



Code of Practice for Maintenance, Operation and Testing of Track Jacks

M&EE Networking Group

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 Maintenance, Operation and Testing of Track Jacks

Document revision history

Issue	Date	Reason for change
1		First issue (now withdrawn)
2	Nov 05	Second issue (now withdrawn)
3	Jul 07	Revised to clarify requirement for thorough testing (now withdrawn)
4	Jan 12	Revised to include jack operating handles (now withdrawn)
5	Sep 14	Revised to cover jacks with separate SWL and jacks with all types of release mechanism. Now gives more detailed guidance to the functional testing.

Background

A sub-group of the M&EE Networking Group have looked at the requirements for the maintenance, operation and testing of track jacks. The M&EE Networking Group recommend this COP as good practice for the industry.

M&EE COPs are produced for the benefit of any industry partner who wishes to follow the good practice on any railway infrastructure. Where an infrastructure manager has mandated their own comparable requirements, the more onerous requirements should be followed as a minimum for work on their managed infrastructure.

The M&EE Networking Group makes no warranties, express or implied, that compliance with this document is sufficient on its own to ensure safe systems of work or operation. Users are reminded of their own duties under health and safety legislation.

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Sign off

The M&EE Networking Group agreed and signed off this Code of Practice on 17 September 2014 and published on 6 December 2014

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Purpose

This Code of Practice details the use (operation), maintenance, thorough examinations and testing required for track jacks.

Scope

This Code of Practice applies to operation, maintenance and testing of all types of track jacks used on the rail network.

Definitions

Track Jack Type 1	(Obstructionless) - A jack that will not protrude above rail height or come within 50 mm of the running edge (when lifting the rail) and can be lowered from full height within 10 seconds (under load).
Track Jack Type 2	A jack that will cause an obstruction to traffic (ie one falling outside the scope of Type 1) when placed under the rail but with a quick release mechanism enabling the jack to be immediately lowered from full height and be removed from under the track within a maximum of 10 seconds.
Track Jack Type 3	A jack that will cause an obstruction to traffic (ie one falling outside the scope of Type 1) when placed under the rail but cannot be quickly lowered from full height.
Track Jack Type 4	A jack that has been designed for track slewing.

1 Operations

- 1.1 The requirements for the operation of track jacks are detailed in RIS-1700-PLT Part 7.

2 Operator Daily/Shift Checks

2.1 Hydraulic Jack (All types)

- 2.1.1 Check oil level and top up if necessary.
- 2.1.2 Check that the thorough examination and test is not overdue.
- 2.1.3 Check jack extends fully with no load applied and the release mechanism operates correctly.
- 2.1.4 Visually inspect for damage to body or ram.
- 2.1.5 Inspect for leaks.
- 2.1.6 Inspect the operating handle for signs of damage, deformation or fracture. Ensure the handle is marked with the same unique identification number as the jack it belongs to. Ensure the handle can be inserted and removed from the jack body with ease.
- 2.1.7 If any defects are found, the jack should be marked or labelled defective and removed from service then either sent for repair and full examination/test, or be disposed of.

2.2 Mechanical Jack

- 2.2.1 Check that the thorough examination and test is not overdue.
- 2.2.2 With no load applied, check the jack fully extends and if a type 1 or 2 jack, that it returns to the lowered position when released.
- 2.2.3 With the stem fully extended visually inspect for damage to the stem, ratchet teeth, carrying handle and body.
- 2.2.4 Inspect the operating handle for signs of damage, deformation or fracture. Ensure the handle is marked with the same unique identification number as the jack it belongs to. Ensure it can be inserted and removed from the jack body with ease.

- 2.2.5 If any defects are found, the jack should be marked or labelled defective and removed from service then either sent for repair and full examination/test, or be disposed of.

3 Identification

- 3.1 Each jack should be marked with a unique identification number, the safe working load, and the date upon which the jack is due for its next examination or test. Where there are different safe working loads for the toe and head these should be clearly shown on the jack together with the location the safe working load refers to.
- 3.2 Each jack handle should be marked with the same unique identification number as the jack it belongs to.
- 3.3 All new jacks should be recorded in the jack owner's lifting equipment register.

4 Maintenance

- 4.1 All jacks should be subject to a maintenance regime which should be recorded. The maintenance regime should include the operating handle.
- 4.2 The maintenance should be carried out by a competent person, to a schedule in accordance with the maintenance regime.

5 Thorough Examination

- 5.1 Under the Lifting Operations and Lifting Equipment Regulations (LOLER), jacks are classed as lifting equipment and therefore should have a thorough examination every 12 months. Records of thorough examinations will be kept.

6 Functional Testing

6.1 General requirement

6.1.1 A functional test is to be completed:

- a) before first use of the jack.
- b) with thorough examination on a 12 monthly basis.
- c) following any repair.

6.1.2 If any defects are found the jack should either be repaired or be disposed of.

6.1.3 Records should be kept of all functional testing and repair.

6.1.4 All types of jacks should be tested to ensure that they adequately support the safe working load (SWL).

6.2 Specific requirement for Type 1

6.2.1 Load jack and check the relief valve is set to the SWL + 5%. Check that the jack fully retracts from maximum to minimum height, when loaded to 1% of the SWL or 50 kg, whichever is the least, in less than 10 seconds.

6.3 Specific requirement for Type 2

6.3.1 Check that the jack fully retracts from maximum to minimum height immediately, when loaded to 1% of the SWL or 50 kg, whichever is the least, and then removed from the track, all in less than 10 seconds.