

**Government of India Ministry of Railways
Research Designs & standards Organisation**

Manak Nagar, Lucknow 226011.

No.EL/3.2.135/J12

Date:13.8.92

Special Maintenance Instructions No.RDSO/ELRS/SMI/142

1. TITLE

Failure of capacitor terminals in surge voltage damping pannels of silicon rectifier cubicles on ac Electric Locomotives.

2. APPLICATIONS TO CLASS OF LOCOMOTIVES

All ac Electric Locomotives provided with silicon Rectifiers.

3. OBJECT OF SMI

Capacitors terminals breakage, burning, loose connections were reported by various electric loco sheds. On investigation it was found that Ampan clips used for connections were loose in same cases and were not lockable type, resulting in burning of capacitor terminals.

The use of lockable Ampen-clips having small circular dent which side in capacitor terminal hole are pressing the clip in sure it is still loose in capacitor terminal or replacing of other clip solve the problem. No such failures have been experienced in GZB Elect. Loco shed for the last 10 months after this practice.

4. INSTRUCTION DRAWING

Nil.

5. INSTRUCTIONS

(i) Inspect that there is no loose connection

(ii) In case there is loose connections, check the Amper-Clips is lockable or not. If not lockable, replace it by a lockable clip.

(iii) Fit it back on capacitor terminal and see it is not loose. In case it is loose replace by other clip or tighten the same.

(iv) Check connections at AOH and replace defective clip.

6. **PERIODICITY OF CHECKING**

During AOH

7. **AGENCY OF IMPLEMENTATION**

Electric loco sheds

8. **REFERENCE:**

Item -19 of MSG XIX (EL)

9. **DISTRIBUTION**

As per list enclosed.

s/d (S. Kumar)
for Director General/Elect.