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Specification of Shaft for ballast distribution device of BCM and FRM (Part no. 64.09.7185)			



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SPECIFICATION NO.TM/HM/6/557
SPECIFICATION OF SHAFT FOR BALLAST DISTRIBUTION DEVICE OF BCM AND
FRM
(PART NO. 64.09.7185)

DTM-I	EDTM	Page 1 of 3
Prepared By:	Issued By:	

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SPECIFICATION OF SHAFT FOR BALLAST DISTRIBUTION DEVICE OF BCM AND FRM (PART NO. 64.09.7185)

- 1.0 Scope:** This specification covers the dimensional, functional and material requirements with testing criteria of shaft for ballast distribution device of BCM and FRM. 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 up-dated corrections/amendments, shall be available for reference at manufacturer's works.
- i) BS:970 (Pt.II)-1970 - Specification of direct hardening of alloy steels.
 - ii) IS:77-1976 - Linseed oil for paints - specification.
 - iii) RDSO Drg. No.- RDSO/TM/07/24 Shaft for ballast distribution device of BCM and FRM.
- 3.0 Functional requirement:** It is provided at the ballast distribution device beam and provides rotary motion to the belt roller. All surfaces meant for machining shall be finished as mentioned in the drawing no. RDSO/TM/07/24.
- 4.0 Dimension & Tolerance:** Dimensions and tolerances of Shaft shall be as mentioned in RDSO drawing no. RDSO/TM/07/24.
- 5.0 Material:** The Shaft shall be made from Grade 709M40 (EN-19) conforming to BS: 970 (Pt.2) 1970 Specification direct hardening of alloy steels.
- 6.0 Manufacturing Process:** Shaft shall be made by forging and machining process of specified material.
- 7.0 Heat treatment:** Shaft shall be heat treated with any suitable methods to achieve case hardness 220 to 230 BHN.
- 8.0 Marking:** Month and year of manufacture and manufacturer's code / identification shall be engraved / embossed on the non-functioning surface of Shaft.
- 9.0 Inspection and Acceptance Criteria:**
- i) Each component offered by manufacturer shall be checked visually for their surface finish, freedom from defect like porosity, cracks, improper edges etc. Machined surface shall be checked by any suitable pneumatic or electronic equipment.

DTM-I	EDTM	Page 2 of 3
Prepared By:	Issued By:	

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- ii) The component found suitable after visual inspection shall be checked for their dimensional characteristics as per relevant drawing.
- iii) Supplier shall produce the certificate that the raw material used for manufacturing of the component conforms to material specified as mentioned in Para 5.0.
- iv) Minimum one or 2% of sample randomly picked up from each lot of consignment shall be checked for their hardness as per para no.7.0.
- v) Minimum one no or 2 % sample of component 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 (NABL accredited or accredited by other international body like APLAC, MRA, ILAC etc) 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.

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

DTM-I	EDTM	Page 3 of 3
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