

**Government of India
Ministry of Railways
Research, Designs and Standards Organisation
MANAK NAGAR, LUCKNOW 226011.**

No.L/3.2.82/J2

Dt.13.2.1978.

MODIFICATION SHEET NO.RDSO/WAM4/63

1. TITLE:

Taping of the leads of Traction Motors type TAO 659 to prevent chafing in cleats.

2. APPLICATION OF LOCOMOTIVES:

WAM4.WCAM1.

3. OBJECT:

Railways have reported that the Traction Motor lead cables are sometimes found to be loose in the cleats (1 in sketch) resulting in chafing and damage to insulation. This loose-ness of cables in the cleats also results in loosening of the screws securing the cable lugs in the terminal box and consequent failures. This cleat modification is intended to prevent such failures.

4. REFERENCE TO DRAWINGS:

Sketch showing the cleating arrangement SKEL - 2785.

5. MATERIALS REQUIRED:

Self-amalgamating P1 electrical tape(w) suitable for repairs and joints in polyethylene, PCP and vulcanising rubber cables and self-adhesive approximately 20 mm wide and 0.1 mm thick, or alternatively bondable silicon rubber tape to ASTM 2148.(w) one such tape is manufactured by Messrs Rotunda Limited, Denton, Manchester, England, and has to be imported through their agents Indian cable company, 9, Hare Street, Calcutta-700001.

6. DETAILS OF THE MODIFICATIONS:

- a) Clean the portion of the cable held in the cleat with white sprit.
- b) Wipe dry.`
- c) Build up the cable diameter at the cleat portion as follows:
Apply the cable repair tape under tension such that tape is stretched thin. Apply pressure when apply layer by finger so that the rubber fuses into the layer below.
- d) After building up required thickness, continue to apply gentle wiping pressure with the hand for few minutes in the direction of taping.

- e) Allow to set for four hours.

NOTE : The thickness of taping should be such that the increased cable diameter is about 2 mm more than the diameter's' of the hole in the cleat as shown in sketch No. SKEL - 2785 so that a positive grip on the cables is ensured.

7. **PERIODICITY OF IMPLEMENTATION:**

As soon as possible on all motors and thereafter during every AOH if required on condition basis.

8. **AGENCY TO CARRY OUT WORK:**

Electric Loco sheds.

POH shops.



Encl : sketch SK EL 2785

(V. VENKATESWARAN)
for Director General(Elect.)



