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भारत सरकार - रेल मंत्रालय
अनुसंधान अधिकल्प और मानक संगठन
लखनऊ - 226011
Government of India-Ministry of Railways
Research Design & Standards Organisation
Lucknow - 226011
Dated 14.09.2000



No. EL/3.2.13/1

- Chief Electrical Engineer,
- Central Railway, Mumbai CST- 400 001.
- Eastern Railway, Calcutta- 700 001.
- East Central Railway, Hazipur, Dichi (Bihar)
- East Coast Railway, Bhuvneshwar (Orissa)
- Northern Railway, Baroda House, New Delhi-110 001
- North Central Railway, Hasting Road, Allahabad (U.P.)
- North - Eastern Railway, Gorakhpur
- North West Railway, Jaipur (Rajsthan)
- Southern Railway, Park Town, Chennai-600 003
- South Central Railway, Secunderabad -71
- South Eastern Railway, Garden Reach, Calcutta-700043
- South Western Railway, Bangalore
- Western Railway, Churchgate, Mumbai -400 020
- West Central Railway, Jabalpur
- Chittaranjan Locomotive Works, Chittaranjan -713 3319 (W.B.).

MODIFICATION SHEET NO. ELRS/MS/ 0282, Rev. '0' - 2000

1.0 TITLE :

Provision of modified sanding pipe arrangement for WAP1/4 class of Electric Locomotives.

2.0 OBJECT :

Existing arrangement of sanding pipe in flexi-coil mark-I bogies being used in WAP1/4 class of Electric Locomotives has following problems ;

- More weight.
- Lesser height from the rail top.
- Sanding hose remains in tension.

As a result, it has been Railways' experience that cases of sander bracket/sander pipe getting broken/dropped due to cattle run over are too many in number. During co-ordination meeting held recently with CLW & Railways at Electric Loco Shed/Kanpur on 27.4.2000, a modified design of sander pipe was demonstrated by Kanpur Shed which has been successfully tried on all the WAP class of Electric Locomotives and has been working satisfactorily from last six months. Electric Loco Shed/Jhansi have also confirmed that they had also started using similar arrangement and it is giving good performance. It was, therefore, decided to use this modified arrangement on all flexi-coil mark-I bogies of WAP1/4 class of Electric Locomotives.

3.0 WORK TO BE CARRIED OUT :

The modified drawing of sanding pipe is to be adopted as per RDSO's Drg. No. SKEL 4562, Alt. '0'.

4.0 APPLICATION TO THE CLASS OF LOCOMOTIVES :

WAP1/WAP4 class of Electric Locomotives.

5.0 MATERIAL REQUIRED :

Sanding pipe as per RDSO's Drg. No. SKEL4562, Alt. '0'.

6.0 MATERIAL RENDERED SURPLUS : Existing sanding pipe

7.0 REFERENCE :

Decisions taken in the co-ordination meeting held with CLW & Railways at Electric Loco Shed/Kanpur on 27.04.2000.

8.0 MODIFICATION DRAWING : RDSO's Drg. No. SKEL4562, Alt. '0'.

9.0 AGENCY FOR IMPLEMENTATION :

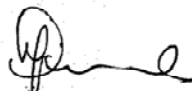
1. All Electric Loco Sheds.
2. All POH Workshops.
3. CLW/CRJ

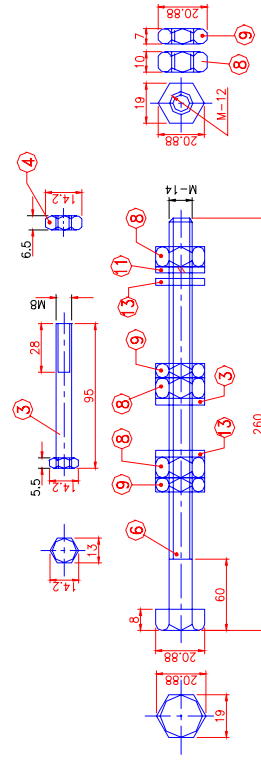
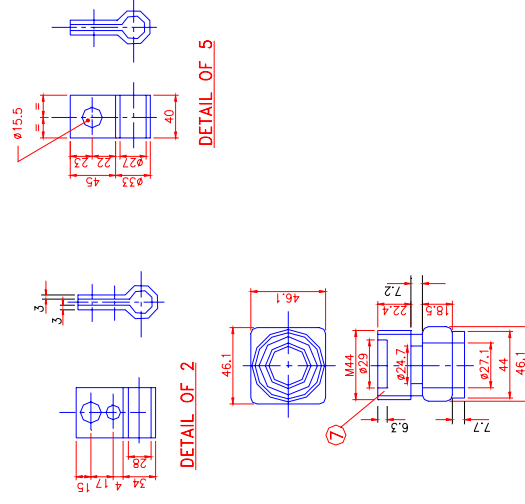
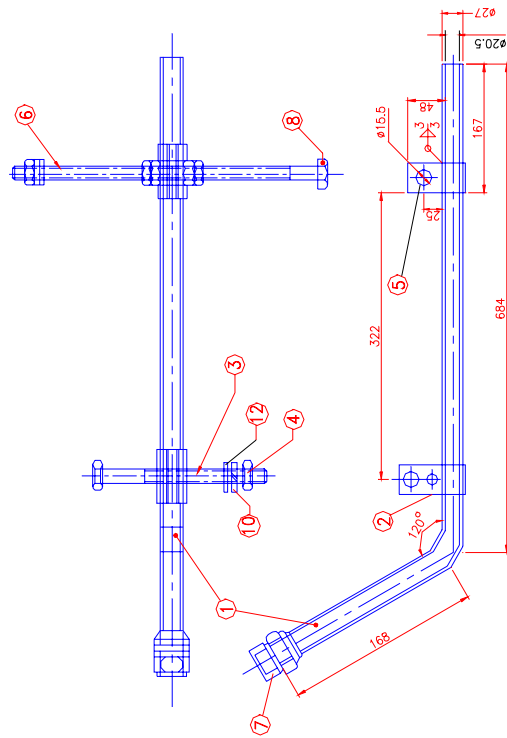
Encl: RDSO's Drg. No. SKEL4562 Alt. '0'. (O.H.Pande)
for Director General/Elect.

Copy to : As per Standard Mailing List No.EL/M/0028, Ver. '0'.

PIN :

Encl: RDSO's Drg. No. SKEL4562 Alt. '0'.


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



REF. No.	REF. No.	PART No.	DESCRIPTION	DETAIL DRG. No.	No./LOCO	APPD. BY	MATL.	SPEC.
13	—	—	PLAN WASHER M-12	—	12	—	STEEL	IS: 1079, 1994
12	—	—	PLAN WASHER M-8	—	4	—	STEEL	IS: 1079, 1994
11	—	—	SPRING WASHER M-12	—	4	—	STEEL	IS: 3063, 1994
10	—	—	SPRING WASHER M-8	—	4	—	STEEL	IS: 3063, 1994
9	—	—	HEXAGONAL LOCK NUT M-12	—	8	—	STEEL	IS: 1363, 1992
8	—	—	DOUBLE CHAMFER HEXAGON NUT M-12	—	12	—	STEEL	IS: 1363, 1992
7	—	—	UNIVERSAL SOCKET -1" GALVANIZED	—	4	—	STEEL	IS: 1239, 1992
6	—	—	HEXAGONAL BOLT M-12	—	4	—	STEEL	IS: 1363, 1992
5	—	—	FIXED CLAMP	—	4	—	STEEL	IS: 2062, 1992
4	—	—	NUT M-8	—	4	—	STEEL	IS: 1363, 1992
3	—	—	BOLT SMALL M-8	—	4	—	STEEL	IS: 1363, 1992
2	—	—	SLIDING CLAMP	—	4	—	STEEL	IS: 2062, 1992
1	—	—	M.S. PIPE GALVANIZED	—	4	—	STEEL	IS: 1239, 1992

NOTE:-

1. ALL DIMENSIONS ARE IN mm.
2. WELDING SYMBOL TO IS: 813, 1991
3. ITEM NO.1 (SAND PIPE IS TO BE ALIGNED WITH THE HELP OF ITEM NO.6 (FULL THREADED BOLT) AND ITEM NO.8 AND 9 (NUT AND LOCK NUT) IN SUCH A WAY THAT SAND ALWAYS FALLS ON THE WHEEL FLANGE AND RAIL INTERACTION POINT.
4. ALL HARDWARE TO BE CADMIUM OR GALVANIZED PLATED.
5. FIXED AND SLIDING CLAMPS ARE TO BE PAINTED.