

Government of India
Ministry of Railways
Research, Designs & Standards Organisation
Manak Nagar, Lucknow - 226 011

No. EL/3.2.172

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Modification Sheet No, RDSO/WAG 5/23 (New No. WAG5/237)

1. **Title** : Provision of replaceable bushes in Traction Motor gear case mounting lugs of Traction Motor type HS - 15250A.
2. **Application** : Traction Motor type HS - 15250A.
3. **Object** : Railways have reported that after few years of service, the gear case mounting holes in the magnet frame of Traction Motor type HS - 15250A are becoming oblong/worn out. This is mainly due to the loosening of gear case mounting bolts.

During high speed operation of Electric Locomotives on varying track, the Traction Motors are subjected to high vibration and if the gear case mounting bolts are not fully tightened/improper size of bolts are used for the fixation of gear case, then the gear case of mounting hole in the Traction Motor magnet frame become along /worn out.

This matter was discussed in the Seminar held at BHEL, Bhopal on 4th and 5th of Dec.'95 where RDSO, CLW and Zonal Railways participated and it was recommended to use replaceable bushes in Traction Motor gear case mounting lugs of Traction Motor type HS 15250A.

M/s BHEL has started the use of replaceable bushes on Traction Motor type HS 15250A from S.No.4673295 onwards.

This Modification Sheet furnishes the details of the bushes and also procedure of replacing the same at site whenever necessary.

4.0 Material Required :

- 4.1 Forged bar size dia 90 mm x 45 mm long, as per IS :2004 class 4, machined as per given Fig. No.1 (copy enclosed).
- 4.2 3.5 mm dia Suprathermo Electrodes of M/s D & Seheron or equivalent electrodes.

5. Procedure :

- Remove the tack weld of the bushes and remove the bushes from the holes.
- Clean and deburr from the holes.
- Press fit the bush in the hole maintaining the machined collar with the frame step.
- Tack weld the bush at 4 places on the collar using electrodes as mentioned in Clause 4.2 above. Care to be taken that weld should not project above the collar.

6. Periodicity of Implementation :

- On new Traction Motors.
- Whenever the holes become oblong/worn out.

7. Agency of Implementation :

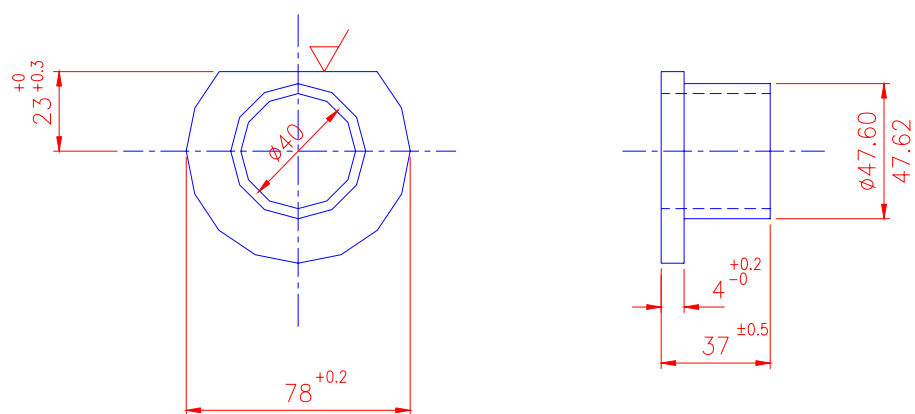
- TM manufacturers
- TM shops
- POH/Repair shops
- Electric Loco Sheds.

8. Distribution : As per enclosed list.



(R. K. Kulshrestha)
for Director General (Elec.)

Encl: As Above.



TM-HS 15250 A
BUSH FOR GEAR CASE LUGS OF MAGNET FRAME

FIG. 1

Dt.	16.2.79
D	
T	
C	