

Annexure-1

Special Terms and Conditions for Inspection of Stator and Rotor punching of 3-phase Traction Motor

1. ACCEPTANCE CRITERIA:

1.1 FIRST OFF PUNCHING:

1.1.1 Dimension checking as per BHEL drawing no. 04453164061 for stator & rotor main punching.

1.1.2 Burr level of stator and rotor punching shall be maintained as per relevant BHEL drawings.
Insulation coating should be intact during manufacture of stator and rotor punching.

1.2 MEASUREMENT OF STACK HEIGHT:

1.2.1 The supplier shall provide all the facilities for stator and rotor stack height measurement.

1.2.2 Stator and rotor punching, stack height shall be 480 ± 1 mm after application of suitable pressure.

1.2.3 Height shall be measured along the circumference at 8 points and value shall be recorded. The variation in height values shall not be more than ± 1 mm.

1.2.4 The sample size shall be 5 % of the offered lot rounded off to the next higher number.

2.0 SLOT ALIGNMENT:

Slot alignments to be checked in stacking condition by placing 4 stacking rules at 90 degrees apart the dimensions of stacking rules are shown in Fig no -1 the stacking rules shall move inside the slots under slight pressure without any abstraction.



Fig no. -1

3.0 ROUTINE INSPECTION:

The following tests to be carried out during routine tests.

3.1 Dimensions checking as per BHEL drawing no. 04453164061.

3.2 Measurement of stack height: As per clause no 1.2 above

3.3 Slot alignment: as per clause 2.0 above

4.0 INSPECTION:

- 4.1 Initially successful tenderer shall offer first lot of punching (as per PO), the clearance of manufacturing for further lots shall be given after successful inspection/assembly of core. Tenderer shall undertake bulk production after clearance of first lot by BHEL.
- 4.2 Punching shall be free from any short coming/defect (visual or dimensional) or otherwise which can be a cause of rejection.
- 4.3 Routine inspection of the punchings shall be carried out only after the approval of first lot.
- 4.4 The manufacturer shall provide all the necessary facilities at their works/premises for inspection at vendor works if required.
- 4.5 Vendor to get approval of QA plan for manufacture and inspection of stator and rotor punchings by BHEL before supply of stator and rotor punchings to BHEL.

5.0 PACKING AND MARKING:

- 5.1 Set of punchings shall be suitably marked for traceability with identification tag containing supplier /manufacturer's name, QC observation with signature, date of inspection/dispatch, dimensional report and sl no. of set for future references.
- 5.2 A set of punchings pertaining rotors and stators shall be packed in separate wooden crate to facilitate set wise receipt and issue at BHEL, Bhopal.
- 5.3 The set of punchings shall be suitably packed to prevent transit/ long storage damage and ingress of water.
- 5.4 To avoid rusting, the punching shall be suitably wrapped in polythene sheet followed by hessian cloth and finally packed in wooden boxes of adequate sizes.
- 5.5 Adequate nos. of silica gel packets or VCI emitters shall be placed inside the packing box. To prevent moisture absorption.
- 5.6 To prevent displacement (sliding) of the punching stack within the box during transit, all the punchings shall be properly secured in position by adequate no. of bolts/stud through the existing holes of the punching stack and tightening with the nuts with the top and bottom sides of packing box. However smaller punchings may be secured with steel wire instead of bolting two card indicating description of stamping/ punching drg. /specification no. order reference no of item and quantity per set.
- 5.7 To prevent any damage of teeth during transportation & material handling, the wooden packing box should be made of adequate strength, so that material should not be damaged during repeated handling. In addition, 20 to 25 mm thick synthetic foam sheet may be provided all around punching inside wooden box.
