

No. EL/3.2.172

SPECIAL MAINTENANCE INSTRUCTION No.ELRS.SLI/0207-99 (REV - 0)

Title:

Main dimensional checks of suspension tube while mounting on magnet frame of Traction Motor type HS15250A.

Object:

Railways have reported cases of the failure of suspension tube of Traction Motor type HS-15250A. On investigation it is observed that the failures of suspension tube are mainly because of the breakage of ribs or breakage of suspension tube fixation bolts size M36 × 110L. The main reasons for these failures are:

- (i) Improper tightening of suspension tube fixation bolts size M36 × 110L.
- (ii) Improper maintenance of dimension 'A' of suspension tube and corresponding dimension on magnet frame.

The matter has been discussed in detail with the Traction Motor manufacturers and Hitachi experts during their visit to CLW/Chittaranjan in November, 1998.

To overcome this problem and improve the performance of traction motor type HS-15250A, it is recommended to follow this SMI.

Work to be carried out:

- (i) Clean carefully the connecting faces of axle suspension tube and magnet frame with the help of clean and dry rag.
- (ii) Visually check the magnet frame and suspension tube for any cracks or deformation.
- (iii) Ensure the dimension 'A' for the suspension tube and magnet frame as follows:

| Dimension | Suspension Tube | Magnet frame |
|-----------|---|-----------------------------------|
| | (Refer page 15 of Appendix 'A' Hitachi Maintenance Manual) | (Hitachi Drg. No.10P702-114) |
| 'A' | $\varnothing 282 + 0.052$ $+ 0.020$ | $\varnothing 282 + 0.052$ $+0$ |

For this purpose, a 'Go'/'No Go' gauge may be used to ensure above dimensions on suspension tube and magnet frame.

- (iv) Measure and record the thickness of ribs.
- (v) Mount the suspension tube as per Hitachi Maintenance Manual.
- (vi) Tighten the S Hex - Head bolts of suspension tube fixation bolts size M36 × 110Z as per RDSO SMI No. RDSO/ELRS 163 of Dec. '96'.

Application:

AC Locos fitted with Traction Motor type HS 15260A.

Material required/Instrument required:

- Torque wrench :150 Kgm (Max.) capacity
- Vernier Caliper : Range as Required
- Depth Gauge : -do-
- Micro Meter : -do;
- 'Go'/No Go' gauges for measurement of 'A' dimension.

Material rendered surplus: Nil

Reference: Discussion with Traction Motor manufacturers.

Modified Drawing: Nil

Agency of Implementation:

- All Electric Loco Sheds.
- All POH Shops.
- All TM manufacturers.

Periodicity of Implementation:

- AOH/IOH/POH
- Whenever the Traction Motor is taken out on account of the suspension tube failure.

Distribution:

As per enclosed list

Encl: Nil



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