

TECHNICAL INSTRUCTION

TI 104
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NETWORK RAIL - SIGNAL ENGINEERING

Signalling Maintenance Testing Handbook – Missing Equipment Checks

Relevant Standard: NR/L2/SIG/11231 Signalling Maintenance Testing Handbook

Background

A recent review of testing missing equipment has identified that the Signal Maintenance Testing Handbook instructions can be improved. To replace missing equipment, it is essential that checks are made that critically positioned equipment is actually put back in exactly the right place. This is particularly important for axle counters, but applies to other equipment as well. Whilst SMTH covers checking that equipment is positioned correctly, there are circumstances where there might be doubt about fulfilling the requirement. This Technical Instruction amends the content of SMTH to remove that doubt.

Abbreviations & Definitions

SMTH Signalling Maintenance Testing Handbook

NR/L2/SIG/11231 Signal Maintenance Testing Handbook
NR/SMTH/Part 2 Introduction and Overview Clause 4.6.

Amend SMTH Part 2 Clause 4.6 to read:

4.6 Testing After Replacement of Missing Equipment

Missing equipment shall be replaced using Maintenance Testing principles and Missing Equipment Test Plans. To qualify for replacement the missing equipment shall have been present and working prior to its damage or removal. Complete and accurate diagrams shall be available and the work shall not require any change to diagrams. An operationally equivalent replacement item shall be used. Particular care shall be taken to check that critically positioned equipment is replaced in the correct position and orientation, on the correct line and as indicated on the relevant diagrams. For example, a missing strike-in and strike-out axle counter head shall be replaced in the correct position to define the end of one axle counter section and the beginning of the next; a TPWS over speed loop shall be positioned to correctly detect a train travelling too fast. There are many further examples.

When dealing with missing equipment any other equipment nearby shall be checked for damage or disturbance.

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Because of the criticality of axle counters, amend the missing equipment test plan for an AzLM Axle Counter Rail Contact (amended test plan steps only indicated).

BEFORE REPLACEMENT

- 2 *Check* for evidence on site and on the diagrams that a rail contact was previously fitted. Pay particular attention to ensuring that the rail contact to be replaced is on the correct line. If no evidence is present, inform your supervisor.

AFTER REPLACEMENT

- 7 *Check* the position of the replacement rail contact in respect of correct line, clearance points, joints, etc.
- 18 *Check* with the signaller that the axle counter is showing clear after the section has been reset.
- 19 Where no train is due, simulate a train passing by undertaking a "Functional Test with Dummy Wheel", as described in the final section of SMS Test 45 (noting that this test will occupy and clear any adjacent axle counter sections.) *Check* with the signaller that the correct axle counter section(s) occupies and clears in correspondence with the use of the dummy wheel.
- 20 Where a train is due, the simulation test step 19 may be omitted. Instead, *observe* a train through the section and *check* with the signaller that the correct axle counter section(s) occupies and clears in correspondence with the train.

Compliance Requirements

This TI shall be implemented on receipt.

Action Required

This standard contains mandatory actions.

Staff to be Briefed

All signal engineering staff to be briefed.

Expiry Date

To be withdrawn when the NR/L2/SIG/11231 Signalling Maintenance Testing Handbook relevant sections are re-issued.

END



Documents

Document Sharing Hub