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Specification of Pin for lifting unit of CSM (Part no E150.24)			



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Track Machines and Monitoring

SPECIFICATION NO. TM/HM/6/568
SPECIFICATION OF PIN FOR LIFTING UNIT OF CSM
(Part no. E150.24)

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SPECIFICATION NO. TM/HM/6/568
SPECIFICATION OF PIN FOR LIFTING UNIT OF CSM
(Part no. E150.24)

- 1.0 Scope:** This specification covers the dimensional, functional and material requirements with testing criteria of Pin lifting unit of CSM. This specification may be treated as provisional subject to modifications based on service performance.
- 2.0 Reference Documents:** Following Specifications 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 - Part II - Direct hardening alloy steel - Specification.
 - ii) IS: 77-1976 - Linseed oil for paints - Specification.
 - iii) RDSO Drg. No. RDSO/TM/18/24 Pin for lifting unit of CSM.
- 3.0 Functional Requirement:** Pin for track lifting unit is used for fixing the track lifting cylinder of CSM tamping machine. All surfaces meant for machining shall be finished as mentioned in the drawing no. RDSO/TM/18/24.
- 4.0 Dimension & Tolerance:** Dimensions and tolerances of Pin shall be as mentioned in RDSO drawing no. RDSO/TM/18/24
- 5.0 Material:** The Pin shall be made from Steel of Grade 709 M 40 (EN-19) conforming to BS: 970 Part-II Specification of direct hardening alloy steel.
- 6.0 Manufacturing Process:** Pin shall be made by forging and machining process of specified material.
- 7.0 Heat Treatment:** Pin shall be heat treated with any suitable methods to achieve case hardness 55 to 60 HRC.
- 8.0 Marking:** Month and year of manufacture and manufacturer's code / identification shall be engraved / embossed on the non-functional surface of Pin.
- 9.0 Inspection And Acceptance Criteria:**
- i) Each components 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.

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- ii) The component found suitable after visual inspection, shall be checked for their dimensions as per relevant drawing.
- iii) 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.
- iv) Supplier shall produce the certificate that the raw material used for manufacturing of Pin conforms to the Grade 709 M 40 (EN-19) of BS: 970 Part-II.
- v) Minimum one no or 2 % sample of the component 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 boiled linseed oil conforming to IS: 77-1976 (linseed oil for paint) and shall be packed in cardboard case.

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