



**RESEARCH DESIGNS AND STANDARDS ORGANISATION
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Track Machines and Monitoring

**FUNCTIONAL REQUIREMENT SPECIFICATION NO.TM/HM/6/FRS/007
FUNCTIONAL REQUIREMENT SPECIFICATION OF BUFFER STOP FOR TAMPING
UNIT OF MPT MACHINE
(Part no. JT30.152)
(Date effective: --/--/2025)**

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UNIT OF MPT MACHINE

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- 1.0 Scope:** This functional requirement specification covers the dimensional, functional and material requirements with testing criteria of buffer stop for tamping unit of MPT machine. This functional requirement 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 functional requirement 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) IS: 2062 - 1992 - Steel for general engineering purposes - specification.
 - ii) IS: 77-1976 - Linseed oil for paints - specification.
 - iii) RDSO Drg. No. RDSO/TM/02/25 Buffer stop for tamping unit.
- 3.0 Functional requirement:** It is provided in the tamping unit to adjust piston rod length to maintain required distance between tamping tools according to sleeper density. All surfaces meant for machining shall be finished as mentioned in the drawing no. RDSO/TM/02/25.
- 4.0 Dimension & Tolerance:** Dimensions and tolerances of Buffer stop for tamping unit of MPT machine shall be as mentioned in RDSO drawing no. RDSO/TM/02/25.
- 5.0 Material:** The Buffer stop for tamping unit of MPT machine shall be made from Steel of Grade A or B (Mild Steel) conforming to IS:2062-1992 having minimum tensile strength 410 MPa i.e. 410 N/mm sq. with minimum percentage elongation of 23.
- 6.0 Manufacturing Process:** The Buffer stop for tamping unit of MPT machine shall be made by either machining from plate/billet of specified material or by forging or 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 Buffer stop for tamping unit of MPT machine.
- 8.0 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.

- ii) The component found suitable after visual inspection, shall be checked for their dimensions as per relevant drawing.
- iii) Supplier shall produce the certificate that the raw material used for manufacturing of the component conforms to the IS: 2062-1992 as mentioned in Para 5.0.
- iv) Manufacturer shall also produce a test result of chemical property/ analysis report of plate/bar/raw material used for manufacturing of the component.
- v) Any deviations in the test result from the requirement of the specification and drawing shall be the cause of rejection.

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.
