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भारत सरकार – रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ – 226011
Government of India - Ministry of Railways
Research, Designs & Standards Organization,
LUCKNOW - 226011

No. EL/3.2.19 (G)

Dated: 08/09/2017

Chief Electrical Engineers,

1. Central Railway, Mumbai CST- 400 001.
2. Eastern Railway, Fairlie Place, Calcutta- 700 001
3. Northern Railway, Baroda House, New Delhi-110 001
4. Southern Railway, Park Town, Chennai-600 003
5. South Central Railway, Rail Nilayam, Secunderabad –500 071
6. South Eastern Railway, Garden Reach, Calcutta-700 043
7. Western Railway, Churchgate, Mumbai-400 020
8. East Cost Railway, Chandrashekharapur, Bhubaneswar- 751 016.
9. North Central Railway, Subedarganj, Allahabad-211 001.
10. East Central Railway, Hazipur-844101 (Bihar)
11. West Central Railway, Jabalpur-482068
12. South East Central Railway, Bilaspur-495004
13. North Eastern Railway, Gorakhpur- 273012
14. Chittaranjan Locomotive works, Chittaranjan-713 331

Modification Sheet No. RDSO/2017/EL/MS/0463 (Rev. '0') dated 08.09.2017

1.0 Title:

Provision of Trap Chamber for collecting coal/dust particles coming from BP pipe in A9 - BP circuit in conventional electric locomotives.

2.0 Object:

- 2.1 Zonal Railways have reported line failures of conventional electrical locos on account of heavy air leakage from A-9 exhaust port due to entry of foreign particles (coal, dust etc.) inside the A-9 exhaust valve seat during application of emergency brakes by Loco Pilot through A-9.
- 2.2 The issue was discussed in detail during 38th MSG held at Secunderabad / SCR on 28 & 29 July 2017, and opined that the provision of trap chamber is required in BP pipe line to trap the coal or dust particles entering from the BP pipe line during emergency brake application.

3.0 **Modified Arrangement to trap coal/dust particles is given below:**

Dust/coal
particles
entrapping
arrangement



4.0 **Application to class of locomotives:**

All type of conventional electric locomotives.

5.0 **Material Required:**



5.1 Following material should be as per extant standards used for conventional locomotives. Quantity mentioned below is per loco.

- MS heavy duty union Tee $\frac{3}{4}$ inch- 2 Nos.
- MS heavy duty elbow $\frac{3}{4}$ inch - 2 Nos. (Existing elbow may be used)
- MS heavy duty socket $\frac{3}{4}$ inch -2 Nos.
- MS Dummy plug $\frac{3}{4}$ inch - 2 Nos.
- MS nipple $\frac{3}{4}$ inch- 5" length-02 Nos.
- MS nipple $\frac{3}{4}$ inch- 4" length-02 Nos.

6.0 **Material Rendered Surplus:**

Nil

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7.0 Work to be carried out:

- 7.1 BP pipe line which is connected to A-9 is to be extended before A-9 and made dummy so that the coal or dust particles may be trapped in the chamber. Coal / dust particles entering from the BP pipe during emergency brake application would get accumulated in the trap chamber connected to the extended pipe due to moment of inertia and would not enter into the A-9 Valve. The arrangement of trap chamber is shown in figure under para 3.0. This arrangement should be made in both cabs.
- 7.2 Trap chamber is to be opened during every IC/AOH/TOH/IOH/POH schedules for cleaning or replacement if required.

8.0 Modification Drawing:

The Sketch is enclosed as Annexure-I

9.0 Reference:

- 9.1 Railway Board vide letter no. 2017/Elect(TRS)/138/5 dated 31.08.2017 decided to accept this item (Item no-11) of 38th MSG (Electric Loco) held at Secunderabad, SCR on 28 & 29 July'2017.

10.0 Additional information:


Nil



11.0 Agency of Implementation:

- All Electric Loco Sheds holding tap changer electric locomotives.
- POH & MTR workshops.


Encl: As above


(Aseem Kumar)
for Director General/Elect.

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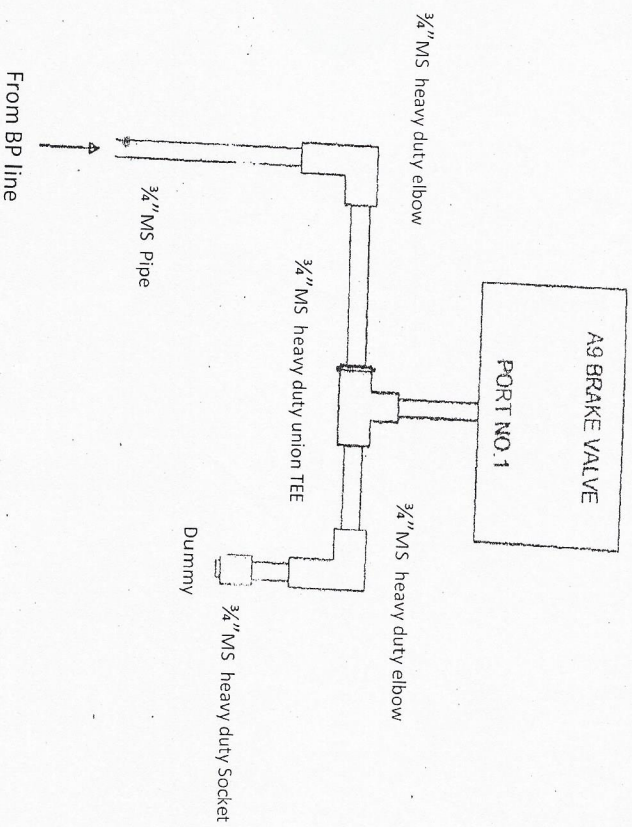
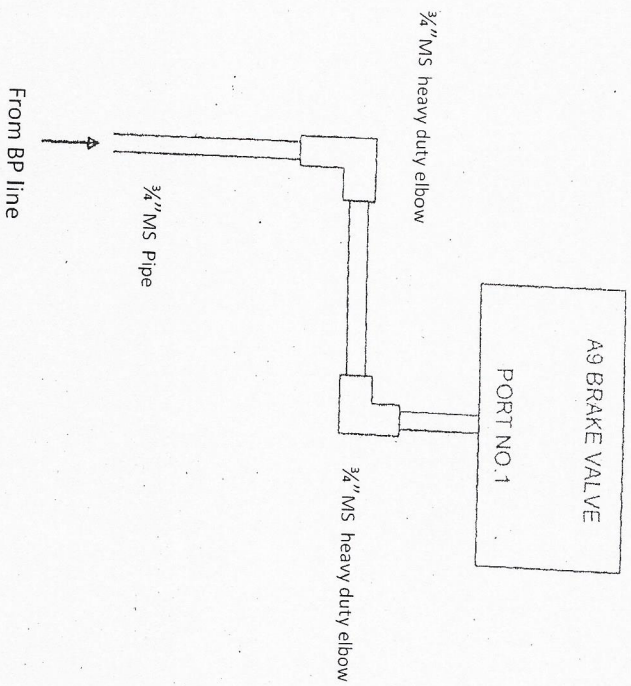
1. Secretary (Electric Traction), Railway Board, Rail Bhavan, New Delhi-110 001
2. Sr. DEE (TRS), All Electric Loco Sheds,

Encl: As above


(Aseem Kumar)
for Director General/Elect.

Annexure to Modification Sheet No.RDSO/2017/EL/MS 463 Rev '0' dated 08.09.2017

A-9 PORT NO.1 MODIFICATION



PRE MODIFIED

MODIFIED