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Government of India - Ministry of Railways
RESEARCH DESIGNS & STANDARDS ORGANISATION

No. EL/3.2.74/2/EC1

Manak Nagar, Lucknow-11

Dt. 6-10-80

MODIFICATION SHEET NO. RDSO/WAM-4/106

1. OBJECT :

It is anticipated that winding insulation failures on auxiliary motors can be considerably reduced by providing selenium surge suppressors. It is, therefore, proposed that 20 Locomotives may be provided with these devices for trial purpose. Two makes have been developed so far. Therefore, 10 Locomotives may be provided with selenium surge suppressors of M/s Usha Rectifiers Corporation (I) Ltd. and the other 10 Locomotives with M/s Khandelwal Hermann Ltd.

2. WORK TO BE CARRIED OUT :

Connect the three phase star connected selenium surge suppressors (KLIP-SELS) across the three phase ARNO output as per RDSO Drawing No. SKEL/3145-A and mount the unit rigidly in the loco. The unit should be mounted as close as possible to the ARNO.

3. MATERIAL REQUIRED :

Selenium surge suppressor
data

Supplier

1. F-500-1400-240/clamping
Voltage 1400-V, 20 plates
per stack, 83x100mm plate
size with 25A HRC fuse
in series with each stack.

M/s Khandelwal Hermann
Electronics Ltd.,
Khandelwal Estate,
Bombay -400 078

2. 3xKSDP 22T3DD clamping voltage
1375 V, 22 plates per stack,
76x76 mm plate size with 25
A HRC fuse in series plate with
each stack.

M/s Usha rectifiers
Corporation(I) Ltd.,
12/1, Delhi-Mathura
Road, Faridabad-121003

4. APPLICATION :

20 WAM-4 Locomotives :

10 Units at Baroda Electric Loco Shed
with M/s Khandelwal Hermann Electro-
nics Ltd. suppressor.

10 Units at Ghaziabad Electric Loco Shed
with M/s Usha Rectifiers Corporation(I)
Ltd. suppressor.

5. MODIFICATION DRAWING:

- RDSO/SKEL - 3145- A.

6. AGENCY FOR MODIFICATION :

Baroda and Ghaziabad Electric Loco Sheds.

7. DISTRIBUTION :

As per list enclosed.

Encls/As above.

Drawing No. SKEL/3145-A

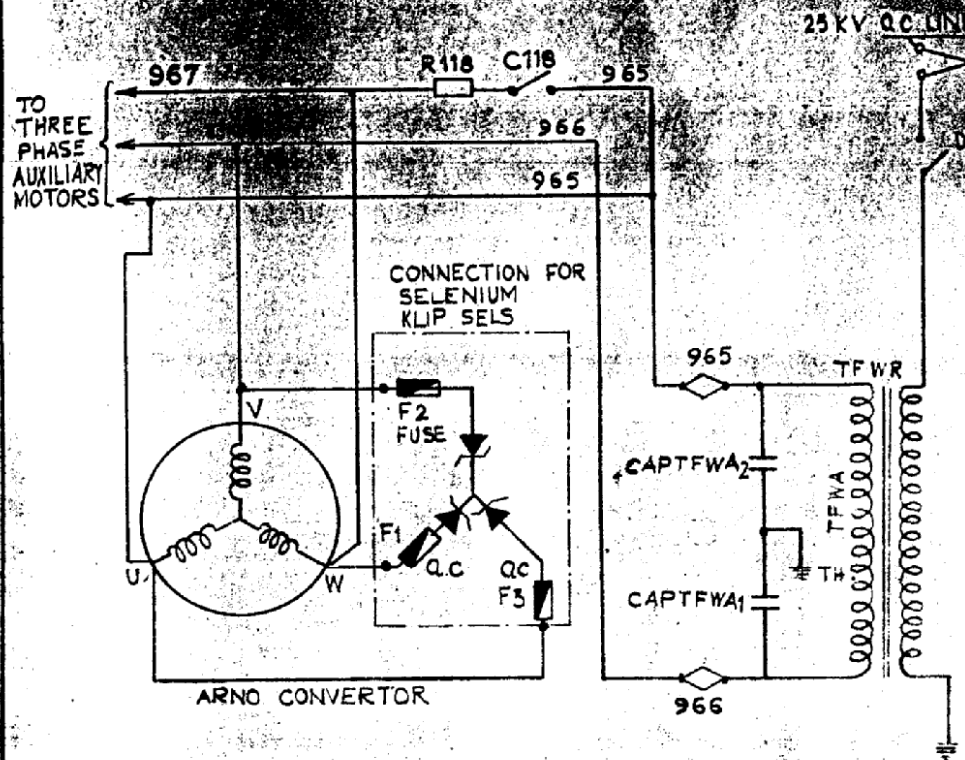
Sunder Kumar

(S. Kumar)

Krite Maha Nideshak/vid

SK EL-3145/A

227 C08
hak/V1d



REF: MS NO RDSO/WAM₄/106

SCALE

APPROVED

FOR

PROPOSED CONNECTION DIAGRAM FOR
SELENIUM KLIP-SELS ON 3φ ARNO
SUPPLY TO AUX. MOTORS

RDSO.ELEC. DTE.

SK EL-3145/A