

GOVERNMENT OF INDIA, MINISTRY OF RAILWAYS
RESEARCH DESIGNS & STANDARDS ORGANISATION

MANAG. NAGAR, LUCKNOW-226 011

No. BL/3.1.3/DA2

Dated: September 1981.

MODIFICATION SHEET NO. RDSO/WA14/121

PROVISION OF MID-POINT EARTHING OF POWER CIRCUIT ON
WA14 LOCOMOTIVES WITH 3S-2P TRACTION MOTOR CONNECTION

1. Object of Modification:

1.1 There have been a number of cases of failures of insulation to earth on traction motors of WA14 locomotives. It is considered desirable to reduce the dielectric stress on the motor insulation by earthing the mid-point of the top two of the three motors connected in series instead of one side of the power circuit, as at present.

1.2 The connection of the mid-point of the motor to the earth will be made through resistors as shown in enclosed sketch No. SK.BL-3429 and SK.BL-3430. The resistors are needed to limit the circulating current in the case of a flashover of any of the motors.

2. Work to be carried out:

Power circuit of the locomotive with normal 3S-2P connection of traction motors is to be modified as per RDSO SK.BL-3429 and SK.BL-3430.

3. Application to Class of Locomotive:

All WA14 locomotives having normal 3S-2P connection of traction motors.

4. Material required:

Three 100 ohms and 500 watts resistors, one link and 2.5 mm² / 3.0 mm² cables of appropriate length.

5. Material rendered surplus: NIL.

6. Reference: This is further to Modification Sheet No. RDSO/WA14/09 issued for WA14 locos with 2S-3P motor connection.

7. Modification Drawing:

- (1) RDSO SK.EL-3429 (for locos with Dynamic Braking)
- (ii) RDSO SK.EL-3430 (for locos without Dynamic Braking)

8. Agency for Modification:

CEI - For locomotives under production.

Railways - For locomotives in service.

9. Distribution: AS PER ATTACHED LIST.

Encl: Drgs.No.SK.EL-3429
& SK.EL-3430

(A. S. Tankar)
for Mr. Nidesh (Vidyut)

2NS

23.9.01



