

Train Working

## NTR 412 Defective running gear

### Description

This document describes the requirements for dealing with damaged vehicle wheels, suspension equipment, drawgear, and overheating axle box bearings and defective traction.

Not what you are looking for? See more [NTR Rules](#)

### Purpose

To prescribe the rules for dealing with damaged vehicle wheels, suspension equipment, drawgear, and overheating axle box bearings and defective traction in the Network.

### Principle

If train running gear is suspected or reported to be defective during travel, the Train Crew must:

- if necessary, stop the train
- tell the Signaller
- meet the requirements of Rule [NTR 400 Protecting rail traffic](#)
- determine the nature and extent of the defect.

### Damaged wheels

#### Wheel scale

If there is only surface wheel scale on a vehicle's wheel tread, the vehicle may travel at normal speed.

For greater thickness of wheel scale, Drivers or Track Vehicle Operators must act in accordance with the requirements specified in the *Train Operating Conditions (TOC) manual*.

#### Flat spots (wheel skids)

If there is only one flat spot of less than 25mm length on a vehicle's wheel tread, the vehicle may travel at normal speed.

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For multiple or larger flat spots, Drivers and Track Vehicle Operators must act in accordance with the requirements specified in the TOC manual.

## Defective suspension equipment

If suspension equipment is defective, it must be dealt with in accordance with the requirements specified in the TOC manual.

## Overheating axle boxes

If a Train Crew becomes aware of, or is warned about a hot axle box, the Driver must:

- stop the train
- tell the Signaller.

If a Train Crew becomes aware of, or is alerted about, a warm axle box, they must assess whether the affected vehicle can travel, and at what speed.

If the affected vehicle can travel safely, the Train Crew must re-inspect the axle box bearing in accordance with the requirements specified in the TOC manual.

## Defective drawgear

If drawgear is confirmed to be defective, the Train Crew must:

- if possible, replace or repair it, or
- arrange to detach and stable the vehicle.

If the drawgear cannot be replaced or repaired, the Train Crew may:

- re-marshal the defective vehicle as the rearmost in the consist, or
- tow the vehicle, with an approved towing device in place of the vehicle's defective drawgear, in accordance with the requirements specified in the TOC manual.

If a towing device cannot be used, the Train Crew must follow the requirements of [NTR 416 Disabled rail traffic](#).

## Removal of detached drawgear

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The Train Crew must tell the Signaller whether detached drawgear:

- has been removed from the four-foot, clear of the line, or
- needs protection.

If necessary, the Signaller must arrange for detached drawgear equipment to be removed clear of the line.

## Wheelspin

Drivers must limit wheelspin. If a motive power unit undergoes uncontrollable wheelspin, the Train Crew must:

- tell the Signaller about the Condition Affecting the Network (CAN), and
- if necessary, follow the requirements of NTR 400 Protecting rail traffic.

The Network Controller must arrange for Maintenance Representatives to inspect and assess the affected portion of track.

If necessary, the Maintenance Representatives must arrange for placement of speed restriction signs in accordance with NSG 604 Indicators and signs.

## Oversanding

If a locomotive applies sand continuously or excessively, the Train Crew must act in accordance with the requirements specified in the TOC manual.

The Network Controller must arrange for Maintenance Representatives to inspect and assess the affected portion of track.

If oversanding occurs in track-circuited territory, the Signaller responsible for the affected portion of track must treat the track-circuits as unreliable.

Until the line is certified, rail traffic must be block worked over the affected portion of track.

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## Related Documents

NPR 720 Protecting rail traffic

NPR 750 Protecting activities associated with in service rail traffic