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No. EL/3.1.10/2

Dated: 08.05.2018

Chief Electrical Engineer, 1. Central Railway, Mumbai, CST-400 001. 2. East Central Railway, Hazipur-844 101. 3. East Coast Railway, Chandrashekharpur, Bhubaneswar-751 016. 4. Eastern Railway, Fairlie Place, Calcutta-700 001. 5. North Central Railway, Block-A, Subedarganj, Allahabad-211 033. 6. Northern Railway, Baroda House, New Delhi-110 001. 7. North Western Railway, Jaipur- 302 006 8. North Eastern Railway, Gorakhpur-273001 9. North East Frontier Railway, Maligaon, Guwahati-781011 10. South Central Railway, Secunderabad-500 071. 11. South East Central Railway, Bilaspur-495 004. 12. South Eastern Railway, Garden Reach, Kolkata-700 043. 13. Southern Railway, Park Town, Chennai-600 003. 14. South Western Railway, Hubli- 580020 15. West Central Railway, Jabalpur-482 001. 16. Western Railway, Churchgate, Mumbai-400 020 17. Chittaranjan Locomotive Works, Chittaranjan-713 331 18. Diesel Locomotive Works, Varanasi-221 004	मुख्य विद्युत अभियंता, 1. मध्य रेलवे, मुम्बई सीएसटी -400 001 2. पूर्व मध्य रेलवे, हाजीपुर-844 101 3. पूर्व तटीय रेलवे, चन्द्रशेखरपुर, भुवनेश्वर-751 023 4. पूर्व रेलवे, फेयली प्लेस, कोलकाता-700 001 5. उत्तर मध्य रेलवे, ब्लॉक ए-2, सुबेदारगंज इलाहाबाद - 211 033 6. उत्तर रेलवे, बडौदा हाऊस, नई दिल्ली-110 001 7. उत्तर पश्चिम रेलवे, जयपुर- 302006 8. उत्तर पूर्व रेलवे, गोरखपुर- 273001 9. उत्तर पूर्व फ्रन्टीयर रेलवे, मालीगांव गुवाहाटी-781011 10. दक्षिण मध्य रेलवे, रेल निलायम, शिकंदराबाद-500 371 11. दक्षिण पूर्व मध्य रेलवे, बिलारापुर - 495 004 12. दक्षिण पूर्व रेलवे, गार्डेनरीच, कोलकाता-700 043 13. दक्षिण रेलवे, पार्क टाउन, चेन्नई-600 003 14. दक्षिण पश्चिम रेलवे, हुबली-580020 15. पश्चिम मध्य रेलवे, जबलपुर-482 001 16. पश्चिम रेलवे, चर्चगेट, मुम्बई- 400 020 17. चित्तरंजन रेल इंजन कारखाना, चित्तरंजन - 713 331 18. डीजल रेल इंजन कारखाना, वाराणसी-221004
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MODIFICATION SHEET NO. RDSO/2018/EL/MS/0469 (Rev-0) Dated 08.05.2018

1. Title:

Modification for providing cab AC unit in Electric Locomotives by Zonal Railways.

2. Object:

2.1 Cab Ac units are being provided in Electric locomotive since 2011 by CLW for the comfort of crew. Before the year 2011, all locomotives were turned out without cab AC. However, 837 locomotives (3-phase as well as convention locomotives) were turned out from CLW with A.C. trough for provision of cab AC but without fitment of cab AC on these trough. These troughs were covered with dummy plate to avoid water leakage in Cab. Loco type wise details of such locos are as under:

(i) WAP-4 = 57, (ii) WAG-7 = 97, (iii) WAG-9/9H = 430, (iv) WAP-7 = 194 & (v) WAP-5 = 59.

Therefore, these locomotives provided with AC trough are suitable for provision of cab AC for fitment without any modifications in cab profile.

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2.2 As directed by Railway Board vide letter mentioned in reference Electric Locomotives are to be provided with cab ac unit. In compliance to this the modification sheet is being issued.

2.3 Further as per CLW letter under reference cab AC unit can only be provided in the locomotives turned out from CLW fitted with AC trough since its cab profile has been suitably modified for provisions of cab AC unit on loco roof.

2.4 The object of this modification sheet is to chalk out the scheme for provision of cab AC unit in locos fitted with AC trough.

3. Existing Arrangement:

3.1 Presently two cab heaters and two nos. cab fan for cooling are provided in the cab of conventional as well as three phase locomotives fitted without cab AC unit.

3.2 Locomotives cabs are provided with AC trough with dummy plate for cab AC unit.

4. **Modified arrangement:** The following work is required to be done:

4.1 Remove the dummy plate provided on the roof of locomotives.

4.2 All around 8 mm thick silicon rubber gasket should be providing between trough and air conditioning unit for inlet and return air as per CLW drawing no. CLW/ES/SK-1/A-15.

4.3 Complete AC unit to be fitted on trough with neoprene rubber gasket to prevent ingress of water from outside as per CLW drawing no. CLW/ES/SK-1/A-15.

4.4 While fitment, easy drainage of condensed water from the cab A.C. unit should be checked. Though drainage pipe from the trough to drain out condensed water is already provided by CLW.

4.5 Electric cable for supply of cab AC unit is already provided by CLW in the cab where control unit is to be provided.

4.6 Cable from cab AC to control unit is under the scope of supply of cab AC supplier as per the specification of cab AC unit (Specification No. RDSO/2007/EL/Spec/0055, Rev-1).

4.7 Provide the control units in both the cabs in the location shown in CLW drawing no. 1209-08.130-018 and lay the cable from cab AC to control units through central pillar of cab.

5. Application to class of locomotive:

All existing electric locomotives fitted with AC trough, but without cab air conditioning unit.



6. Material Required:

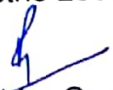
Bill of material attached as annexure-A.

7. Material Rendered Surplus: 4 No. Cab Heater.

8. Reference: (i) Railway Board letter no. 2000/Elect.(TRS)/440/18/15 dated 17.04.2018.

(ii) CLW letter no. ELDD/3257 dated 30.04.2018.

9. Agency of Implementation: All POH workshops/Electric Loco Sheds.


(Pratibha Gupta)

for Director General/Electrical

Encl:

1. Drawing No. CLW/ES/SK-2/A-15
2. Drawing no. CLW/ES/SK-1/A/-15
3. Drawing No. 03/1/35/341
4. Drawing No. 1209-08.130-511
5. Drawing No. CLW.3W.15000.094
6. Drawing No. C-D&D/E/CAB-AC/3ØLOCO/01A & C-D&D/E/CAB-AC/3ØLOCO/01B
7. Drawing No. 1209-08.130-018
8. Annexure-A

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