDARDS ORGANISATION**

No. EL/3.2.182

Manak Nagar, Lucknow-226011
Dated 31.5.99

SPECIAL MAINTENANCE INSTRUCTION NO. ELRS/SMI/0209-99 (REV-0).

1. TITLE :

Provision of silicon rubber compound RTV-738 in the terminal box of three phase asynchronous traction motor type 6FRA6068.

2. OBJECT :

Eastern Railway has reported a number of failure of three phase traction motors type 6FRA6068 due to the breakage of terminal bus rods 'U' and 'W' near its brazed lugs in side the terminal box.

This failure has been jointly investigated by the representatives of M/s ADtranz , RDSO, Electric Loco Shed/E.Rly/Gomoh at Electric Loco shed, Gomoh. To over come this failure, RDSO suggested the adoption of additional clamp in the terminal box for binding the 'U' and 'V' terminal with it and letters were sent to CEE/E.Rly. and N.Rly. and also to all manufacturers and M/s Adtranz (Ref. RDSO letter No. EL/3.2.182 dated 3.3.99). This additional clamp is require to be welded in the terminal box in the same way as the existing clamp is being welded.

This problem has been further discussed in details with the traction motor manufacturers and it has been decided to fill up the space of the terminal box with the silicon rubber compound RTV-738 so that these terminal connectors cannot break due to vibrations, in addition to additional supports to be provided as indicated in above paragraph.

This SMI states the process of filling the space of terminal box with silicon rubber compound RTV-738 and to be followed by all three phase traction motor manufacturers during the manufacturing of their new traction motor as well as on traction motors during rewinding.

3. WORK TO BE CARRIED OUT :

- Fill up the space available in the terminal box with silicon rubber compound RTV- 738. Only space between terminal bus rod entry and terminal insulator (on which terminal bus rods are connected) is to be filled up. The level of 'RTV' should be above the terminal bus rods but should not cover the terminal insulator. RTV should not be filled up in the area of terminal box on power cable side.
- Cure as per usual process.

4. APPLICATION :

AC Electric Loco type WAG9 fitted with three phase traction motor type 6FRA6068.

5. MATERIAL REQUIRED : Silicon Rubber compound RTV-738.

6. MATERIAL RENDERED SURPLUS : Nil.

7. REFERENCE : Discussion with TM manufacturers.

8. PERIODICITY OF IMPLEMENTATION :

- During manufacturing of traction motor.
- During rewinding of traction motor.

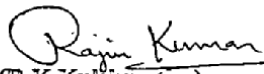
9. AGENCY OF IMPLEMENTATION :

All three phase traction motor manufacturers.

10. DISTRIBUTION : As per enclosed list.

DA: Nil.

SMI/209


(R K Kulshrestha)
For Director General/Elec.