

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RESEARCH DESIGNS & STANDARDS ORGANISATION
MANAK NAGAR, LUCKNOW - 226 011**

No.EL/3.1.3

Dated 30.4/5.5.98

MODIFICATION SHEET NO. RDSO/WAM4/204

1. TITLE :

Modification in the centre hood of 20400 and 20500 series of WAM4 locomotives to prevent water leakage.

2. OBJECT :


- (i) All the 20400 and 20500 series of WAM4 locomotives are provided with flat roof. In spite of implementing RDSO Modification No. RDSO/WAM4/40 of modifying the roof to prevent water leakage, the problem of roof leakage through centre roof on which most of the roof equipment's are mounted exists.
- (ii) Investigations conducted by Perambur Workshop of Southern Railway revealed that water leakage through centre roof in 20400 and 20500 series of locomotives is mainly due to deformation caused by repeated lifting of centre roof by holding at 4 corners by lifting hooks during routine maintenance. As DJ, A33 bushing, HOM, gapless lightening arrestor etc. are mounted on the centre roof, its weight is comparatively more and while lifting it has tendency of getting bent in arc shape upwards.

3. WORK TO BE CARRIED OUT:

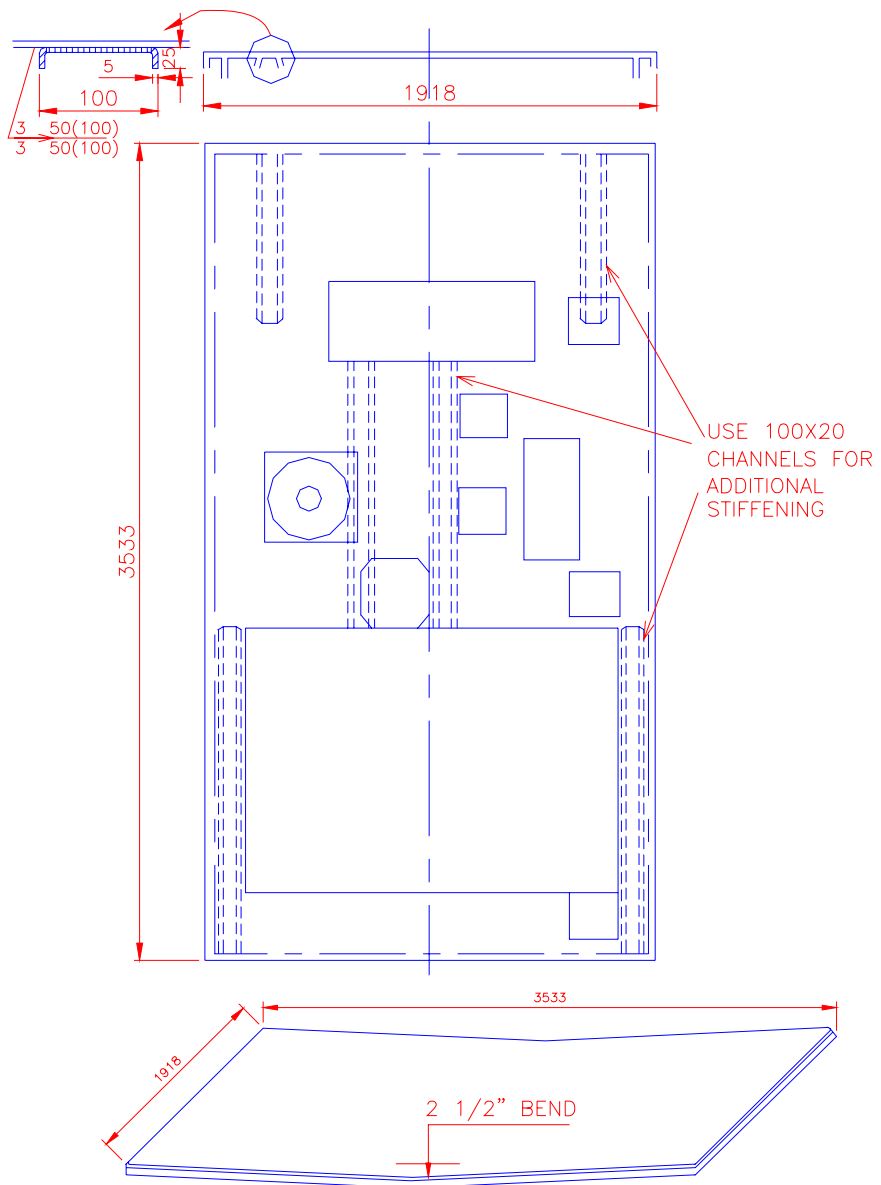
- i The centre roof of WAM4 Locomotives to be removed and to be stripped off all its equipment's.
- ii All transverse ribs welded for providing the strengthening should be removed by gas cutting and roof to be straightened by using gas heating and suitable jigs.
- iii The removed transverse ribs, which were removed above in step (ii), are to be rewelded.
- iv Extra strengthening pieces are to be provided as shown in enclosed RDSO Drg. No. SKEL-4469.

- 4. APPLICATION OT THE CLASS OF LOCUS :**
All 20400 and 20500 series of WAM4 Locomotives.
- 5. MATERIAL REQUIRED :**
100X20 channels for additional stiffening.
- 6. MATERIAL RENDERED SURPLUS :**
None.
- 7. REFERENCE :**
Southern Railway's New Item No. 3 proposed in 25th MSG (Elec. loco) meeting held at Secunderabad on 5th and 6th March `98.
- 8. MODIFICATION DRAWINGS :**
RDSO`S Drg, No. SKEL-4469.
- 9. AGENCY FOR IMPLEMENTATION :**
All Electric Loco Sheds and Workshops.
- 10. DISTRIBUTION :**
As per enclosed list.

Encl: As above
WAM4/204



(O.H. Pande)
for Director General/Elect.



EXISTING FLAT ROOF OVER TRANSFORMER RECEIVED
IN BENT CONDITION

REF :- WAM₄/204

SCALE:- NTS

APPROVED BY-

[Signature]
FOR D.G.

MODIFIED CENTR ROOF OF 20400
AND 20500 WAM-4 LOCOMOTIVES.

RDSO.ELEC. DTE.

SKEL-4469

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| Dt | 22.4.98 |
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