सत्यमेव जयते

भारत सरकार, रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन,
मानकनगर, लखनऊ&226011
Government of India, Ministry of Railways
Research, Designs & Standards Organisation
Manak Nagar, Lucknow – 226011

दूरभाष/Telephone:
बीएसएनएल/BSNL:91-522-2465731
रेलवे/Railway: 42804
फैक्स/Fax : 91-0522-2465731
ई मेल/E-mail : dtiohed.rdso@gmail.com

To,

(a)The Principal Chief Electrical Engineer,

1. South Eastern Railway, Garden Reach, Kolkata – 700043.
2. Eastern Railway, Fairlie Place, Kolkata – 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 -500371.
6. Western Railway, Church Gate, Mumbai- 400 020.
7. Central Railway, 2ndFloor,Parcel Office Building, Mumbai CST-400 001.
8. South Western Railway, Hubli- 580028.
9. West Central Railway, Jabalpur- 482 001.
10. East Coast Railway, B-2, BDA Rental Colony, Chandrasheharpur, Bhubaneswar-751023
11. East Central Railway, Hazipur (Bihar)-844 101.
12. North Central Railway,Subedarganj, Allahabad -211 001.
13. North Eastern Railway, Gorakhpur-220055.
14. North western Railway, near Jawahar Circle, Jaipur-302017.
15. South East Central Railway, Bilaspur-495 004.
16. North East Frontier Railway, Maligaon, Guwahati-781011.
17. Konkan Railway Corporation Ltd.,BelapurBhavan, Sector-11, CBD-Belapur, Navi Mumbai, Maharastra- 400614.

(b)Chief Administrative Officer,

Central Organization for Railway Electrification, Nawab Yusuf Road,
Allahabad- 211 001.

Sub: Maintenance Instruction No. TI/MI/0058 Revision -1 "To prevent Contact wire parting at RRA location".

Ref: This office letter no TI0LKO(OHE)/11/2020/O/o PED/TI/RDSO dated 12.08.2021.

The maintenance instruction (SMI) No. TI/MI/0058 Rev.1 "To prevent Contact wire parting at RRA location" was circulated vide this letter no. TI0LKO(OHE)/11/2020/O/o PED/TI/RDSO dated 12.08.2021 to all Zonal Railways.

Due to some typographical error, SMI No. TI/MI/0051 Rev.1 in header at page 2 of 3 & 3 of 3 in place of SMI No. TI/MI/0058 Rev.1 had been mentioned. The same has been modified and corrected copy of SMI "TI/MI/0058 Rev1" is enclosed herewith.

This is issued with the approval of competent authority.

(Giraj Kishore)
Joint Director Traction Installation-2
[For Director General (TI)]

Digitally Signed by Giraj Kishore
Date: 25-04-2022 18:11:09
Reason: Approved

Encl-As stated above.

676180/2021/O/o PED/TI/RDSO

Government of India

सत्यमेव जयते

Ministry of Railways

Research Design & Standards Organisation

Manak Nagar, Lucknow-226011

MAINTENANCE INSTRUCTION No. TI/MI/0058, Revision-1
Maintenance Instructions
For
SPECICAL MAINTENANCE INSTRUCTION (SMI) TO PREVENT CONTACT WIRE PARTING AT RRA LOCATION

	Prepared By	Checked By	Recommended By	Approved By
Signature	SSE/OHE(D)	JDTI-II	EDTI	PEDTI
Date	10.8.2021	10.8.2021		

Issued by

Traction Installation Directorate
Research Design & Standards Organisation
Manak Nagar Lucknow- 226011

SPECICAL MAINTENANCE INSTRUCTION (SMI) TO PREVENT CONTACT WIRE PARTING AT RRA LOCATION

1. Objective to Prevent contact wire parting at RRA location.

2. BACK GROUND: On 25 KV AC Traction System, there have been many failures of Contact Wire parting at RRA clamp due to non- availability of curvature on sides of RRA clamp.

3. FAILURE PROCESS

   a) Cantilever rotates (upto 550 mm depending upon tension length) front and back due to temperature variation.
   b) Non availability of curvature results in groove formation on contact wire & results in failure in tensile mode.
   c) Contact wire may part on either side of RRA clamp.

4. Maintenance Instruction:

   a) Special Drive should be launched to identify locations where RRA Clamp sides are not having curvature.
   b) Provide correct RRA clamp, i.e. RRA clamp having curvature on both sides.
   c) Check for cracks/damages of contact wire & replace contact wire piece during RRA clamp replacement or otherwise.
   d) Ensure stagger as per drawing (both Contact wire & Catenary wire have the same stagger).
   e) Provide correct RRA dropper length as per drawing. Dropper is in single piece.
   f) Ensure Proper gradient, relative gradient of contact wire.
   g) Ensure correct Raised Register Arm Tube (RRT) length as per drawing.
   h) The above points should also be checked during AOH & POH maintenance.
   i) Railway should ensure provision of RRA clamp (RI No.1371-3) made of SGCI as per RDSO drawing No. ETI/OHE/P/1370-1, Mod-H in each overlaps locations in place of RRA clamp made of MCI (Drawing No. ETI/OHE/P/1370-1, Mod-E).
   j) Inner diameter of RRA clamp should be measured before installation. The inner diameter should be equal to 13mm.

5. Provision of supporting contact wire:

a) It is advised that an additional piece of contact wire approximately 2m length may be provided across RRA clamp with 02 PG clamps on either side as a short term measure to avoid falling down of OHE in case of contact wire parting at RRA location. The both end of supporting contact wire should be bent in C shape to avoid slipping of PG. This arrangement should be provided at location where RRA clamps are not available as per drawing mentioned in para 4(i).

b) The arrangement for supporting contact wire across RRA clamp with 02 PG clamps on either side is shown in figure-1.

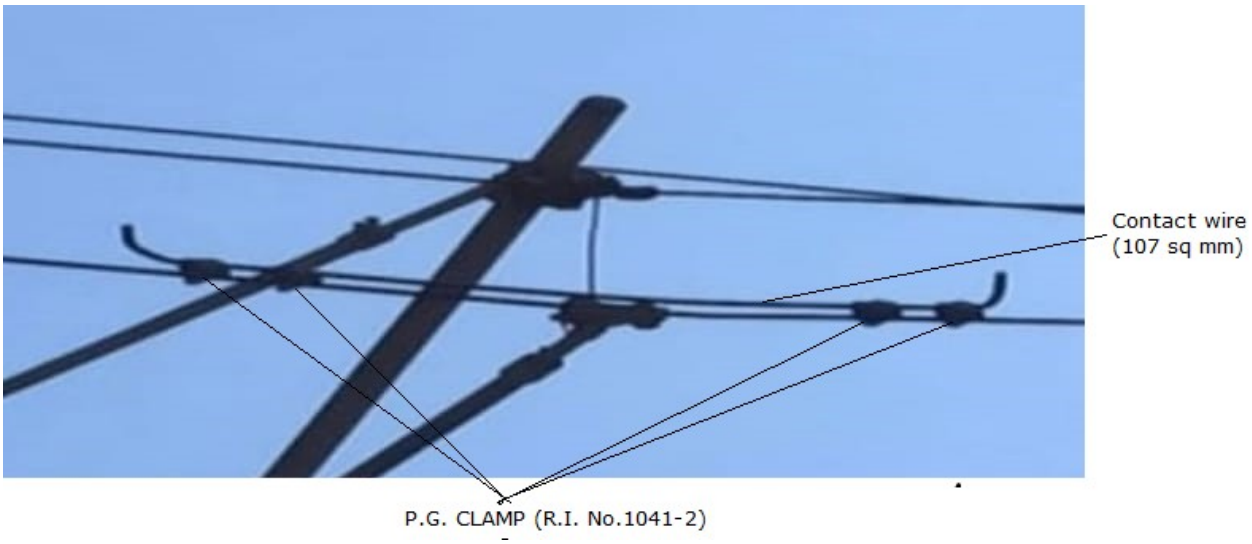


FIGURE-1

6. Note**:**

a) RRA clamp should be flexible (free) at RRA adjuster.

b) Raised register arm tube (25mm)(RI No. 2431) lengths are 0.3m,0.6m,0.8m,1.0m,1.2m,1.5m & 1.7m.

c) Raised Register Arm Dropper Assembly should as per drawing No. ETI/OHE/P/2470 Rev.-E.

7. REFERENCES:

a) ETI/OHE/P/1370-1 Rev. H(Raised Register Arm Clamp) , ETI/OHE/P/1370-1 Mod-E, (Raised Register Arm Clamp , MCI), ETI/OHE/P/2470 (Raised Register Arm Dropper Assembly), ETI/OHE/P/2471-1 Rev.-E (Dropper Clip (25) for Raised Register Arm), ETI/OHE/P/2472-1 Rev-B (Raised Register Arm Dropper), ETI/OHE/P/2480 (Raised Register Arm Dropper Assembly). (ETI/OHE/P/1041-2, Rev.-C contact wire parallel clamp).

b) RE/33/P/2431,Rev.-D (Raised Register Arm Tube 25), RE/33/P/2432 Rev.-E(Raised Register Arm Adjuster 25mm).

…..xxxxx…..