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Government of India - Ministry of Railways

Research, Designs & Standards Organization, LUCKNOW - 226011

No. EL/3.2.176/2

Date: 29.10.2003

# Modification Sheet No. ELRS/MS/0328( Rev.0)

Title: To provide water discharge outlet in the TM Scavenge Blower on WAG9, WAP5 & WAP7 class of Locomotives.

## 10 Object:

Several cases of burning of TM & Oil Cooler Scavenge Blower Motors were reported by ELS/GMO, specially in rainy season. After investigation, it was observed that starting of blower under condition of water accumulation in the bottom portion of the blower casing scroll was one of the causes of failure. During rains, water is coming from roof air filter and being accumulated at the bottom of air duct scroll. Impeller bottom portion remains partially submerged in accumulated water, which may cause overloading of motor during starting/running resulting in burning of motor.

To eliminate water accumulation, it was decided to provide a water discharge outlet on the blower casing to drain accumulated water through air discharge duct. The modification carried out by Electric Loco Shed, Gomoh on trial basis has given encouraging results. It has, therefore, been decided to standardise the arrangement on all locomotives.

### 3.0 Work to be carried out:

- i) Make two holes of 12 mm dia, one at air exhaust wall and other at casing scroll as shown in drawing No. SKEL-4678.
- ii) A copper tube of 10 mm dia and 130 mm length is to be brazed properly as shown in drawing No SKEL-4678
- iii) Check for proper drainage of water after pouring sufficient water in the casing.
- iv) Paint the brazed locations.

### 4.0 Application:

All TM & Oil Cooler Scavenge Blowers fitted on WAP-5, WAG-9 and WAP-7 class of locomotives.

5.0 Material Required: Copper tube of 10 mm out side dia to IS:2501-1905.

- Material rendered surplus: Nil 6.0
- Modification Drawing No.: SKEL-4678. 7.0
- Periodicity of Implementation: 8.0

During overhauling of TM & Oil Cooler Scavenge Blower.

#### Agency of Implementation: 9.0

- CLW on all new locomotives. i)
- Electric Loco Sheds on all WAP-5, WAG-9 and WAP-7 class of ii) Locomotives.
- Electric Loco Workshops carrying out POH of WAP-5, WAG-9 and WAP-7 iii) class of Locomotives.
- 10.0 Distribution: As per enclosed list.

DA: RDSO's Drawing No. SKEL - 4678

(M K Singhal) for Director General (Elec.)

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