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

No. EL/3.2.5 Dated8.04.1995

Modification Sheet No. RDSO/WAM4/186

1. Title : Modification to the protection screen of pinion end shield and air outlet of magnet frame of TAO 659 Traction Motor.

2. Application :

TAO 659 Traction Motor.

3. Object :

RDSO has issued modification sheet No.RDSO/WAM4/100 & 178 earlier to improve the ventilation to eliminate the insulation failure of armature and field coils of Traction Motor die to higher temperature rise caused by poor ventilation/fully or partly blocking or checking of windows of the expanded metal used on magnet fram air outlet and pinion end shield.

Recently Railways have reported some cases of failure of Traction Motors due to entry of gear case compound/PE bearing grease or water etc. into the Traction Motors.

RDSO has reinvestigated this problem and recommended that zonal railways/production units should follow this modification sheet for their regular production.

This modification supersedes all the earlier modification sheets RDSO/WAM4/100 and 178).

4. Work to be carried out :

4.1 Remove existing expanded metal of mesh size 25x6 mm or punched steel sheet of mesh window size 12 x 12 mm and mild steel sheet of 1.6 mm thick from the pinion end shield and expanded metal of size 50x12.5 mm or 40x12.5 mm from the air outlet of magnet frame.

4.2 Dress up the air outlet windows and ribs of pinion end shields.

4.3 Cut the piece of the required dimension from the punched steel sheet of mesh window size 12x12 mm for pinion end shield as well as for the air outlet of magnet frame with the help of suitable template as per RDSO Drg. No. SKEL–4269, Alt I.

4.4 Cut the piece of mild steel sheet of 1.6 mm thick as per required dimension with the help of suitable template as per RDSO Drg. No. SKEL - 4269 Alt. I.

4.5 Weld the above piece of mild steel sheet on the pinion end shield as per RDSO's Drg. No. SKEL - 4269 Alt. I.

4.6 Tack weld the punched steel sheet as per clause 4.3 above of the required sizes on the pinion end shield as well as on the air outlet of the magnet frame as per RDSO DRg. No. SKEL - 4269 Alt. I.

4.7 After tack welding the punched metal sheet on pinion end shield, a stiffening steel wire of dia 3.15 mm should be stagger welded with pinion end shield along with the punched steel sheet.

4.8 Apply anticorrosive or antitrack varnish of Alsthom 16513 or equivalent on pinion end shield and air outlet of magnet frame.

5. Material Required :

5.1 Mild steel sheet of 1.6 mm thick of required size as per IS 1079-1973 grade ST-34.

5.2 Punched mild steel sheet of mesh opening size 12 mm x 12 mm (outer window size 14x14 mm), 1.6 mm thick as per IS 1079-1973 Grade ST.34.

5.3 Steel wire of dia 3.15 mm half hard as per IS 280-1978.

6. Source of supply :

Railways may procure the material from their existing suppliers.

7. Reference :

RDSO Drg. No. SKEL - 4269 Alt. I

8. Schedule of Implementation :

- For zonal Rlys./Workshops - During overhaul/repair
- CLW/Chittaranjan - on their regular production.

9. Agency of Implementation :

- All Traction Motors/POH shops of Zonal Railways.
- All electric loco sheds.
- CLW/Chittranjan, BHEL and Crompton Greaves Ltd.

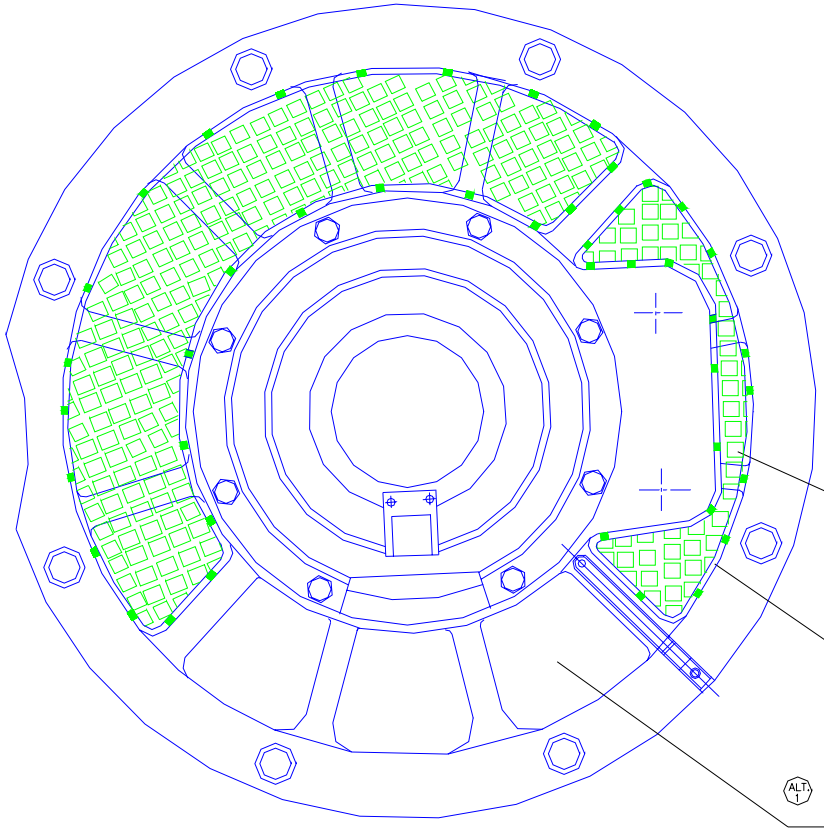
10. Distribution : As per enclosed list.

DA: RDSO Drg. No. SKEL - 4269 Alt.I

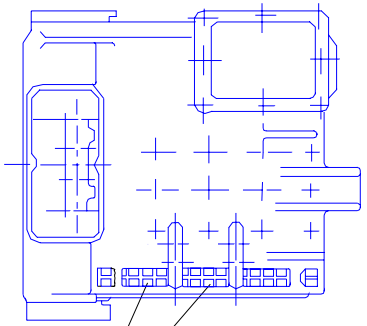
Rajiv Kumar

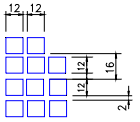
(R. K. Kulshrestha)
for Director General (Elect.)

PINION END SHIELD



MAGNET FRAME





1.6 THICK

EXPANDED METAL DETAILS

REF. No.	PART No.	DESCRIPTION	DETAIL DRG.	No./EMU	MATL.	SPEC.

REF:– CLW DRG NO. ITWD.092.522 | SCALE:– NTS | APPROVED FOR DG

TRACTION MOTOR–TAO–659
MODIFIED ARRANGEMENT OF PROTECTION SCREEN OF PINION END SHIELD AND AIR OUTLET OF MAGNET FRAME

FIRST ISSUED

SUPERSEDES

SUPERSEDED BY

RDSO. ELEC. DTE. | SKEL – 4269

STATUS	ALT.	REF.No.	DESCRIPTION	APPD.BY	DATE
	1		LOWER OPENING HAS BEEN BLOCKED		JAN.95

Dt.	25.11.93
D	
C	
T	