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TME 2011

PRODUCT STANDARD
TME DIVISION, BHOPAL



TM 10417

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734283/2022/HEP-TME-20500

SPECIFICATION FOR ALUMINUM BRONZE CLAMPER AND TERMINAL FOR HS15250A

1.0 SCOPE:

This specification covers manufacture, machining, dressing, testing, inspection, packing and supply of Aluminum Bronze items for Hitachi Traction Motor (HS 15250A) for Electric Locomotives.

2.0 THE DETAILS OF ITEMS COVERED IN THIS SPECIFICATION ARE INDICATED BELOW:

2.1 The requirement of items is indicated below.

Sl. No.	Description	Drg. reference	Qty/TM
(i)	Terminal & Clamper	34391260057 (latest revision)	4 Nos.

NB (i) All the items shall be supplied as per the latest version of drawings and specifications.
(ii) The tenderer(s) shall quote their rates 'per set'; otherwise the offers are liable to be summarily rejected.

3.0 RAW MATERIAL: Aluminum Bronze Grade: ALBC2 of JIS H5114.

4.0 MANUFACTURING PROCESS:

4.1 All the items shall be gravity die cast and machined to relevant Drgs.
4.2 After die casting and machining, all the unmachined surfaces and sharp edges due to machining shall be suitably cleaned and radiused.
4.3 All the items supplied shall be hot electroplated to plating thickness 0.005 to 0.008 mm (as per service grade 1, table 1 of IS1355-92).
4.4 Holes, wherever to be provided, shall be jig drilled and chamfered

5.0 DIMENSIONS AND TOLERANCES:

5.1 All dimensions are in mm.
5.2 The dimensions and tolerances shall be as per relevant drawings.
5.3 Tolerance of ± 0.5 mm shall be applicable wherever not specified.

6.0 ACCEPTANCE TEST:

6.1 The supplier shall have to inform BHEL date of casting of each lot of the material in advance that authorized representative BHEL is able to stamp and seal the Integral test bars.
6.2 A minimum of three nos. of test bars for each cast shall be offered for conducting physical test and one test bar for chemical analysis test as per JIS H5114 at BHEL.

Revision: 02

Date: 03/05/13
In clause 4.3 plating thickness was not as

Distribution

Qty.

Approved:
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6.3 It is expected that the firms should have the required Inspection/Testing facilities as per relevant Spec./Drg. in their works in addition to requirement at para 6.2 above.

6.4 Firm shall provide all the necessary assistance to BHEL Inspecting officials at their works during Prototype/routine Inspection

PROTOTYPE INSPECTION:

7.0 In case of prototype clause in P.O. the successful tender(s) shall offer a minimum quality required to manufacture at least two Traction motors to the BHEL.

7.1 Routine inspection of the Items shall be carried out only after the approval of Prototype sample.

7.2 Any shortcomings / defects in the design and workmanship of the Items shall be pointed out to the supplier after prototype tests to enable him to incorporate necessary improvements before bulk supply is commenced.

7.3 Any Testing and approval by the purchaser of the design, drawing and prototype shall in no way absolve the supplier of his responsibilities under the terms and conditions of the contract.

MARKING:

8.0 Manufacturer's identification mark shall be punched/engraved/embossed on the individual Item at the location shown in the Drg. or at appropriate location if not shown in the Drg.

PACKING:

9.0 Each Item shall be properly packed individually in a corrugated paper or durable polythene packet, and then a quantity of one motor set or in multiple thereof shall be packed in a wooden box. The vacant space in the wooden box shall be filled up properly with straws/paper shreds to avoid damage during handling and transportation. Two cards indicating description of items, C&D No., Drg./Specn. No. of items, Order reference and Qty per set duly signed by BHEL Inspection authority shall be tagged - one inside and another outside of the wooden box.

FREE REPLACEMENT OF DEFECTIVE MATERIAL:

10.0 Items found defective during assembly at BHEL shall be replaced by the firm free of cost on intimation from BHEL.

INFORMATION TO BE FURNISHED BY THE TENDERER IN THEIR OFFERS:

11.0 A list of Plant and Machinery available with tenderer for Manufacture, Testing and Inspection.

11.1 Deviation, if any, shall be clearly brought out from the drawing/specification. Even if the tenderer has no particular deviation in their offer, a Nil statement shall be submitted.

11.2 Tenderers alongwith their quotation shall furnish documents regarding performance of their past supplies of such Items to Railways.

12.0 This specification is equivalent to CLW specification no. 4TMS-095-0130 Rev00 *****

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