Government of India
Ministry of Railways
Research, Designs & Standards Organisation
Manak Nagar, Lucknow - 226 011

No.EL/3.2.10/5/CG Dated:8th November,1983

MODIFICATION SHEET NO. RDSO/WAM4/132
CONVERSION OF SPARE STANDARD CONTACT INTO BOM CONTACT OF QCVAR RELAY OF M/S. ENGLISH ELECTRIC CO. MADRAS.

1. OBJECT

There have been cases of flashing/melting of (BOM) heavy duty contact of English electric QCVAR relay. This contact breaks high inductive load of operating coil of contactor C118. Though the breaking capacity of the BOM contact is well adequate for the load to be interrupted, even then the contact shown heavy flashing, causing melting/burning of the contacts and nylon. Various tests and experiments have revealed that the flashing reduces considerably with the provision of the/ more heavy duty contact in series with the existing heavy duty contact.

The proposed modification has already been carried out on a number of relays by the firm and has given satisfactory performance during service trials.

It is, therefore, recommended to implement this modification on all the relays in service as per the details given below.

2. WORK TO BE DONE

2.1 See wiring diagram No. SK EL 3683

2.2 Procure blow out magnet and its accessories as detailed in para 4. from M/s English Elctric Co. Madras.

2.3 Dismantle the relay and study the mounting arrangement of the existing heavy duty contact assembly. Fasten the proposed BOM with the help of BOM carrier strip and spacers on the available standard contact 'A'. Connect them by heavy duty contacts in series interval as shown in SK. EL. 3683. contact ends 5 and 6 shall be wired to relay terminal No. 5 and 6. There will be No change in the external circuit.

2.3 Check for direction of current flow between the two BOM contacts in series for proper 'arc blow out'. Magnetic blow out contacts are for d.c. only and must be connected with the positive line to the moving contact. If the arc blows backwards and fail to extinguish, polarity is incorrect and connections shall be reversed.

2.4 Clean the components. check the contact pressure of each contact, pack up and drop out voltages and get them to the specified values if required.

3. APPLICATION

All English Electric Co. make QCVAR relays type VAG11/VAA11.

4. MATERIAL REQUIRED

– One No. unit Assy. F80 137-054

– One No. contact Assy. F80 0002-684.

5. MATERIAL RENDERED SURPLUS

Nil.

6. MODIFICATION DRAWING

SK. EL. 3683.

7. AGENCY FOR IMPLEMENTATION

CLW/CRJ for unmodified relays in stock. CLW/Rlys. should also ensure the procurment of QCVAR relays as per the firm`s Drawing No. MZDZ 850-031-1 for their future requirement.

7.2 Electric loco Sheds and POH shops for locos in service.

7.3 M/s English Elec. Co., for current and future supplies.

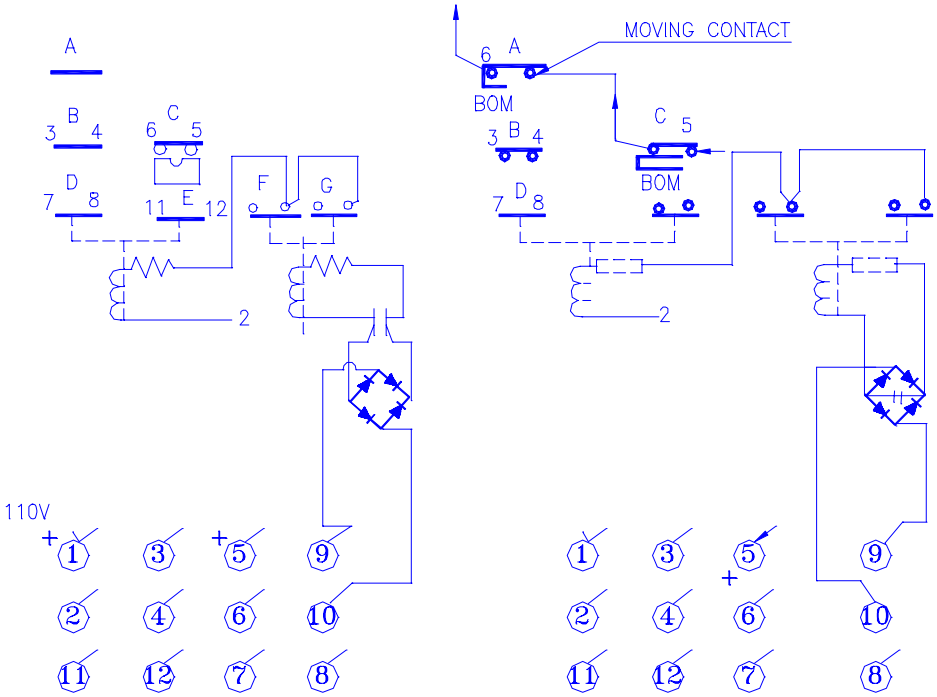
8. DISTRIBUTION

As per mailing list.

Encls: SK. EL. 3683 Mailing list.

(K. VISHWA KUMAR)
for Director General/Elect.

SKEL-3683



EXISTING

MODIFIED

REF :- ENGLISH ELECTRIC Co DRG.No.MZDZ 850-031-1	SCALE:-	APPROVED:-

WIRING DIAGRAM OF QCVAR RELAY

RDSO.ELEC. DTE.	SKEL-3683

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