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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
Organization, LUCKNOW – 226011

सं. ई. एल./3.1.35/2इलेविट्रकल

दिनांक: 26.07.2013

मुख्य विद्युत अभियंता,

1. मध्य रेलवे, मुम्बई सीएसटी –400 001
2. उत्तर रेलवे, बड़ोदा हाऊस, नई दिल्ली–110 001
3. दक्षिण मध्य रेलवे, रेल निलायम, सिकंदराबाद–500 071
4. पष्चिम मध्य रेलवे, जबलपुर–482 001
5. दक्षिण पूर्व मध्य रेलवे, बिलासपुर–495 004
6. पूर्व–मध्य रेलवे, हाजीपुर–844 101
7. पूर्व रेलवे, फेयर्ली प्लेस, कोलकाता–700 001
8. दक्षिण पूर्व रेलवे, गार्डन रीच, कोलकाता–700 043
9. दक्षिण रेलवे, पार्क टाउन, चेन्नई–600 003
10. पष्चिम रेलवे, चर्चगेट, मुम्बई–400 020
11. चितरंजन रेलइंजन कारखाना, चितरंजन – 713 331

विषय :संलग्न पत्र से सम्बंधित ।

उपरोक्त विषय में इस कार्यालय का दिनांक 24.07.13 का समसंख्यक पत्र आपकी सूचना एवं आवश्यक कार्यवाही हेतु इस पत्र के साथ संलग्न है ।

(वी॰ के॰ सिह)
कृते महानिदशक/विद्युत

संलग्नक: यथोक्त।

प्रतिलिपि:–
1 सलाहकार ,विद्युतद्ध,रेलवे बोर्ड,रेल भवन,नई दिल्ली–110 001– कृपया सूचनार्थ

2 वरि0 मंडल विद्युत अभियन्ता (टी.आर.एस.), विद्युत लोको शेड,

- मध्य रेलवे, अजनी, नागपुर – 440 008
- उत्तर रेलवे,गाजियाबाद, – 201 001 (उत्तर प्रदेष)
- दक्षिण मध्य रेलवे, लालागुडा – 500 017
- पष्चिम मध्य रेलवे, तुगलकाबाद, नई दिल्ली–110 044
- दक्षिण पूर्व मध्य रेलवे, बीएमवाई काम्पलेक्स, भिलाई दुर्ग–490 025
- पूर्व मध्य रेलवे, गोमोह – 828 401
- पूर्व रेलवे, हावड़ा
- दक्षिण पूर्व रेलवे, टाटानगर–831 002
- दक्षिण रेलवे,रोयापुरम चेन्नई 600 013
- पष्चिम रेलवे, बडोदरा–390 002

(वी॰ के॰ सिह)
कृते महानिदशक/विद्युत

O/C

जारिकर्ता
हस्ताक्षरी
29.7.13

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सत्यमेवजयते

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

No. EL/3.1.35/2 Electrical

Dated 24.07.2013.

Chief Electrical Engineers,

1. Central Railway, Mumbai CST-400 001.
2. Northern Railway, Baroda House, New Delhi-110 001.
3. Eastern Railway, Fairlie Place, Kolkata -700 001.
4. East Central Railway, Hazipur-844101.
5. Southern Railway, Park Town, Chennai-600 003.
6. South Central Railway, Secunderabad-500 371.
7. South Eastern Railway, Garden Reach, Kolkata -700 043.
8. South East Central Railway, Bilaspur-495004
9. Western Railway, Churchgate, Mumbai-400 020.
10. West Central Railway, Jabalpur-482001.
11. Chittaranjan Locomotive Works, Chittaranjan-713 331.

MODIFICATION SHEET NO. RDSO/2013/EL/MS/0426, (Rev.'0'), Dated 18.07.13.

1.0 **Title**:

Modification Sheet of Bogie isolation rotary switch (Sch. Pos. 154 cut out switch) in three phase electric locomotives.

2.0 **Object**:

A number of failures of 3-phase locos have taken place due to improper operation of 154 cut out switch by crew, resulting into severe detentions to trains. In all these cases, in the process of isolation of bogie-II, Loco Pilots have in advertently put the switch in bogie-I cut out position for more than 10 seconds leading to bogie-I isolation and further put the cut out switch in bogie-II cut out position without bringing back the bogie-I into service (by switching OFF/ON MCE) leading to isolation of both bogies and further resulting into complete main power off.

3.0 **Existing Arrangementwith cross-references of respective design document:**

For isolating bogie-II, cut out switch 154 is to be put first in bogie-I cut out position, then bogie-I&II position and then the bogie-II cut out position. This is because a stopper is provided on the surface of the switch to prevent the rotation in clockwise direction (shown in Annexure-I, Fig.1) and the locking provided inside the switch (shown in Annexure-I, Fig.2). In the process of sequential operation, if the Loco Pilots keeps the cut out switch either in bogie-I or bogie-I&II position for more than 10 seconds bogie-I or both bogies get isolated. To bring back the isolated bogie, the driver has to switch OFF/ON MCE, failing which, subsequent operation for isolation of bogie-II by keeping the switch in bogie-II position will result in main power off. Once main power off is noticed, LP fails the loco. Even if they do trouble shoots considerable time is lost in proper isolation of bogie.

4.0 **Modified Arrangement to replace existing arrangement as given above in 3.0:**

To overcome the problem, the stopper provided on the surface of the switch, which prevent the rotation in clockwise direction and the locking provided inside the switch need to be removed (shown in Annexure-II, Fig.1 & Fig.2) respectively.

5.0 **Application to class of locomotives**:

WAP-5, WAP-7, WAG-9, WAG-9H.

6.0 **Material Required**:

NIL

7.0 **Material Rendered Surplus**:

NIL.

8.0 **Reference**:

South Central Railway's letter no.E.221/SMI/MD/TC/3Phase/Vol.III/426 dtd.22.05.13.

9.0 **Modification Drawing**:

Attached.

10.0 **Agency of Implementation**:

CLW, work shops and loco sheds holding, 3-phase locomotives.

24/07/13
(Sandeep Srivastava)
for Director General/Elect.

Encl.As above.

Secretary (Electric Traction),
Railway Board,
Rail Bhawan, New Delhi-110 001.

Sr. DEE (TRS), Electric Loco Sheds,

1. Central Railway, Ajni (Nagpur)-440008.
2. South East Central Railway,
   BMY Complex, Bhilai, Durg-490 025.
3. West Central Railway, Tughlakabad,
   New Delhi-110 044.
4. Northern Railway, Ghaziabad
   (UP)-201 001.
5. East Central Railway, Gomoh-828 401
6. South Central Railway, Lallaguda, Secunderabad – 500 017.
7. Eastern Railway, Howrah.
8. South Eastern Railway,
   Tatanagar-831 002.
9. Western Railway, Vadodara-390 002.
10. Southern Railway, Royapuram,
    Chennai-600 013

24/07/13
(Sandeep Srivastava)
for Director General/Elect.

Encl.As above.


NORM
I
II
II
Stopper
154 SWITCH UN-MODIFIED

Fig.1

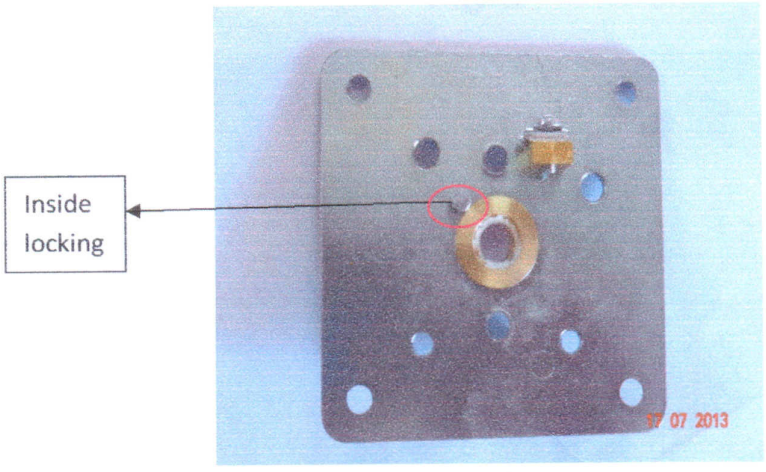
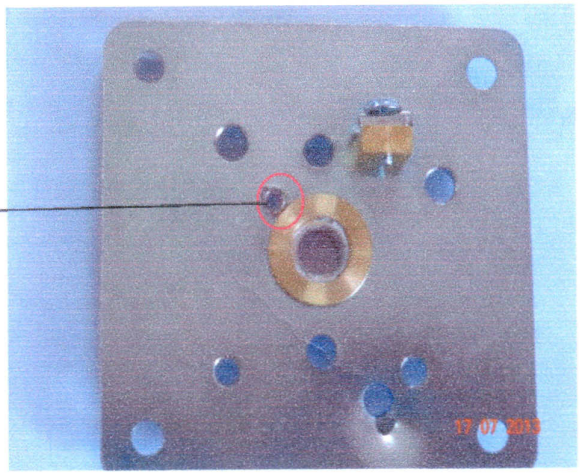

Inside
locking
17 07 2013

Fig.2

Switch without stopper

Fig.1



Inside locking removed

Fig.2