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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

ई.एल/3.1.3

दिनांक: 31-05-2012

मुख्य विद्युत इंजीनियर

1. मध्य रेलवे, मुम्बई सी.एस.टी - 400001.
2. पूर्व मध्य रेलवे, हाजीपुर, बिहार - 844101
3. उत्तर रेलवे, बड़ौदा हाउस, नयी दिल्ली - 110001.
4. उत्तर मध्य रेलवे, सुबेदारगंज, इलाहाबाद - 211033.
5. दक्षिण पूर्व मध्य रेलवे, बिलासपुर - 495004
6. पश्चिम रेलवे, चर्चगेट, मुम्बई - 400020
7. पश्चिम मध्य रेलवे, जबलपुर - 482001

539847

विषय: Modification Sheet No: RDSO/2012/EL/MS/0409 (Rev'0')

उपर्युक्त विषय में इस कार्यालय का दिनांक 30.05.2012 का सम संख्यक पत्र आवश्यक कार्यवाही हेतु संलग्न है।

संलग्न : यथोक्त

ई.एल.
31.05.2012
कृते महानिदेशक/विद्युत

जरी किया
श. रिपरी
31.5.12

०/६

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472
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लखनऊ- 226011
Government of India - Ministry of Railways
Research, Designs & Standards
Organization, LUCKNOW - 226011

EL/3.1.3

Date: 30/05/2012

Chief Electrical Engineers:

Central Railway, Mumbai, CST-400 001.
East Central Railway, Hazipur-844101.
East Coast Railway, Chandrashekharpur, Bhubaneswar-751016.
Eastern Railway, Fairlie Place, Calcutta-700001.
North Central Railway, Subedarganj, Allahabad- 211033.
Northern Railway, Baroda House, New Delhi-110001.
South Central Railway, Secunderabad-500 071.
South East Central Railway, Bilaspur-495004.
South Eastern Railway, Garden Reach, Calcutta-700 043.
Southern Railway, Park Town, Chennai-600 003.
West Central Railway, Jabalpur-482001.
Western Railway, Church gate, Mumbai-400 020.
Chittaranjan Locomotive Works, Chittaranjan-713331.

539843

Modification Sheet No: RDSO/2012/EL/MS/0409(Rev'0')

1.0 Title:

Provision of N/O interlock of QCON relay in the circuit of QTD 101 coil to avoid SI unit tripping due to working of compressor in soft start mode in rear loco of multiple unit.

2.0 Object:

To avoid SI unit tripping due to working of compressor in soft start mode in rear loco of multiple unit.

3.0 Background:

Though RDSO specification of SI unit stipulates that SI unit should be able to reach to its rated output voltage in 15 second but differences in ramp up time of different make SI units have been observed. During MU operation, if ramp up time of SI unit of lead loco is less than that of rear loco, then QCON relay of leading loco picks up early thereby indicating to driver to switch ON compressor. When BLCP is put to "ON", compressor contactor of both locos pick up. As SI unit of rear loco is yet to ramp up to its full voltage, overloading by compressor takes place, resulting SI unit tripping in rear loco.

As there may be minor differences in ramp up time of different make SI units, it is proposed to provide N/O interlock of QCON relay in the circuit of QTD 101 coil to avoid the problem of tripping of SI unit in rear loco while working in MU. With this

OK

modification, even if compressor "ON" command is available from lead loco, rear loco Compressor contactor shall not close until its SI unit has fully ramped up. Draft modification sheet was circulated to railways vide RDSO letter of even no: dated 28/02/2012 for comments CR,NR,NCR,SCR,WR and WCR has commented acceptability of modification.

4.0 Work to be carried out:

Take out wire No: 401 from QTD101 coil and connect it to spare N/O terminal of QCON relay. Connect other end of N/O interlock of QCON to QTD 101. Existing & modified circuit schematic and cabling index are attached as Annexure-I, II & III.

5.0 Applicable to the class of locomotives:

All class of conventional relay based 25 KV AC tap changer electric locomotives fitted with SIV.

6.0 Material required:
2.5 mm² cable

7.0 Material rendered surplus:
NIL

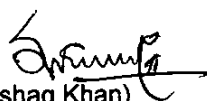
8.0 Reference:

New Item No 16 of 34th MSG (Elect Loco) meeting held at Jabalpur/WCR on 28th & 29th April 2011.

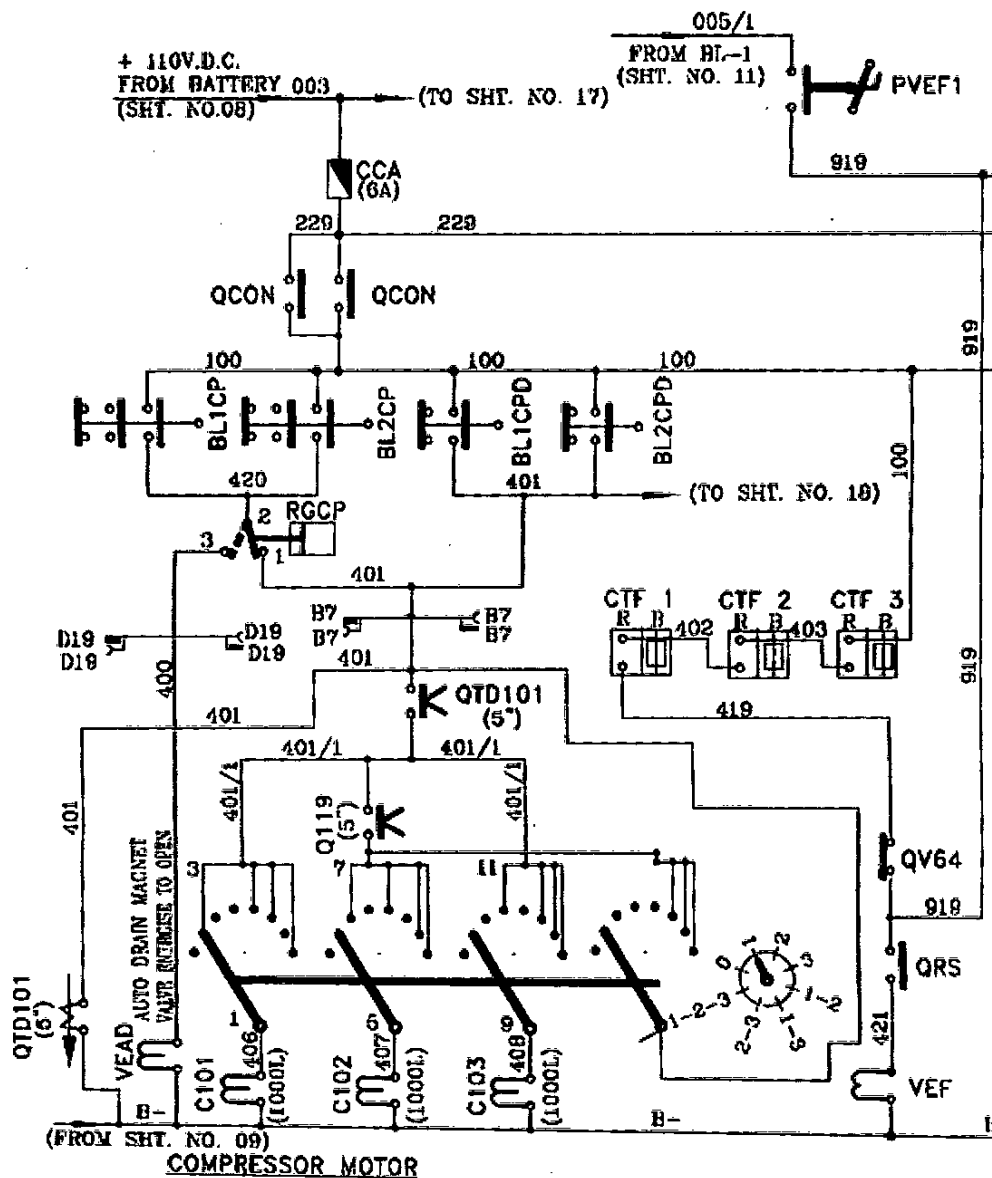
9.0 Agency for implementation:

- I. All Electric Loco Sheds.
- II. All POH Workshops.
- III. Chittaranjan Locomotive Works, Chittaranjan-713331.

DA: Annexure-I, II and III

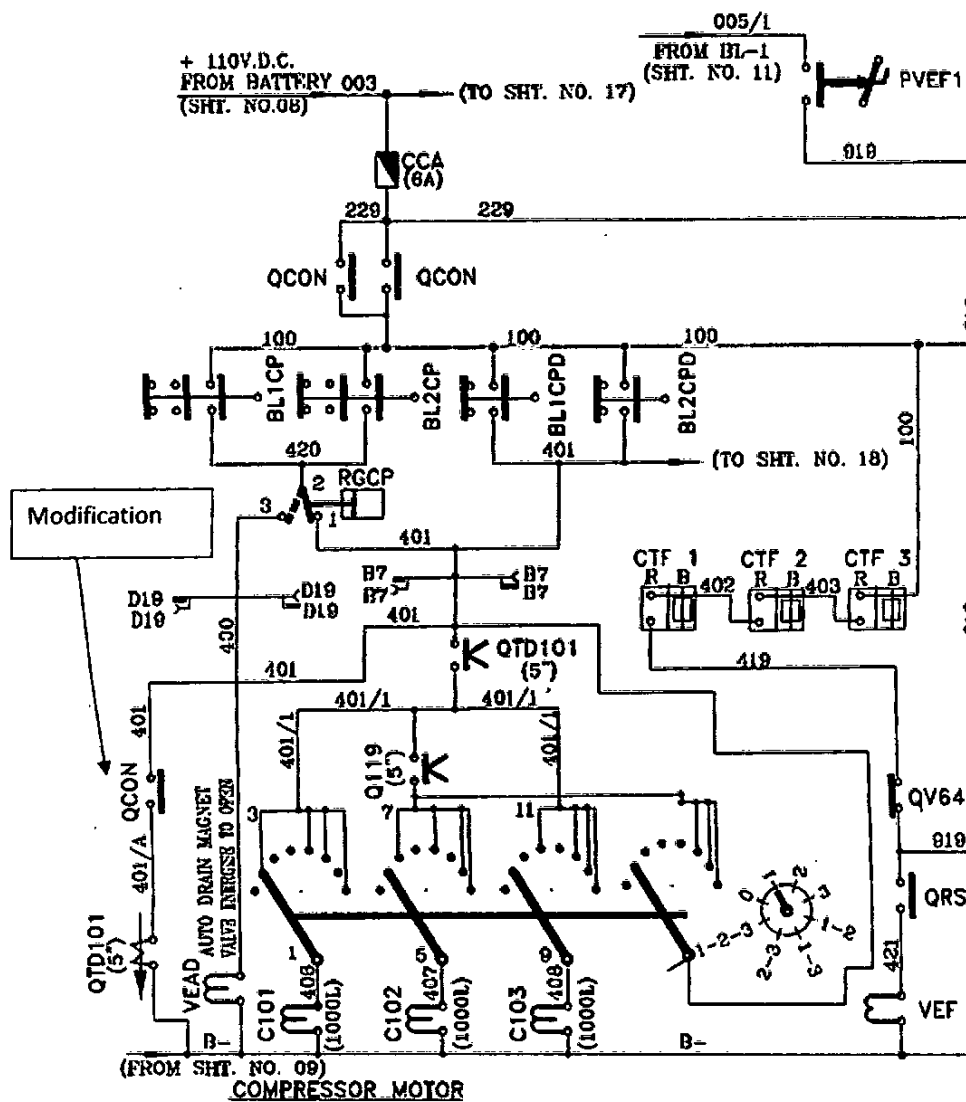

(Ishaq Khan)
For Director General Std/Elect

539849



Existing Circuit

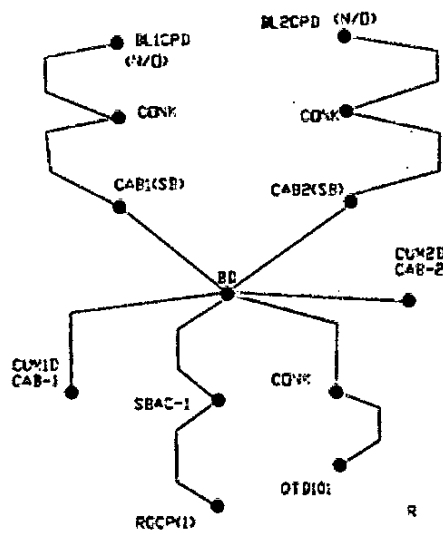
Annexure -II



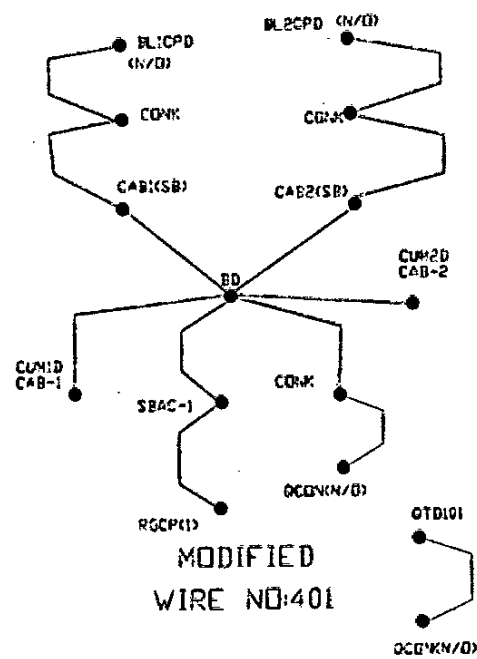
Modified Circuit

537851

Annexure -III



EXISTING
WIRE NO:401



MODIFIED
WIRE NO:401

WIRE NO:401/A

537852

Cable index