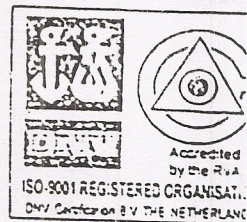


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सत्यमेव जयते

भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226011
Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226011



No.EL/3.2.19

Dated 29.10.2001

5.1)

- Chief Electrical Engineer,
-Central Railway, Mumbai CST- 400 001.
-Eastern Railway, Fairlie Place, Kolkata - 700 001
-Northern Railway, Baroda House, New Delhi-110 001
-Southern Railway, Park Town, Chennai-500 003
-South Central Railway, Rail Nilayam, Secunderabad - 71.
-South Eastern Railway, Garden Reach, Kolkata -700 043
-Western Railway, Churchgate, Mumbai -400 020
-Chittaranjan Locomotive Works, Chittaranjan- 713 331

MODIFICATION SHEET NO.ELRS/MS/0308/2001, REV. '0'

1.0 TITLE :

Modification to prevent damage/breakage/falling of after cooler drain cocks due to external hitting.

2.0 OBJECT :

- 2.1 Presently 2 Nos. of vertically downwards drain cocks are provided at bottom on EMU type after cooler. The clearance of drain cocks from the rail level is less resulting in frequent cases of damage/falling of these drain cocks due to external hitting/cattle run over as reported by the Railways.
- 2.2 After cooler being in the middle of the locomotive underframe, the drain cocks provided are not easily accessible for periodic draining by crew.

This modification sheet attempts to solve both the above problems as suggested and also implemented for trials by GZB Shed of Northern Railway.

3.0 WORK TO BE CARRIED OUT :

- 3.1 Existing drain cock mounted vertically to be removed.
- 3.2 An adapter as per drg. no. SKEL-4605, Alt.'0' (enclosed) to be provided /mounted on drain plug threaded hole at bottom of after cooler.
- 3.3 The existing drain cock removed under item 3.1 above to be mounted horizontally on adapter at the other end.
- 3.4 A clamp is now to be fitted to hold the elbow in its position.

SIC

- 3.5 Two protection plates, one on each side of the drain cock are now to be provided to protect the drain cock from external hitting using bolts provided in the after cooler bottom plate.

Items 3.1 to 3.5 above are to be repeated for each of two after cooler drain cocks. This modification will increase the rail level clearances of drain cocks roughly by 70 mm to safeguard against hitting and will also shift drain cocks towards rail roughly by 115 mm to facilitate accessibility to crew for periodic draining on line.

4.0 APPLICATION TO THE CLASS OF LOCOMOTIVES :

All Electric Locomotives provided with EMU type after coolers as per RDSO's modification Sheet No. RDSO/WAM4/197 dated 4.6.1997.

5.0 MATERIAL REQUIRED :

For each after cooler drain cock, following material will be required ;

- | | | | |
|-----|--------------------------|---|--|
| 5.1 | Elbow ½" x ½" | - | 1 No. (To be prepared by machining a single piece metal block) |
| 5.2 | Protection Plate (L.H.)- | | 1 No. |
| 5.3 | Protection Plate (R.H.)- | | 1 No. |
| 5.4 | Clamp | - | 1 No. |
| 5.5 | Bolt M8 x 10 mm | - | 2 Nos. |

6.0 MATERIAL RENDERED SURPLUS :

None

7.0 REFERENCE :

Suggestion and trial feedback received from GZB Shed of Northern Railway.

8.0 MODIFICATION DRAWING :

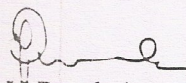
SKEL- 4605, Alt.'0'. (enclosed)

9.0 AGENCY FOR IMPLEMENTATION :

9.1 CLW – for newly manufactured Locomotives.

9.2 Workshops/Electric Loco Sheds – for all the running locomotives.


Encl: As above


(O.H.Pande)
for Director General/Elect.
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| STATUS | ALT. REF. No. | DESCRIPTION | APPROVED BY | DATE |
|--------|---------------|-------------|-------------|------|
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