

Ref:	NR/L2/TRK/001/mod08
Issue:	6
Date:	01 December 2012
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Broken or damaged rails

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1 Scope

This module of NR/L2/TRK/001 specifies:

- a) what are broken or damaged rails;
- b) the actions to be taken on the discovery of a broken or damaged rail;
- c) inspection of broken or damaged rails;
- d) remedial action for broken and damaged rails;
- e) the reporting requirements for broken rails.

Action required for broken fishplates is included in NR/L2/TRK/001/mod04, Rail Joints.

Instructions for signallers are contained in GE/RT8000/TS1 (Rule Book - General Signalling Regulations).

2 Discovery and inspection of broken or damaged rails

2.1 Description of broken or damaged rails

- Table 1 describes various types of broken rail. Table 2 describes damaged rails.

2.2 Broken rails

2.2.1 Immediate action

On discovery of a broken rail, block the line.

The line shall remain blocked if either of the following apply:

- a) the break is in a switch or crossing rail which is free to move;
- b) the break is within 2 metres of heavy or severe rolling contact fatigue (RCF).

2.2.2 Authority to remove line blockage

To determine whether the line blockage can be lifted, the break shall be inspected and assessed by a competent person (see section 2.5).

2.2.3 Follow-up action

Apply mitigation and undertake remedial action in accordance with Tables 3 to 6.

2.3 Rail head damaged rails (excluding arcing damage)

2.3.1 Immediate action

The immediate action for rail head damage (excluding arcing damage) is 'block the line'.

2.3.2 Authority to remove line blockage

To determine whether the line blockage can be lifted, the damage to the rail head shall be inspected and assessed by a competent person (see section 2.5).

2.3.3 Follow-up action

Apply mitigation and undertake remedial action in accordance with Table 7.

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2.4 Arcing damage to head or foot

Undertake remedial action for arcing damage to the head or foot of the rail in accordance with Tables 8 and 9.

2.5 Competent Person

Requirements for assessing competency are specified in NR/L2/CTM/011.

There are two levels of competency:

- a) rail defect nominee (RDN);
- b) rail defect examiner (RDE).

A RDN is only permitted to allow trains to pass over broken rails at a maximum speed of 5mph.

NOTE The RDN course is usually attended by (and is designed for) a non-track member of Network Rail who has little, or limited, track inspection or maintenance knowledge.

3 Use of emergency clamped fishplates and bridging pieces

Secure emergency clamped fishplates with the required number of approved clamps, on each side of the break.

Where bridging pieces are used, they shall be fitted and secured in pairs (one on each rail).

The use of a single bridging piece could introduce a twist fault.

4 Rail breaks on electrified lines

On lines electrified by either the conductor rail or overhead wire system, arrange for the fitting of temporary bonds around the break, in accordance with AC or DC Electrified Lines Instructions.

5 Reporting broken rails

5.1 Reportable breaks

Report all breaks which fall into the 'reportable broken rail' category as shown in Table 1.

5.2 Classification

Classify broken rails in accordance with RT/CE/S/057.