

GE/RT8000 - M4
Rule Book

Module M4

Floods and snow

Issue 1

June 2003

Comes into force 6 December 2003



Issue	Date	Comments	Comes into force
1	June 2003	Initial issue	6 December 2003

You will need this module if you are involved in the arrangements for:

- dealing with floods
- clearing snow
- operating miniature and independent snow ploughs.

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Floods

*The people responsible: **signaller, driver, operations controller, Network Rail area operations manager, person in charge, rolling stock technician***

1.1 Conditions for train movement

On lines which are flooded, trains may only be permitted to run as set out in diagram M4.1 on page 4.

Although these conditions also apply to lines which have conductor rails, you must refer to company instructions for the movement of DC traction units.

**driver,
signaller,
operations
controller**

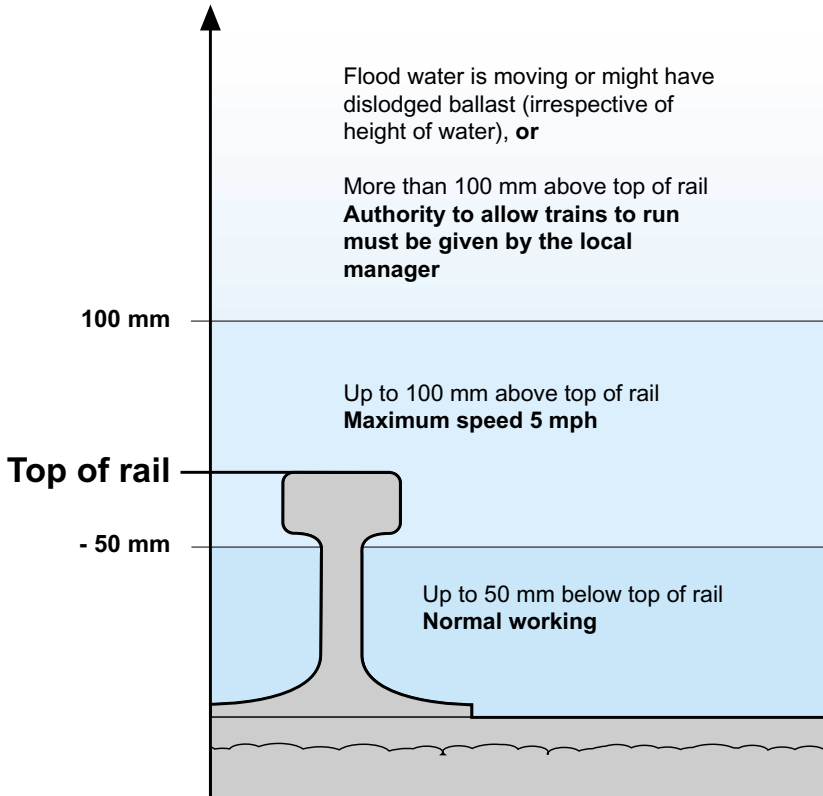


Diagram M4.1

Conditions for train movement

signaller

You must get authority to allow trains to run from the Network Rail area operations manager in the situation described below.

local manager

You must only give authority to allow trains to run after consulting the infrastructure manager and telling train operators when:

- flood water is moving or the ballast may have been dislodged (no matter what height the water is), or
- flood water is more than 100 mm above the top of the rail.

1.2 Vehicles affected by floods or high-pressure water jets

You must arrange for the operations controller to be told if vehicles with roller bearings are stabled in, or pass through flood water above the bottom of the axle box.

You must carry out this instruction if the vehicle axle boxes might have been affected by high-pressure water jets.

You must tell the rolling stock technician so that the axle bearings can be specially examined.

You must make this examination as soon as possible without causing delay or cancellation.

driver,
person in
charge



operations
controller

rolling stock
technician



This could be a person in charge of a location where the vehicles were affected by flooding or high pressure water jets.

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Snow

The people responsible: driver, signaller, operations controller

2.1 Reporting procedure

driver

You must report any build-up of snow to the signaller, you must stop your train specially to do so if necessary.

signaller

If special working arrangements need to be introduced, you must tell Operations Control.

2.2 Train running

operations controller, signaller

If you are told that snow is deeper than 200 mm above rail level, you must suspend the running of trains.

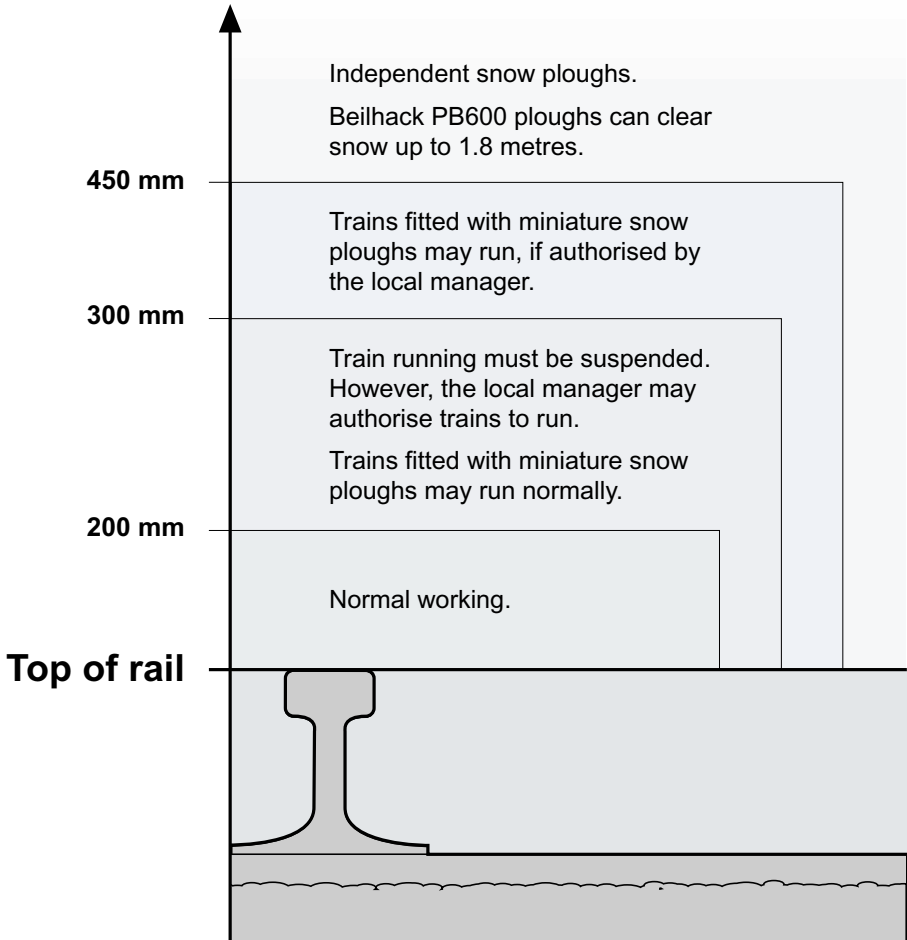
However, you can allow trains which have miniature snow ploughs to continue to run normally if the snow is not deeper than 300 mm above rail level.

If the snow is deeper than shown above, you must get authority from the Network Rail area operations manager to allow trains to run.

2.3 Lines with conductor rails

operations controller, driver, signaller

You must carry out the working instructions in GO/RT3091 *DC Electrified lines instructions* or other Network Rail DC lines booklets applying to lines which have conductor rails.

**Diagram M4.2****Depth of snow**

signaller,
operations
controller
awareness

2.4 Lines completely blocked by snow

If any section of line is completely blocked by snow, you must not permit trains to run until you have received the authority of the infrastructure contractor.

You must arrange for the electrical traction system to be isolated if:

- conductor rails are covered by snow and it is to be removed by hand digging
- personnel need to stand on vehicles under or next to overhead line equipment to remove drifting snow.

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Miniature snow ploughs

The people responsible: driver, fleet engineer

3.1 Movement in sidings

You must:

driver

- not allow the miniature snow plough blades to come in to contact with the front stays of buffer stops
- avoid damaging wheel stops and derailleurs.

3.2 Removing the centre blade

Between 1 April and 30 November you must make sure that the centre blade is not normally left in position.

fleet
engineer

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Independent snow ploughs

The people responsible: traction inspector, driver, rolling stock technician, person in charge of work on railway infrastructure, signaller, electrification engineer

Reference to the term traction inspector in this section includes any other person carrying out these duties.

4.1 Person in charge

traction
inspector

You are responsible for taking charge when snow ploughing is taking place (see section 4.3 of this module).

4.2 Moving ploughs when not clearing snow

driver,
traction
inspector

You must carry out the following instructions:

- The plough must not be propelled unless you need to do this to help with the progress of ploughing or when specially authorised for test runs or staff training.
- The speed of the train must not exceed 45 mph.
- Two ploughs may be coupled nose to nose by a draw bar when not ploughing, or for an authorised test run.
- Ploughs must not be marshalled with other types of vehicles unless specially authorised.
- No more than two ploughs may be hauled as a trailing load.

4.3 Ploughing instructions

The ploughs normally work in pairs, coupled one each end of two locomotives working in multiple or tandem between the ploughs.

driver,
traction
inspector

a) General instructions

You must carry out the following instructions:

- You can use any type of locomotive (except a shunting locomotive).
- The train must not exceed 45 mph.
- A guard does not need to be provided.

b) Traction inspector's duties

You must:

- make sure the ploughs are worked properly
- keep in touch with the signaller about the priorities of clearing lines
- find out information about any electrified lines
- keep a good lookout when the plough is travelling.

traction
inspector

During ploughing you may authorise the driver of locomotives working in multiple to drive from the leading cab of the second locomotive.

c) Driver's duties

You must make sure that:

- the automatic brake is working on the ploughs
- on the front of the leading plough two white lights are displayed (which you may remove during ploughing if they are likely to become displaced or damaged).

driver

4.4 Side flaps, spade plates and skids

rolling stock technician

You must make sure that this equipment is locked in the retracted position when proceeding to or from the site of ploughing.

You must lower the retractable skids only when authorised by the person in charge of work on the railway infrastructure.

person in charge of work on railway infrastructure

You must:

- authorise the spade plates or retractable flaps (or both) to be lowered or brought into the operative position
- accompany the ploughs to identify any places where this equipment must be retracted.

rolling stock technician

You must:

- be competent in the operation of independent snow ploughs
- set and retract side flaps, spade plates and skids, and be present when these are being used.

4.5 Working of adjacent lines

signaller

You must make sure that adjacent lines are clear throughout when ploughing is in progress.

You do not need to carry out this instruction when ploughs are set to push snow to the cess side only, as long as the person in charge has made sure that:

- there is no danger to trains on the other line, and
- you have been told about this arrangement.

traction inspector

When in charge of a plough which is set to push snow to the cess side, trains can continue to pass on the adjacent line as long as you:

- make sure there is no danger to trains on the other line, and
- have told the signaller about the arrangements.

4.6 Movements in sidings

You must make sure that ploughs do not make contact with the front stays of buffer stops.

You must avoid damage to wheel stops, derailers and other similar equipment.

driver,
traction
inspector

4.7 Operating on electrified lines

a) Before ploughing starts

Before ploughing starts on an electrified line, you must:

- tell the electrical control operator
- obtain an isolation on a line which has a conductor rail.

signaller

b) Line electrified by the overhead system

If the depth of snow is 900 mm or less, you do not need to get an isolation.

If the depth of snow is more than 900 mm, you must tell the electrification engineer that ploughing is to take place and not allow ploughing to start unless authorised by the electrification engineer.

If you are told that the depth of snow is more than 900 mm, you must arrange for:

- an isolation, or
- a competent electrification person to accompany the plough, in which case there is no need to obtain an isolation unless that person considers it necessary.

electrification
engineer

You do not have to earth the equipment unless personnel need to approach the overhead line equipment.

electrification engineer If personnel do need to approach the overhead line equipment, you must arrange for the issue of RT3116 Overhead Line Permit to work as shown in module AC2 AC *electrified lines: Working on or near to the OLE*.

4.8 Additional instructions for Beilhack PB600 ploughs

a) General instructions

traction inspector, driver

You must not:

- couple ploughs together nose to nose
- haul ploughs unless authorised in special instructions.

b) Working instructions

You can operate this plough to clear snow up to 1.8 metres above rail level.

c) Setting the blades

rolling stock technician

Before ploughing starts, you must:

- on a double line, set the blades to push snow to the left-hand side of the line in the direction of travel
- on a single line, set the blades to the normal 'v' arrangement.

The term	Includes or means:
Conductor rail	A rail through which electricity is supplied to electric-powered trains.
Electrified line	A line that is electrified either by 25,000 volts AC overhead lines or by 750 volts DC conductor rails. Local instructions are issued for certain sections of route electrified by 1500 volts DC overhead lines.
Operations Control	The general term used for Network Rail Operations Control offices.
Overhead line equipment	Wires, suspended over the railway line for supplying electricity to electric trains. This includes associated: <ul style="list-style-type: none">• fittings• insulators• feeders• switches• jumpers• return conductors.
Rolling stock technician	A person who is authorised and has the necessary technical competence to examine or repair specified items of equipment forming part of a train or vehicle.
Siding	A line on which vehicles are marshalled, stabled, loaded, unloaded or serviced clear of a running line.
Single line	One line is available for movements in both directions.
Traction unit	Locomotive, multiple unit, self-propelled rail vehicle or road/rail vehicle operating in rail mode.

The term	Includes or means:
Train	Light locomotive, self-propelled rail vehicle or road-rail vehicle in rail mode.
Train operator	The company responsible for operating a train.



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