



भारत सरकार – रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ – 226011
Tele/Fax : 2465754
e-mail : dse4group@gmail.com

Government of India - Ministry of
Railways
Research, Designs & Standards
Organization, LUCKNOW - 226011



No. EL/3.1.35/12

Date: As signed

Principle Chief Electrical Engineer,

1. Central Railway, Mumbai CST- 400 001.
2. Western Railway, Churchgate, Mumbai- 400 020.
3. Eastern Railway, Fairlie Place, Kolkata- 700 001.
4. Northern Railway, Baroda House, New Delhi- 110 001.
5. North Eastern Railway, Gorakhpur- 273 001.
6. South Central Railway, Secunderabad- 500 371.
7. Southern Railway, Park Town, Chennai- 600 003.
8. South Eastern Railway, Garden Reach Kolkata- 700 043.
9. North Central Railway, Allahabad- 211 033.
10. North Western Railway, Jaipur- 302 006.
11. West Central Railway, Jabalpur- 482 001.
12. East Coast Railway, Bhubaneswar- 751 023.
13. East Central Railway, Hajipur- 844 101.
14. South East Central Railway-, Bilaspur.
15. South West Railway, DRM's Office, Hubli- 580 028.

MODIFICATION SHEET No. RDSO/2023/EL/MS/0493 Rev. '0', Dated July 2023

1.0 Title: Provision of Additional safety sling for Traction Link of WAP5/WAP7/WAG9 Locomotives.

2.0 Object: Railways have reported cases of falling of Traction Link of WAP5/WAP7/WAG9 Locomotives due to breakage of traction link bolts. As per original design, there are two safety slings provided, one at either ends of traction link to prevent falling of traction link. However, in case of breakage of traction link bolts, if any of safety slings fails, traction link will fall on ground and this may lead to untoward incident. So, it is felt necessary to provide Additional safety sling to give more safety to Traction link. In TC-142 issued by RDSO for reliability action plan, it was instructed to provide additional safety sling. Some of the zonal railways are already providing Additional safety sling in the traction link. CLW requested RDSO for details of how additional safety sling should be provided. This Modification sheet covers the general details of provision of additional safety sling in Traction link.

3.0 Existing Arrangement: There are two safety slings provided at either ends of traction link to support it from falling down to ground in case of breakage of traction link bolts.

4.0 Modified Arrangement: Additional safety sling as per enclosed RDSO drawing no. SKEL-5076 (Latest alteration) will be provided in the middle position of traction link.

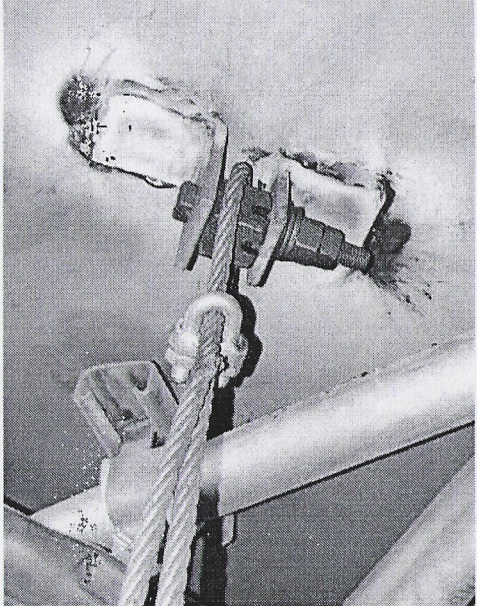
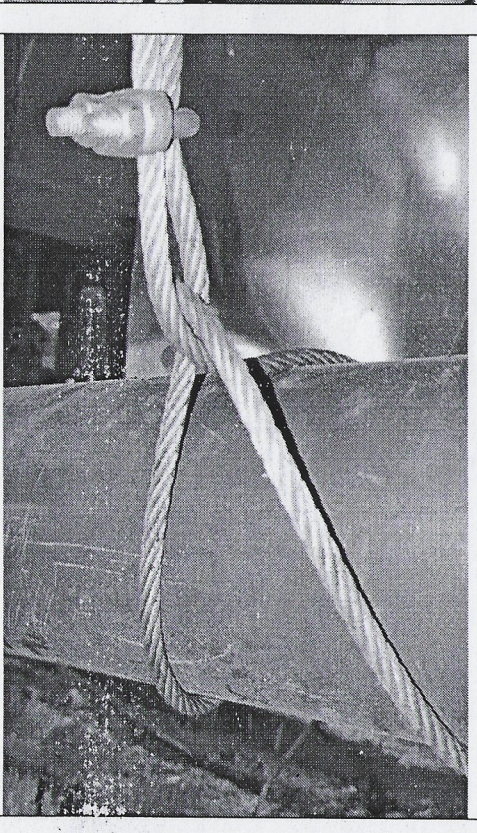
5. Material Required: The details of material used for provision of Additional safety sling for Traction link are given below:-

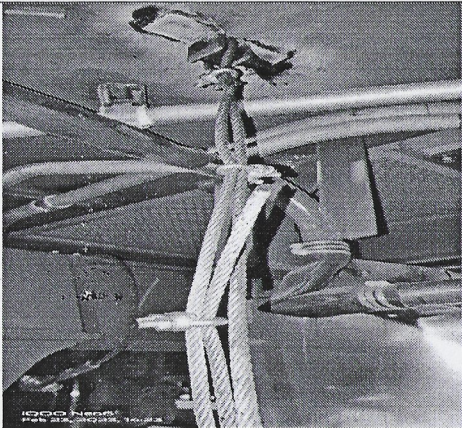
- (i) "L" Clamp as per RDSO Drg. No SKEL-5076 (sheet 2 of 2). 04 Nos.
- (ii) Steel wire rope of size 8.0 mm dia as per IS:2762/1982 -04 meters length.

- (iii) U" Bolt with Ref. No. 2 as per RDSO drawing no. SKEL-5076 (sheet 1 of 2) -08 sets
- (iv) H.T. Hex Head bolt of size M16 X 65mm (Threaded Length 40 mm) Pitch-2mm of P.C. 8.8/10.9 as per IS:1364/1367 with suitable nut and flat washers 02 Sets.
- (v) M24 released lock nut at center of L Clamp 02 Nos.

5.0 Work to be carried out:

The fixing arrangement of additional safety sling for traction link for 3-Phase Electric Locomotives in pictorial representation is given below.

S. No.	PROCEDURE	IMAGE
1	<p>Weld the L-clamps to the body above the mid position of the traction bar as shown in the picture.</p> <p>Connect one end loop of safety sling to L-clamp with M16x65mm bolt with suitable washer and nut.</p>	
2	<p>Tightly wrap the safety sling on the middle portion of the traction bar as shown in the picture.</p> <p>Ensure that between traction bar and L-clamp there is adequate length the safety sling to allow free movement of traction bar.</p> <p>Secure the safety sling with help of U-clamp (bull dog clamps) as shown in picture. U-clamp (bull dog clamps) should be tightened nearest to wrapping so that wrapping does not become loose in due course.</p>	

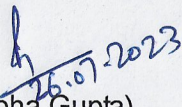
3	Secure the free end of safety sling with help of U-clamp (bull dog clamps).	
---	---	--

6. Application to class of Locomotives : WAP5/WAP7/WAG9 locomotives

7. Material Rendered Surplus: Nil

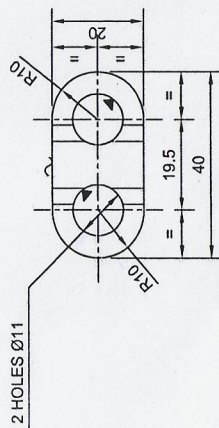
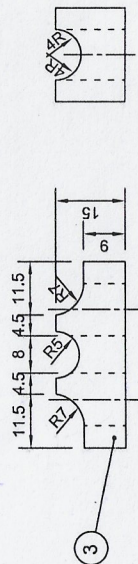
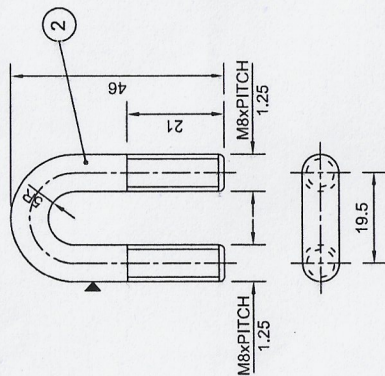
8. Modification Drawing : RDSO drawing no. SKEL-5076 (in two sheets)

9. Agency of Implementation: Modification work will be carried out in shed/workshop premises.


 (Pratibha Gupta)
 for Director General/Electrical

Enclosed: RDSO drawing no. SKEL-5076 (in two sheets)

Copy to: As per standard mailing list




NOTE :-

1. ALL DIMENSIONS ARE IN mm.
2. ONE SAMPLE SHOULD BE GOT APPROVED BY CONSIGNEE BEFORE EFFECTING BULK SUPPLY.
3. ITEM No's 1 TO 5 SHOULD BE HOT DIP GALVANISED
4. WELDING TO PREVENT FLARING OF ROPE ENDS.

5			HEX NUT	16	STEEL	IS:1364
4			SPRING WASHER B8	16	STEEL	IS:3063
3			STRAP PIECE	8	STEEL	IS:1030
2			"U" BOLT	8	STEEL	IS:226
1			STEEL WIRE ROPE DIA 8 mm	2	STEEL	IS:2266
			ADDITIONAL SAFETY SLING ASSLY.	2		
REF. NO.	PART NO.		DESCRIPTION	Qty / Loco	MATL	SPEC.

BILL of Material

REF: AS PER SAMPLE		SCALE : NTS	APPROVED
--------------------	---	-------------	----------

ADDITIONAL SAFETY SLING
(FOR BOGIE TIE ROD)

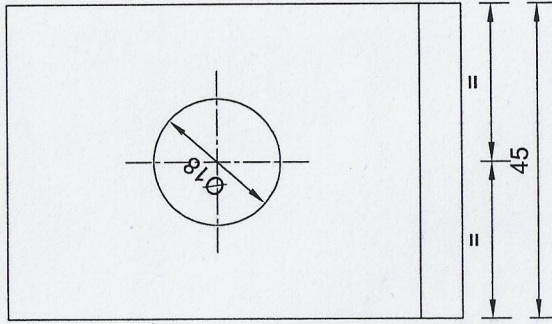
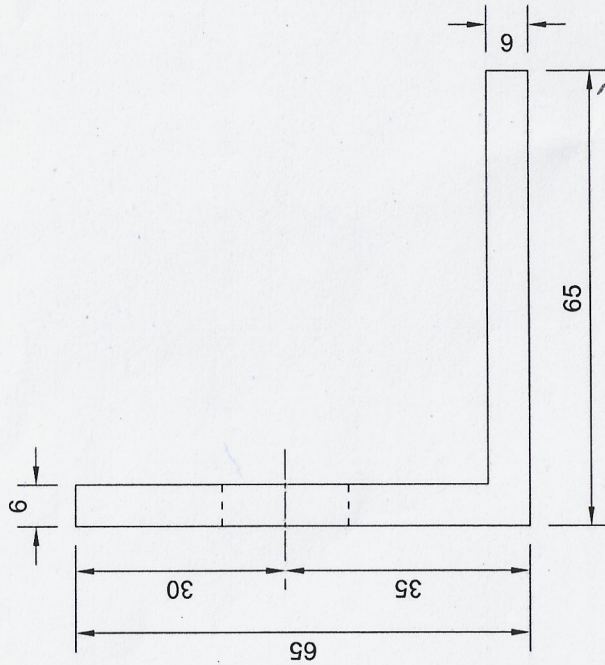
FIRST ISSUED

SUPERSEDES

RDSO.ELECT.DTE.	Drawing No. SKEL - 5076 (Atl.-0) SHEET 1 OF 2	SUPERSEDED BY
-----------------	---	---------------

STATUS	ALT.	REF NO.	DESCRIPTION	APPD BY	DATE		

Dt.	26.7.23
D	Suman
C	Pai



NOTE :-

1. ALL DIMENSIONS ARE IN mm.
2. MATERIAL SHOULD BE MS AS PER IS: 2062.
3. QUANTITY PER LOCO IS 04 NO'S.
4. ONE SAMPLE SHOULD GOT APPROVED BY THE CONSIGNEE BEFORE SUPPLYING THE BULCK QUANTITY.
5. MATERIAL SHOULD ZINC/ PHOSPHATE COATED.

Dt.	26.7.23
D	<i>[Signature]</i>
C	<i>[Signature]</i>

STATUS	ALT.	REF.NO.	DESCRIPTION	APPD BY	DATE

REF: AS PER SAMPLE		SCALE : NTS	APPROVED
'L' CLAMP FOR ADDITIONAL SAFETY SLING (FOR BOGIE TIE ROD)			
FIRST ISSUED			
SUPERSEDES			
RDSO.ELECT.DTE.		Drawing No. SKEL - 5076 (Atl.-0) SHEET 2 OF 2	
		SUPERSEDED BY	