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Specification of Box Bearing (Part no.DL23.103)			



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SPECIFICATION NO. TM/HM/6/199 REV-1
SPECIFICATION OF BOX BEARING
(Part no. DL23.103)

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- 1.0 Scope:** This specification covers the dimensional, functional and material requirements with testing criteria of Box Bearing of tamping unit of CSM/DUO UNI tamping machine. This specification may be treated as provisional subject to modifications based on service performance.
- 2.0 Reference documents:** Following documents have been referred to in this specification. Full sets of relevant drawings and the referred codes/ specifications, duly incorporating the updated corrections/amendments, shall be available for reference at manufacturer's works.
- i) BS:970 (Pt.II)-1970 - Specification of direct hardening alloy steels .
 - ii) IS:77-1976 - Linseed oil for paints - specification.
 - iii) RDSO Drg. No. TM/0513 REV-1 - Box Bearing.
- 3.0 Functional Requirement:** It is provided in CSM/DUO/UNI tamping unit for holding the vibration shaft through bearing NU 2220 and ball bearing 6220. The box bearing is fixed in the central housing of tamping unit. All surfaces meant for machining shall be finished as mentioned in the drawing no. TM/0513 REV-1.
- 4.0 Dimension & Tolerance:** Dimensions and tolerances of the Box Bearing shall be as mentioned in RDSO drawing no. TM/ 0513 REV-1.
- 5.0 Material:** The Box bearing shall be made from steel of Grade 709M40 (EN-19) conforming to BS:970 (Pt.2) 1970- Specification of direct hardening alloy steels.
- 6.0 Manufacturing Process:** Box Bearing shall be made by either machining from plate/billet of specified material or by forging and machining process.
- 7.0 Marking:** Month and year of manufacture and manufacturer's code / identification shall be engraved / embossed on the non-functioning surface of Box Bearing.
- 8.0 Inspection and Acceptance Criteria:**
- i) Each component offered by manufacturer shall be checked visually for their surface finish, freedom from defects like porosity, cracks, improper edges etc. Machined surface shall be checked by any suitable pneumatic or electronic equipment.
 - ii) The component found suitable after visual inspection, shall be checked for their dimensions as per relevant drawing.

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- iii) Supplier shall produce the certificate that the raw material used for manufacturing of the Box Bearing conforms to the Grade 709 M 40 (EN-19) of BS:970 Part II as mentioned in para 5.0.
- iv) Manufacturer shall also produce a test result of chemical property/ analysis report of raw material used for manufacturing of the component.
- v) Minimum one no or 2 % sample of the Box Bearing randomly picked up out of each lot of consignment and shall be subjected to chemical composition test. The consignee shall test the material for chemical composition at his laboratory or get the material tested in a reputed laboratory having proper facilities for testing. Before sending the samples for testing, the same shall be duly sealed and secret coding shall be done.
- vi) Any deviations in the test result from the requirement of the specification and drawing shall be the cause of rejection of the component.

9.0 Packing and Protection: Each component shall be protected with one coat of boiled linseed oil conforming to IS: 77-1976 (linseed oil for paint) and shall be packed in card board case.

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