

GE/RT8000/TW1
Rule Book

Preparation and movement of trains

General

Issue 8

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For information regarding the Rule Book, contact:



enquirydesk@rssb.co.uk

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You will need this module if you carry out the duties of:

- a driver
- a guard
- an operations controller
- a shunter
- a train preparer
- a signaller
- a rolling stock technician
- a train operator's controller.

Conventions used in this module	Example
A black line in the margin indicates a change to that rule and is shown when published in the module for the first time.	
Green text in the margin indicates who is responsible for carrying out the Rule.	driver
A white i in a blue box indicates that there is information provided at the bottom of the page.	
<div style="border: 2px solid red; padding: 5px;">A rule printed inside a red box is considered to be critical and is therefore emphasised in this way.</div>	

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1 Before starting the train

*The people responsible: **signaller, driver, guard, train operator's controller, train preparer***

1.1 General responsibilities

To do your job safely and efficiently you must understand specific traincrew duties.

signaller

When working trains, you must make sure that:

- your first consideration is safety
- safety duties take priority over all other duties
- as far as possible, the train runs to time and any avoidable delay is prevented.

**driver,
guard**

You must reach a clear understanding with any other person who is involved in the preparation or movement of the train.

You are responsible for:

- the safe working of the train
- preparing trains (if necessary)
- carrying out your duties as shown in module M1 *Train stopped by train accident, fire or accidental division* and M2 *Train stopped by train failure* if there is a train accident or failure
- the safety of passengers on a train when it is a Driver Only (DO) passenger train.

driver

You must be present in the driving cab when your train is moving.

You must only allow another person to take charge of your train if that person:

- is authorised to be in the cab
- has been passed as competent to drive that type of traction
- has the required route knowledge of the portion of line over which the train is travelling.

driver

Only the following people are authorised to drive the train:

- A qualified driver, assessor or instructor who has been passed as competent to drive the type of train concerned.
- An authorised person under the direct supervision of an assessor, instructor or a driver who is qualified to instruct.

You will be told if a guard is provided for a train that was booked to be DO.

**train
operator's
controller**

You must make sure the driver is told when a guard is provided to work a train that is booked to be DO.

guard

You are responsible for:

- the safety of passengers on a passenger train
- carrying out your duties as shown in module M1 *Train stopped by train accident, fire or accidental division* if there is a train accident
- giving the driver any necessary instructions to do with the safe working of the train
- preparing trains (if necessary).

You must also co-operate with the driver when asked to do so.

1.2 Personal equipment

When on duty, you must have with you:

- a handlamp
- a carriage key
- a gangway door key
- high-visibility clothing
- a watch
- up-to-date notices for all lines over which you are required to work
- a supply of Form RT3185 Reporting a Signal/AWS/TPWS/ATP/TVM Failure or Irregularity
- any other equipment your company says you must have.

driver,
guard

You must also have:

- a whistle
- a red flag and green flag.

guard

You must also have with you 10 detonators if you are:

- working a locomotive-hauled passenger train (except a push/pull train), or
- required to ride in a freight brake van.

You must get and sign for all notices.

driver,
guard

1.3 Attending for and leaving duty

When attending for duty you must read the notices that apply to you.

driver,
guard

You must only work a train that you are **not** rostered to work if you are instructed to do so.

Before leaving duty, you must hand in a full written report of the circumstances of any irregularity or exceptional incident.

1.4 Route and traction knowledge requirements

a) Driver's responsibilities

driver

When working a train, you must:

- have the knowledge you need for the entire route over which you are required to work, or
- be accompanied by a competent conductor driver if you do not have that route knowledge.

b) Explaining traction knowledge to the conductor driver

If the conductor driver is not familiar with the type of traction concerned, you must explain before starting the journey:

- how to stop the train in an emergency
- where the emergency equipment is located
- how to shut down the traction unit in an emergency.

c) Route knowledge

If you are being conducted over a portion of line you are not familiar with, you must take note of:

- signals
- speed restrictions
- other features about the line.

d) Conductor driver's responsibilities

conductor driver

If you are the conductor driver, you must:

- take responsibility for the safe working of the train
- observe all signals and speed restrictions
- drive the train if authorised and competent to do so.

You must carry out the driver's instructions in module S4 *Trains or shunting movements detained, or vehicles left, on running lines*, whether you are driving the train or not. You must pass on to the other driver any instructions that you are given by a signaller.

**conductor
driver**

If you are not driving the train, you must leave the driving to the other driver and give the necessary instructions concerning:

- signals
- speed restrictions
- gradients
- curves
- other features of the line the driver needs to know.

e) Guard's route knowledge

You must:

guard

- have the knowledge you need for the entire route over which you are required to work
- if you do not have that route knowledge, be accompanied by a person who has that knowledge.

1.5 Driving cab equipment

When preparing a train for service, you must check that the following equipment is available in each driving cab or other location, as shown in local instructions, for the type of rolling stock concerned:

**driver,
train
preparer**

- at least 10 detonators
- two track circuit operating clips
- two red flags (one in each cab of a multiple unit)
- a spare tail lamp or hand lamp (only necessary when working locomotive hauled DO trains)
- any other equipment shown in the instructions for the type of train concerned.

driver,
train
preparer

If any of the equipment shown above is kept in a sealed case or cupboard, you must check the seal has not been broken.

If the seal has been broken, you must:

- check that all the equipment is there
- arrange for missing items to be replaced.

If any equipment is not available, you must not allow the train to enter service.

1.6 Attaching a traction unit to a train or vehicles

driver

You must:

- stop at any distance set out in the instructions for the class of traction unit involved
- always stop the traction unit 2 metres from the vehicle **i**
- move forward only when authorised by the shunter (or when it is safe to do so if a shunter is not with you).



You must always stop 2 metres from any other vehicle, as well as any other distance that is shown in the instructions for the class of traction unit concerned. This will be issued in your train operating company instructions.

2

Classification and speed of trains

The people responsible: driver, train preparer

2.1 Description and classification of trains

The table on page 16 shows the classification used to identify the types of train. You must use the information in this table when:

- preparing the train for service
- the train is in service.

driver,
train
preparer

2.2 If the classification of a train has been changed

You must tell the signaller if the classification of the train is different, or has been changed, from that published.

driver,
train
preparer

Table of classification

Description	Classification
Express passenger train Nominated postal or parcels train Breakdown or overhead line equipment train going to clear the line or returning from there (1Z99) Traction unit going to assist a failed train (1Z99) Snow plough going to clear the line (1Z99)	1
Class 373 train	9
Ordinary passenger train Breakdown or overhead line equipment train not going to clear the line (2Z99) Officers' special train (2Z01)	2
Freight train which can run at more than 75 mph A parcels train Autumn-railhead treatment train Empty coaching stock train if specially authorised	3
Freight train which can run up to 75 mph	4
Empty coaching stock train	5
Freight train which can run up to 60 mph	6
Freight train which can run up to 45 mph	7
Freight train which can run at, or is timed to run at, 35 mph or less	8
Light locomotive or locomotives	0

3

Communications

*The people responsible: **signaller, driver, guard, operations controller***

3.1 General

You must give all instructions to the driver by one of the following ways: **i**

- direct (face to face), or
- direct (via telephone or radio), or
- through the guard, shunter, pilotman, handsignaller, or
- through any other person who is competent in the relevant rules.

signaller

You will receive the signaller's instructions by one of the following ways: **i**

- direct (face to face)
- direct (via telephone or radio)
- through the guard, shunter, pilotman, handsignaller
- through any other person who is competent in the relevant rules.

driver

i

The priority for using the various methods of signaller to driver communication is shown in this section.

3.2 When being relieved

driver,
guard

You must give the relieving driver or guard all necessary instructions and information concerning the safe operation of the train.

This must include:

- any operational requirements affecting the safe working of the train
- any instructions issued by the signaller
- any defects with the train which the new driver or guard needs to know.

3.3 Train radio equipment - general

a) Using the train radio system safely

driver

You must not use the radio when the train is moving if you might become distracted and put the train in danger.

b) Emergency call facility

driver,
guard

You must only use the emergency call facility when it is necessary to:

- give immediate advice for trains to be stopped or cautioned in connection with an accident, obstruction or other exceptional incident
- call the emergency services.

signaller,
operations
controller

You must answer an emergency call **immediately**.

3.4 Cab secure radio (CSR)

a) Cab secure radio (CSR) equipment (where fitted)

You must use CSR as the normal method of communication with the signaller.

driver

You must only use a signal-post telephone if it is not possible to communicate using the CSR.

b) Boundaries between CSR radio areas

The sign shown indicates boundaries between radio areas.

When a train passes one of these signs, the channel normally changes automatically.

If the channel does not change automatically, you must set up the radio to the new radio area immediately.



c) Receiving a stop message

If you receive a stop message, you must:

- bring your train to a stand immediately
- acknowledge the stop message when at a standstill
- not restart your train until you have received authority from the signaller.

3.5 National Radio Network (NRN)

a) NRN radio equipment

**driver,
guard**

You must use NRN equipment in driving cabs only in the situations described in this section.

You must keep calls as brief as possible. **i**

If you make a call under the emergency procedure, you will cut off any normal calls and you will be connected immediately to Operations Control.

guard

You must not use the NRN in the cab from which a train is being driven.

signaller

If you cannot call the driver on the NRN, you must not send messages to the driver through anyone else. Instead, you must arrange for the driver to contact you direct.

b) Boundaries between NRN zones

driver

The sign shown indicates boundaries between NRN radio zones.

On passing one of these signs, you must set the radio to the zone channel number shown.



Each radio zone is divided into a number of base stations which can only handle one call at a time.

c) Using NRN for general communication

You must only use the NRN in driving cabs if:

- you need to communicate with the signaller at a signal where the telephone has failed
- you need to communicate with the signaller at a signal at which there is one of the signs indicating there is limited clearance at the telephone (you can find more instructions in module S4 *Trains or shunting movements detained, or vehicles left, on running lines*)
- you need to find out or give information concerning train working, delays or connectional arrangements
- it has been published in instructions that it can be used in connection with engineering work.

driver,
guard

d) Using NRN in an emergency

You should use the emergency call facility to give advice for trains to be stopped immediately or cautioned in connection with an accident, obstruction or other exceptional incident.

If you have not spoken to the signaller because you used the emergency call procedure to speak to Operations Control, you must:

- bring your train to a stand immediately and tell the signaller using any available telephone
- carry out any protection of the line, if necessary, as shown in module M1 *Train stopped by train accident, fire or accidental division*
- not restart your train until you have received authority to do so from the signaller.

driver

e) Using NRN during a technical failure**driver**

You should use the NRN radio equipment in driving cabs:

- if your train has failed and needs assistance
- if you need technical advice in connection with the failure of, or a defect on, your train
- in connection with a technical examination of your train.

You can use the emergency call facility during a technical failure but only if there is no way of calling the signaller direct.

3.6 Driver-guard communication systems

a) Bell or buzzer code

When using the bell or buzzer to communicate, you must use the following codes:

driver,
guard

Code	Meaning
1	Stop
1-2	Close doors (power-operated doors)
2	Ready to start
2-2	Do not open doors (driver and guard to speak to one another)
3	Set back
3-1	Lock central door locking
3-2-1	Testing doors
3-3	Guard required by driver, or guard or driver to speak on the telephone
3-3-1	Release central door locking
4	Slow down
6	Draw forward
9	Police assistance required

When using the bell or buzzer, you must make sure that all codes are:

- made carefully, clearly and distinctly, with pauses clearly marked
- acknowledged by repetition (except for the 3-2-1 code).

driver

If you receive a code '9', you must get police assistance at the next convenient stopping point. You must arrange this by telling the signaller, in the quickest way possible, using one of the following:

- cab emergency radio
- any available telephone, or
- any radio system.

b) Cab-to-cab telephone**driver,
guard**

You must:

- use the telephone only for essential conversations concerning the working of the train
- not use the telephone instead of the bell or buzzer codes to control movements of trains.

4 External train lights

The people responsible: driver, guard, train preparer

4.1 Headlights and marker lights

a) When lights must be on

You must make sure that any marker lights at the front of your train are switched on when the train is:

driver

- on a running line
- moving on any line or in a siding
- being propelled in the right direction.

You must make sure that the headlight (fixed or portable) at the front of your train is:

- switched on when the train is moving on a running line
- displaying the correct day or night beam.

b) When lights must be off

You must make sure that the headlight (fixed or portable) is switched off:

- in a depot, yard or siding
- when stabled on a running line.

c) At a reversing point

Before changing ends at a reversing point, you must:

- switch off the headlight and marker lights
- switch on any built-in tail lamps.

4.2 Tail lamps

driver,
guard,
train
preparer

You must make sure there is a tail lamp that is lit at the rear of the train when it is:

- on a running line
- on a through or reception siding
- being propelled in the right direction.

When two built-in electric tail lamps are provided, you must make sure both are lit where possible. At least one must be lit for a train to enter service. See Part B section 17 of module TW5 *Preparation and movement of trains: Defective or isolated vehicles and on-train equipment*.

You must make sure that no other tail lamp is displayed at any other position in the train other than at the rear of the last vehicle.

driver

You must make sure that there is a tail lamp that is lit at the rear of the locomotive whenever you are working:

- a light locomotive
- a locomotive assisting a train in the rear.

4.3 Battery-operated headlight or tail lamps

driver,
guard,
train
preparer

You must treat a battery-operated headlight or tail lamp as being defective and take it out of use if you are not sure if the light or lamp is working correctly.

4.4 Lights on shunting locomotives

driver

You must make sure there is at least one red and one white light displayed at each end of a shunting locomotive (where these are fitted) when it is being used for shunting purposes.

4.5 Lights when making a wrong-direction movement

a) Movement of less than 400 metres ($\frac{1}{4}$ mile)

When making a wrong-direction movement of less than 400 metres ($\frac{1}{4}$ mile), you need not change:

- the normal head or marker lights
- the tail lamp.

driver

b) Movement of more than 400 metres ($\frac{1}{4}$ mile)

You must make sure that the following are lit and displayed on the leading end of the movement:

- headlights
- marker lights.

You must make sure a tail lamp is lit at the rear end of the movement.

You can use a portable headlight or a handlamp if the above lights or lamps are not available.

c) Assisting train moving towards a failed train

When making a wrong-direction movement towards a failed train, you must make sure you display normal headlights at both ends of your train and have switched off the tail lamp.

4.6 Lights when detained on a running line which is used by trains travelling in the opposite direction

**driver,
guard**

If your train is crossed over to a line on which trains run in the opposite direction and the movement is then detained, you must during darkness, fog or falling snow or if in a tunnel, make sure that you:

- switch on the tail lamp at the front of the train
- have switched off all other lights at the front and rear of the train.

You do not need to carry out this instruction if the line on which you are detained is bi-directional.

5

Travelling in driving cabs

The people responsible: driver, guard, shunter, rolling stock technician

You may only allow the following personnel to travel in a driving cab:

driver

- Another driver in the course of his duties.
- A guard or shunter when authorised in connection with his duties.
- A rolling stock technician in connection with his duties.
- A pilotman.
- A person authorised by the local Network Rail area operations manager when carrying out duties in connection with an emergency.
- A person authorised by the PICOP or Engineering Supervisor to give instructions regarding the movement of your train in a possession.
- The holder of a driving cab pass.

You must make sure that at any one time there are no more than four people (including yourself) in the cab from which you are driving the train. However, this does not apply if:

- you are authorised by a person holding a cab pass endorsed **AUTHORISED TO INSTRUCT OR ASSESS, and**
- that person is in the driving cab when the circumstances apply.

**guard,
shunter**

You must only travel in a driving cab of a train if:

- you are a member of traincrew travelling in the course of your duties, but only when specially authorised
- the driver has asked you to travel in the leading cab in those circumstances where specific authority is given in the rules
- you are a shunter carrying out shunting operations.

**rolling
stock
technician**

You must only travel in the driving cab of a train if you are required to do so in connection with your duties.

6

Preparing the train

*The person responsible: **train preparer***

General preparation

Checks to be carried out on all trains

Before the train enters service, or after attaching or detaching vehicles during the journey, you are responsible for carrying out the instructions for working the automatic brake with the driver as shown in section 3 of module TW3 *Preparation and movement of locomotive-hauled trains*.

**train
preparer**

You must check that:

- all vehicles are properly coupled, including the brake-pipe and electrical connections
- the necessary lamps are provided on the train
- the load and formation of the train comply with the relevant rules and instructions
- any locomotive or vehicle in the train that is not registered with Network Rail, has been examined and authorised fit to travel over Network Rail lines
- all vehicles appear safe to travel
- all handbrakes are released (except where it is the driver's responsibility on multiple units).

**train
preparer**

You must also check that:

- all the doors are properly closed on a passenger or empty coaching stock train
- two track circuit operating clips must be available for use in or next to each brake compartment or in each postal NSX and NSA vehicle.

On a freight train you must also check that:

- all the vehicles appear properly loaded
- all doors and sheets are properly fastened
- all straps and similar equipment are properly put away or secured.

You must tell the driver:

- about any items of defective or isolated on-train equipment
- when a vehicle, or vehicles, with built-in hot axle box detectors is being conveyed on the train.

7

Hauling dead traction units **i**

*The people responsible: **train operator's controller, operations controller, driver, train preparer, rolling stock technician***

These instructions do **not** apply to movements:

- to clear running lines following a failure
- in sidings.

7.1 Authority and arrangements for movements

When more than two locomotives (including hauling and dead locomotive) are to be coupled together, you must get the authority of the Network Rail Operations Control unless it is authorised in the *Sectional Appendix*.

Unless previously published in a notice, you must get the authority through Network Rail Operations Control before:

- a locomotive is hauled dead
- a multiple unit (unless it is condemned) is hauled in a freight train.

Before you agree the arrangements for moving a dead traction unit, you must check whether any special conditions apply.

**train
operator's
controller**

**operations
controller**



A dead traction unit is any traction unit that is shut down and being hauled in a train. This includes an on-track machine.

**train
operator's
controller**

You do not need to get authority when a dead locomotive is being moved:

- for traffic purposes, if it can be moved at its normal permitted maximum speed and both automatic and parking brakes are fully operational, or
- to a maintenance depot or siding after a failure.

7.2 Providing riders

**train
operator's
controller,
driver,
operations
controller**

A rider need only be provided if one of the following applies:

a) Fleet engineer provides a rider

Operations Control must be told when a Fleet engineer provides a member of staff as a rider.

b) Engineering work or an emergency

A driver with the necessary knowledge must accompany the movement if an electric locomotive or an electric multiple unit which is in service needs to be hauled over a non-electrified line, or a line where the traction current is isolated and the driver of the hauling locomotive does not have the required knowledge of:

- the fire-fighting equipment, or
- other arrangements on the electric traction.

7.3 Coupling main reservoir pipes

**train
preparer,
driver**

You must make sure the main reservoir pipe is coupled between all hauling and dead traction units. This applies even if the train is operating on the single-pipe system.

7.4 Dead traction unit checks

On each dead traction unit being hauled, you must check that there are no repair book **i** entries or vehicle labels which indicate that the traction unit cannot be hauled safely.

driver

On each dead traction unit, you must check that the:

- automatic brake valves or brake controllers are in the correct position
- brake selector is set correctly
- brake-pipe pressure control unit (where fitted) is isolated
- battery isolating switch is open
- master switch, if provided, is off and master key is removed
- automatic warning system (AWS) is isolated
- driver's safety device (DSD) is isolated and this is noted in the repair book
- pantograph (where fitted) is lowered
- collector shoes (where fitted) are isolated and raised, or removed
- locomotives are correctly coupled
- brake instructions are carried out correctly
- parking brakes are released and the straight air or direct brake is in the off position.

Before the movement begins, you must finally check on each locomotive that the automatic brake is released.



Repair book includes any relevant fault records and defect systems on the traction unit for recording defects.

7.5 Defective automatic brake

driver

You must not haul a locomotive on which the automatic brake is totally inoperative within a formation of light locomotives.

However, the locomotive can be hauled in a freight train as a piped-only vehicle. See also section 8.3 b) of this module.

7.6 Partially defective automatic brake

driver

You must consider locomotives to have a partially defective brake if the number of brakes isolated results in a loss of brake force of no more than 25%.

A locomotive with a partially defective automatic brake can be hauled dead. However, when conveyed in a formation of light locomotives, you must not allow the speed of the train to exceed 50 mph.

7.7 Defective parking brake

rolling stock technician

If the parking brake is not working, you must:

- mark the traction unit PARKING BRAKE NOT OPERATING
- provide scotches
- record the details in the repair book.

7.8 Detaching dead traction units

driver

When a dead traction unit is detached, you must make sure that it is properly secured.

8

Hauling dead locomotives and multiple-units in a train

The people responsible: train preparer, driver

8.1 General requirements

You can allow a dead locomotive to be moved in any train if:

- the permitted load of the train is not exceeded
- the permitted speed of the train is not altered
- the required brake force for the class of train is available.

train
preparer,
driver

There must not be more than five locomotives unless Network Rail has granted route specific clearance for a larger number of locomotives.

8.2 Class 1, 2 and 5 trains and class 3 trains made up entirely of parcels vehicles or empty coaching stock (ECS)

a) Number of locomotives permitted

There must not be more than two hauling and dead locomotives in the train formation.

You do not need to carry out this instruction:

- if an electric locomotive in service is being hauled over a non-electrified line
- if an electric locomotive in service is being hauled over an electrified line and the traction current is isolated
- when specially authorised in other exceptional circumstances.

train
preparer,
driver

**train
preparer,
driver****b) Train formation**

When preparing the train, you must make sure that 'dead' locomotives are formed:

- immediately behind the hauling locomotive, or
- immediately inside the powering locomotive on a push-pull train, or
- at the rear of the train.

You must also make sure that:

- the automatic brake is operating fully on each dead locomotive
- the brake timings are compatible throughout the train, including all locomotives
- dead locomotives hauled in a train can be hauled at the train's maximum permitted speed.

The train must travel within the speed limits set out in section 2 of module TW3 *Preparation and movement of locomotive-hauled trains*.

8.3 Class 3, 4, 6, 7 and 8 freight trains

a) Train formation

When preparing the train, you must make sure that dead locomotives are formed:

- immediately behind the hauling locomotive, or
- at the extreme rear of the train.

A dead locomotive formed at the rear of a single-pipe air-brake train, must be fitted with an assistance to failed trains (AFT) cock or equivalent. For example it could be fitted with a dead engine cock.

Not more than one locomotive may be formed at the rear of the train.

Dead locomotives hauled on the rear of a train must be capable of being hauled at its maximum permitted speed.

b) The automatic brake on dead locomotives

If the dead locomotive has an operational automatic brake, you must make sure that it is used even when it is partially defective.

However, when formed at the extreme rear of the train, you must make sure that the automatic brake is fully operative.

If the dead locomotives have only a through pipe available, you must make sure that:

- not more than three locomotives are hauled, and
- the automatic brake is operating on the three vehicles behind the dead locomotives.

train
preparer,
driver

train
preparer,
driver

8.4 Hauling dead shunting locomotives in class 8 trains

train
preparer,
driver

You must only allow a class 08 or 09 shunting locomotive to be hauled dead by a class 08 or 09 locomotive at the lowest maximum speed of any of the locomotives **unless** the traction motors are demeshed. In this case, a class 08 can be hauled at 25 mph by any locomotive.

A class 09 locomotive may be hauled at up to 25 mph without being demeshed.

8.5 Hauling dead multiple-unit vehicles

train
preparer,
driver

Dead multiple-unit vehicles can be hauled as a class 1, 2 or 5 train or in a class 3, 4, 6, 7 or 8 freight train.

driver

When conveying multiple units fitted with triple valves, you must follow the appropriate Train Crew Manual braking instructions.

You must make sure dead multiple-unit vehicles in a freight train are formed as shown in GO/RM3056 *Working Manual for Rail Staff Freight Train Operations, section B Marshalling and composition*.

You must make sure that the driver's safety device (DSD) and final drive (where provided) are isolated on the vehicles to be hauled.

9

Starting a train

The people responsible: guard, person in charge, driver

9.1 Starting a train from a siding

Before you give the driver of a train leaving a siding the READY-TO-START signal, you must make sure it is safe to start the train.

guard

Before you give the driver of a DO train leaving a siding the READY-TO-START signal, you must make sure it is safe to start the train.

person in charge

The READY-TO-START signal is either:

- during the day - one arm held above the head
- at night time or in poor visibility - a green light held steadily above the head.

guard,
person in charge

If the driver cannot see the guards READY-TO-START signal, you must give the READY-TO-START signal to the driver.

person in charge

9.2 Looking out along a train

When starting away, you must look out to make sure everything is in order, if it is safe and possible to do so.

driver,
guard

9.3 READY-TO-START signal

The READY-TO-START signal tells you that:

- the instructions for working the automatic brake have been carried out
- when necessary, the continuity of the brake has been checked.

driver,
guard

9.4 Starting a train assisted in the rear

You must give the READY-TO-START signal to the driver of the assisting locomotive.

guard

10

During the journey

The people responsible: driver, guard, shunter, signaller

10.1 General

driver

Throughout the journey you must:

- observe all signals and speed restrictions which apply to your train
- be alert for handsignals. You may disregard a blue and white chequered flag which, although indicating that there is someone working on the line ahead, does not apply to you.

10.2 Using the warning horn

a) General

driver

You must not use the horn more than is necessary to give an effective warning or to make sure safe working takes place.

b) Warning tones to use

If two tones are provided, you must use the horn as shown below. If the horn has no soft/loud setting, you must use the setting provided.

Circumstances	Tones you must use
To give a warning to anyone on or near a running line	High and low tones - use the loud setting
When passing a whistle board between 0700 and 2300 hours	Low tone - use the loud setting
To give a warning when in a depot or siding	Low tone - use the soft setting
To sound a local or special code	High tone - use the loud setting

c) Sounding the horn as a warning

Anyone on or near the line

You must sound the horn to warn anyone who is on or near the line on which you are travelling.

driver

Give a series of short, urgent danger warnings to anyone who is on or dangerously near the line who does not:

- acknowledge your warning by raising one arm above the head, or
- appear to move clear out of the way of the train.

Whistle boards

You must sound the horn when passing a whistle board between 0700 and 2300. You must not sound the horn when passing a whistle board between 2300 and 0700 (except in an emergency or when anyone is seen on or near the line).

Train movements

You must sound the horn:

- when approaching or passing a location where shunting is taking place on a line immediately adjacent to the line you are on
- at any other time you consider necessary.

Tunnels

You must sound the horn before leaving a tunnel if you see someone on or near the line beyond the tunnel exit.

Other purposes

You must sound the horn on starting your train when:

- passing a signal at danger
- making a movement within a possession.

d) Wrong-direction movements

driver

When making a wrong-direction movement on a running line for which there is no signal provided, you must sound a series of short blasts at frequent intervals on the high (loud) tone of the horn.

(This is to warn anyone who might not be expecting an approaching wrong direction movement.)

10.3 Using the driver's reminder appliance (DRA)

driver

When a DRA is provided, you must only use it as follows:

a) When entering or leaving the driving cab

When you enter a driving cab before starting a journey, or when taking over the train from another driver, you must:

- make sure that the DRA is set
- reset it only when you have authority to start the train (including clearance of any starting signal which applies to the movement).

You must set the DRA when you leave the driving cab at the end of a journey or when another driver is to take over the train.

b) When stopping at a station platform where the starting signal is at danger

You must:

- set the DRA when stopping at a station platform where the starting signal is at danger
- only reset the DRA when the signal has cleared or when you have been given authority to pass the signal at danger.

You may set the DRA before your train stops at the platform.

c) When stopped at any other signal at danger

You must:

driver

- set the DRA when stopped at any other signal at danger
- only reset the DRA when the signal has cleared or when you have been given authority to pass the signal at danger.

d) When stopping or stopped at a station platform where no signal is provided

You must set the DRA after having:

- passed a signal displaying a single yellow aspect or a semaphore distant signal at caution
- been authorised to pass at danger the signal on the approach to the platform
- entered the platform under the authority of a position light signal or subsidiary signal.

You may set the DRA before your train stops at the platform.

You must only reset the DRA when you receive the READY-TO-START signal. (You must be aware that the signal ahead may be at danger.)

10.4 Driving a traction unit from the leading driving cab

driver

You must drive a locomotive (single or multiple), on-track machine, multiple unit or push/pull train from the leading driving cab, except when:

- making a shunting movement, as long as you carry out the instructions in section 6.1 of module SS2 *Shunting*
- the driving controls are defective, as long as you carry out the instructions shown in section 6.2 of module SS2 *Shunting*
- making a propelling movement as shown in section 13 of this module, as long as you carry out the instructions shown in section 6.3 of module SS2 *Shunting*.

10.5 Train requiring to stop in section

driver

You must stop the train at a signal, or the signal box, before reaching the section of line in which the train has to work, if you are working:

- an engineering train that is required to work on a running line which is not under possession
- a freight train that is required to make an unbooked call at an intermediate siding.

If it is possible to do so, you must also stop at a signal or signal box when working an officers' special train that is required to stop at a location that is not shown in the published notice.

driver

You must:

- agree with the signaller a time by which the section must be clear
- make sure your train has left the section by the agreed time.

a) Engineering train

If you are working an engineering train, you must keep in contact with the person in charge of the engineering activity involving the train to make sure the work is completed or suspended on time.

b) Level crossings

You must not stop the train within the controls of:

- an automatic half barrier (AHBC) level crossing, unless it is under local control
- an automatic barrier crossing locally monitored (ABCL) or an automatic open crossing locally monitored (AOCL) level crossing.

c) Wrong-direction movements

Except for the purpose of setting back through points worked from a ground frame, you must not make a wrong-direction movement for which there is no signal.

If the train is returning to the same end of the section at which it entered on a single or bi-directional line, you must ask the signaller for permission before the returning movement starts.

10.6 Class 325 electric multiple-unit trains

**driver,
signaller**

If you see a class 325 electric multiple-unit train pass with a blue cant-rail light illuminated near the roof, you do not need to take any action.

10.7 Single line working

Working in the wrong direction

driver

If your train has to travel over the single line in the wrong direction, you must tell the guard (if provided) that single line working is in operation.

guard

If the driver tells you that your train must travel over the single line in the wrong direction when single line working is in operation, you must consider the effect on:

- station working, releasing doors and passenger safety
- protection arrangements if you have to carry out the requirements of module M1 *Train stopped by train accident, fire or accidental division*.

10.8 Sidings and goods lines

driver

You must not allow a passenger train to enter a siding, a goods line or a goods loop unless:

- the arrangements have been published, or
- in an emergency, when authorised by the signaller.

The signaller must get authority from the local manager or signalbox supervisor before allowing a passenger train to enter a siding, goods line or goods loop unless it has been published.

10.9 Using the public address system

If your train operating company's instructions require you to make certain announcements using the public address system, you must not make those announcements when the train is moving if you may become distracted and put the safe operation of the train in danger.

driver

10.10 Passenger communication apparatus (PCA)

If the PCA is operated, you must, if possible, avoid stopping the train:

- on a viaduct
- in a tunnel
- in any other place where it might be difficult to deal with the emergency.

You can use the emergency brake override, if provided, to assist you in stopping at a suitable location.

If an emergency brake application is not automatically made when the warning alarm sounds on a train fitted with a PCA, you must:

- if possible, contact the person who has operated the apparatus
- ask the person why they have used the PCA
- take the necessary action
- if necessary, bring the train to a stand as soon as possible at a suitable location.

However, you must stop the train immediately if:

- you have reason to believe that the train may be in danger, or
- the apparatus is operated as the train is leaving a station.

driver

**guard,
driver of a
DO train**

If the train is stopped because the PCA has been operated, you must:

- find out the reason for the PCA being used and take appropriate action
- get the name and address of anyone misusing the equipment, and the name and address of any witnesses.

guard

You must ask the driver to tell the signaller about the circumstances.

driver

You must tell the signaller about the circumstances.

**guard,
driver of a
DO train**

You must reset the PCA before the train restarts.

10.11 Trains carrying sensitive traffic stopped at a signal at danger

driver

If you are driving a block train of dangerous goods or a mail or postal train and you are stopped at a signal at danger (except for relief or a booked station stop), you must:

- immediately contact the signaller by radio
- find out the reason for having been stopped.

signaller

If you cannot identify the reason for the signal being at danger, you must:

- treat the incident as being suspicious
- call the police immediately.

11

Stopping or stabling the train

The person responsible: driver

11.1 General

You must always stop your train with care.

driver

In deciding when to shut off power and apply the brake, you must consider:

- the weather
- the rail-head condition
- the gradient
- the length, weight and braking characteristics of your train.

11.2 Train shunted clear of the line or entering loop lines on other than track circuit block (TCB) lines

If the train has not already passed the controlling signal box, you must tell the signaller immediately that your train has arrived complete with tail lamp and is clear of the running line when your train has:

driver

- entered a loop or siding
- been shunted clear of the line on which it arrived.

11.3 Standing foul of any other line

When stopping your train on a reception line or siding, you must make sure that the train does not stand foul of any other line.

driver

11.4 Traction unit left unattended

driver

You must only leave your traction unit unattended when you are:

- handing it over to another competent person who is to take charge of it
- stabling the traction unit in either a depot, siding or other authorised place
- required to leave your traction unit unattended as instructed in the rules.

Each time you leave your traction unit unattended, you must make sure it is properly secured.

12

Permissive working

The person responsible: **driver**

12.1 Definition

Permissive working allows more than one train at a time to be on the same line in a:

- block section
- signal section
- dead-end platform line.

driver

12.2 Authority for permissive working

Permissive working is permitted where authorised in Table A of the *Sectional Appendix*. It can also be used in an emergency situation when the Network Rail area operations manager gives permission to the signaller to allow another train to enter an occupied section to use a station platform.

driver

However, a shunting movement can be allowed to enter a portion of line that is already occupied, even though permissive working is not authorised, providing this is for the purpose of:

- attaching vehicles
- detaching vehicles
- removing vehicles.

12.3 Proceeding towards the rear of another train on permissive-worked lines

When proceeding towards another train which is at a stand, you must:

driver

- approach at caution
- stop your train at least 2 metres short of the train in front.

12.4 Train following another train which is moving forward on a permissive-worked line

driver

When it is permitted to drive a train towards the rear of another train which is moving forward, you must:

- proceed at caution
- keep sufficient distance from the train in front to prevent your train colliding with that train in case it stops
- not pass a signal which has been cleared for the train in front until it has been replaced to danger and then cleared for your movement.

12.5 Setting-back movements where permissive working is authorised

driver, signaller awareness

You must not make any movement, other than for coupling or uncoupling once the train has come to a stand unless:

- a signal is cleared for the movement, or
- the movement is authorised by the signaller.

If the movement was made on the authority of the signaller, you must tell the signaller when the movement has been completed.

If making a setting back movement when coupling or uncoupling, you must make sure that the movement is not greater than a distance of 600 mm.

If it is necessary for the movement to be greater than this distance, you must get the authority of the signaller.

13 Propelling movements

The people responsible: signaller, driver, shunter

13.1 Definitions

A propelling movement applies when vehicles which are not capable of self-powered movement are pushed by a traction unit. The traction unit pushing is not in multiple with any of the propelled vehicles. The definition does not include push/pull sets.

13.2 When propelling movements can be made

You may allow a propelling movement only if it is:

- authorised in the circumstances described in this section
- absolutely necessary, and
- over the shortest possible distance.

signaller,
driver,
shunter

13.3 Authority for propelling

a) General

You may make a propelling movement in the following circumstances:

- At locations shown in the *Sectional Appendix*.
- Within the station limits of the same signal box.
- When making a shunting movement under the protection of signals on track circuit block lines and the movement is not required to proceed beyond more than one signal which can display a main aspect.
- When making a movement through points that are worked from a ground frame.
- When making a movement of an officers' special train in the right direction only.

signaller,
driver,
shunter

signaller,
driver,
shunter

b) Other movements

You may make a propelling movement after you have been authorised to do so as shown in this and other modules when:

- returning as a wrong-direction movement after taking a wrong route at a junction
- returning as a wrong-direction movement after overrunning a station
- making a movement in connection with single line working
- making a movement in connection with working to or from the point of obstruction
- working a breakdown train
- working an independent snow plough train, but only when the driver is accompanied by a competent person
- clearing a disabled train or portion of it from the section
- returning as a wrong-direction movement with the front portion of a divided train to the rear portion.

c) Engineering work

You may make a propelling movement when working an engineering train towards, on or from a line under possession if:

- this has been agreed at the pre-planning meeting and published
- in an emergency, the Network Rail area operations manager has given the PICOP authority.

This must not be done on a portion of line where propelling is not permitted in the *Sectional Appendix*.

Module T11 *Movements of engineering trains and on-track plant under T3 arrangements*, includes more information about propelling in possessions.

13.4 Before the movement starts

Before the movement starts, you must both reach a clear understanding about:

driver,
shunter

- the movement
- the limits of the movement
- how it will be controlled.

If the movement is to be made along a running line, you must:

shunter

- make sure the automatic brake is in use
- tell the signaller that the movement will be propelled, except when the movement is being made through points worked by a ground frame.

If the train or traction unit is fitted with TPWS, you must:

driver

- temporarily isolate the TPWS before the propelling movement starts
- reinstate the TPWS when the movement has been completed.

13.5 Controlling the movement

When vehicles are being propelled, the movement will be controlled as shown in section 4.8 of module SS2 *Shunting*, except when either of the following applies:

driver,
shunter

- A failed locomotive-hauled train is being assisted in rear, when the instructions shown in section 13.2 of module TW3 *Preparation and movement of locomotive-hauled trains* apply.
- A propelling movement is made within a T3 possession, when the instructions shown in section 6.1 and 6.3 of module T11 *Movement of engineering trains and on-track plant under T3 arrangements* apply.

13.6 During the movement

driver

Throughout the movement you must:

- observe all signals
- not pass any signal at danger except where specifically authorised
- not exceed 20 mph, except for an officers' special train, and
- sound the warning horn when approaching a station or level crossing.

14 Reducing speed in poor visibility

The person responsible: driver

You must reduce the speed of your train as you consider necessary, if you cannot see signals at the normal distance during:

- fog
- falling snow, or
- any other poor visibility.

You must not exceed 40 mph during fog or falling snow on a line where AWS is not provided on the line of route, or is not in use on the train.

driver

15

Unusual occurrences

The people responsible: driver, guard, signaller

15.1 Abnormal brake application

driver

If your train has been brought to a stand by a brake application which was not made by yourself, you must immediately check the in cab equipment indications, such as AWS or TPWS, to see if this has intervened.

If AWS or TPWS equipment has intervened, you must immediately contact the signaller. You must then carry out the instructions shown in module S3 *Train warning systems (AWS and TPWS) and reporting signalling failures and irregularities*.

If AWS or TPWS did not cause the brake application, you must find out if the brake was applied by the guard or by the passenger communication apparatus.

If neither of these caused the brake application, you must check if the train is complete with a tail lamp.

You must assume that your train has become divided and carry out the instructions shown in module M1 *Train stopped by train accident, fire or accidental division* or M2 *Train stopped by train failure* if:

- the tail lamp is missing
- the air brake pipe is open at the rear, or
- the vacuum brake pipe is hanging loose at the rear.

15.2 Working on the outside of the train

driver

You must ask the signaller to stop trains on any adjacent line which could put your personal safety in danger if:

- you need to work **i** on the outside of your train after your train has stopped on a running line because of a failure or other exceptional incident
- you need to check the working equipment is correctly positioned before or after an on-track machine (OTM) carries out work.

You must do this before you start work.

You must also ask the signaller to stop trains on any adjacent line if you have to walk alongside your train and this could put your personal safety in danger.

You may have to wait for a suitable time for the passage of trains to be stopped.

To arrange for trains to be stopped, you must:

- ask the signaller to stop the passage of trains on the lines concerned
- get an assurance from the signaller that this has been done
- reach a clear understanding about which lines have been blocked
- reach a clear understanding about which lines remain open to traffic
- ask the signaller to read back to you the entry made in the Train Register.

i

Work includes checks or examinations for defects or damage which must be carried out to meet the rules, and minor repairs to your train that your employer has authorised you to carry out. It also includes a visual check of the working equipment on an OTM to make sure it is correctly positioned.

driver

You must not start work or start walking until you are satisfied that trains will not pass on any adjacent line which could put your personal safety in danger.

When you have arranged for the adjacent line to be blocked, you may allow a competent member of your on-train personnel to check the working equipment on the OTM provided you are sure it is safe to do so.

If you are satisfied that the Train Register entry is correct, you must confirm you understand the arrangements and repeat to the signaller:

- your name and your employer
- the location where you are speaking from
- the time.

If you have stopped close to the signal box and it is possible to do so, you must go to the signal box and countersign the signaller's entry in the Train Register.

When you have finished work on the outside of the train or finished walking alongside the train, you must tell the signaller that the normal passage of trains can be resumed.

15.3 Proceeding after being stopped because of an unusual circumstance

**driver
signaller
awareness**

When your train has been stopped out of course because of an accident or other exceptional cause, you must not restart until:

- if the train is worked by a guard, you have received the guard's READY-TO-START signal
- if you are working a DO train, you have made sure it is safe to do so.

If you are working a passenger or empty coaching stock train that has been stopped at a platform at which it was not booked to stop, you must not restart until:

- if the train is worked by a guard and is not formed of power-operated door stock, you have received the guard's READY-TO-START signal
- if you are working a DO train, or any train formed of power-operated door stock, you have made sure it is safe to do so.

**driver
signaller
awareness**

You must only give the READY-TO-START signal to the driver after you have made sure it is safe to do so when:

- the train has been stopped by accident or other exceptional cause
- the train is a passenger or empty coaching stock train without power-operated doors stopped at a platform it was not booked to stop.

**guard
signaller
awareness**

If you are working a passenger or empty coaching stock train with power-operated doors which is stopped at a platform it is not booked to stop at, you must not release the doors.

If your train has stopped over unworked points, you must:

- only restart when it is safe to do so
- if necessary, arrange for the points to be secured before restarting.

**driver
signaller
awareness**

15.4 Train in distress

driver
signaller
awareness

If you cannot control the speed of your train or you need to alert anyone about some other emergency, you must:

- sound the 'train in distress' warning (which is a continuous series of long blasts on the high/loud tone of the horn)
- switch on the hazard warning indication (flashing headlights) if provided
- display a red light.

guard
signaller
awareness

If you become aware that the 'train in distress' warning is being sounded, you must:

- try to stop the train immediately, and
- contact the driver.

16

Examining the line

The person responsible: driver

16.1 How to carry out an examination of the line

If instructed by the signaller to examine the line, you must:

driver

- reach a clear understanding with the signaller about what is required
- if instructed to do so by the signaller, pass the signal at danger as described in the instructions in module S5 *Passing a signal at danger*
- proceed over the affected portion of the line at caution being prepared to stop short of any obstruction
- carry out any other instructions given to you by the signaller.

You must always be able to stop within the distance you can see to be clear on the line ahead.

If the affected portion of line is within a tunnel, you must proceed through the tunnel at a speed not exceeding 10 mph, and be prepared to stop short of any obstruction.

After passing over the affected portion of the line, you must tell the signaller:

- whether the line is clear or not, and
- any other information that the signaller needs to know.

16.2 Being accompanied by a competent person

driver

While examining the line, you must be accompanied by the guard or other competent person if immediately available:

- during darkness, fog or falling snow, or
- if you must pass through a tunnel.

However, if you receive confirmation that a person has fallen from a train, you must be accompanied by the guard or other competent person:

- during darkness, fog or falling snow, or
- if you must pass through a tunnel.

You need not be accompanied if the examination is in connection with:

- a track circuit which has failed to clear or otherwise shows occupied
- an overline bridge that has been struck by a road vehicle.

16.3 If the headlight has failed

driver

During darkness, fog or falling snow or if there is a tunnel in the section, you must not use a train to examine the line if the headlight has completely failed, unless a portable headlight is fitted.

16.4 AC Electrified overhead line equipment (OLE)

If you are examining the line in connection with OLE damage or irregularity, you must also carry out the instructions, in module AC3 AC *electrified lines: Working of trains*.

driver

16.5 Broken, distorted or damaged rails and broken fishplates

If there is a broken or defective rail on the line on which your train is to travel, the signaller will have made arrangements for the rail to be examined.

driver

The signaller will then:

- tell you what is happening, and
- the location of the broken rail.

When you are told to proceed, you must do so at the speed the signaller tells you.



Where there are DC overhead electrified lines on Network Rail infrastructure, see the local instructions.

16.6 Bridge strikes

driver

If a bridge is reported as having been struck by a road vehicle on the line on which your train is to travel, the signaller will make arrangements for the bridge to be examined.

The signaller will tell you:

- what is happening, and
- the exact location of the bridge.

When you are told to proceed, you must do so at the speed the signaller tells you. You must not increase speed until the whole of your train has passed beyond the bridge concerned.

If it is an overline bridge that has been struck, the signaller may ask you to check the bridge before passing under it. In this case you must:

- stop your train before passing under the bridge
- check for any obvious damage including debris on the line ahead of your train.

If there is no obvious damage or debris, you may pass under the bridge at a speed not exceeding 5 mph.

17

Rail-head adhesion

The people responsible: driver, signaller, operations controller

17.1 Controlling the train

You must control the train to take account of:

driver

- the conditions, and
- locations of known low rail adhesion as listed in the *Sectional Appendix*.

17.2 Experiencing exceptional rail-head conditions

You must tell the signaller immediately if you experience either of the following:

driver,
signaller

Low rail adhesion: Likely to cause difficulties in stopping at a location **not** listed in the *Sectional Appendix*.

Exceptionally poor rail adhesion: Likely to cause more than anticipated difficulties in stopping at a location listed in the *Sectional Appendix*.

If you are told about low or exceptionally poor rail-head adhesion conditions, you must tell Operations Control.

signaller

signaller You must take the appropriate action as listed in the table below:

Location where conditions apply	Action to be taken
Approach to a stop signal	Arrange for the driver of each approaching train to be told of the circumstances unless showing a proceed aspect
Manned level crossing within the overlap of the signal	Close the crossing to road traffic before each train approaches
AHBC level crossing	Select the non-stopping mode (where provided)
Approach to a platform	Arrange for the driver of each train booked to call to be told about the circumstances
Dead-end platform	Arrange, if possible, for the platform to be taken out of use

**operations
controller
signaller
awareness**

If you are told by the signaller about low or exceptionally poor rail-head adhesion conditions, you must arrange for the section of line to be inspected to check whether the rail-head is affected by:

- deposits of oil, grease or similar substances
- a build-up of leaves, or
- some other exceptional feature.

When you are told the outcome of the inspection, you must tell the signaller.

17.3 Arranging a controlled test stop

If Operations Control tell you that nothing unusual has been found, you must arrange for a train to make a controlled test stop at the location concerned.

signaller

In the case of a dead-end platform, you must arrange for the rail-head to be treated before arranging for a test stop to be made.

If possible to do so, you must arrange for the test stop to be performed by a similar type of train to that which originally reported the conditions.

Before a controlled test stop is made, you must:

- arrange for the signal, where provided, to be cleared
- where permissive working is authorised, make sure the platform line is clear.

When the signaller tells you to make a controlled test stop, you must brake the train using the technique that you would normally use for the weather and rail adhesion conditions at the location rather than that used for the exceptional, rail-head adhesion conditions.

driver

Immediately following the controlled test stop, you must tell the signaller:

- the results of the test, and
- whether the rail-head adhesion conditions should still be considered as exceptional.

If the conditions are reported as being no longer exceptional, you can resume normal working.

signaller

17.4 Arranging rail-head treatment

operations
controller
signaller
awareness

You must arrange for rail-head improvement treatment if:

- the visual inspection reveals a condition likely to lead to low rail-head adhesion
- the driver who made the controlled test stop reports the conditions as still being exceptionally poor.

signaller

Until you are told that drivers are being notified by other means, you must continue to advise drivers.

You must not resume normal working until:

- a further controlled test stop has been attempted as in section 17.3, and
- the conditions are reported as being no longer exceptionally poor.

17.5 Serious wheel slip

driver

You must tell the signaller the location where serious or prolonged wheel slip is experienced. However, if the wheel slip is severe or you suspect damage to the rail, you must stop the train specially and tell the signaller immediately.

signaller

You must:

- arrange for the affected portion of line to be inspected, and
- caution following trains if it is necessary.

17.6 Sandite trains

If you are working a sandite train, you must obey the meaning of the following boards:

driver



Advance warning
of application site



Start applying
sandite



Stop applying
sandite

If there are no sandite marker boards, you must apply sandite according to any instructions given to you.

18

Working trains during snow conditions

The person responsible: driver

18.1 When these instructions apply

driver

You must carry out the following instructions when snow is falling, or fallen snow is being disturbed by the passage of trains.

18.2 Running brake tests during snow conditions

driver

You must make a full service application of the automatic brake every three to five minutes and make sure that the speed of your train is reduced by at least 10 mph as a result of the application.

If driving a locomotive-hauled train, you can extend this interval when:

- the train is climbing a steep-rising gradient, and
- the train might be brought to a complete stand as a result of using the brake.

18.3 Trains normally permitted to run at more than 100 mph

If you are working a train permitted to run at more than 100 mph, you must make sure that the speed of the train:

driver

- does not exceed 100 mph, or
- is restricted to 10 mph below the permitted speed for the train concerned over each portion of the line, **i** whichever is lower. However, you do not need to reduce the speed below 50 mph.

18.4 When a class 325 electric multiple-unit train is being hauled by a locomotive

If you are working a train conveying class 325 electric multiple-unit stock in locomotive-hauled mode, you must make sure that the speed of the train is restricted to 10 mph below the permissible speed for the train over each portion of the line. **i** However, you do not need to reduce the speed below 50 mph.

driver



For example, if the train is travelling over a portion of line where the permissible speed for that type of train is 75 mph, you must restrict the speed of the train to 65 mph.

19

Exploding detonators

The person responsible: driver

19.1 At a signal box or when a red handsignal is shown

driver

If your train explodes a detonator or detonators at a signal box or when a red hand danger signal is being shown, you must:

- stop your train as quickly as possible
- not proceed until given permission to do so.

19.2 Other situations

driver

If your train explodes a detonator in any other situation other than described in 19.1, you must:

- stop your train as quickly as possible
- proceed at extreme caution towards the obstruction, or any signal or handsignal instructing you on the action you must take.

20

When trains could be put in danger

The people responsible: driver, guard

20.1 Dangerous obstructions

This instruction applies if you see:

driver

- an obstruction on the line which could cause danger to other trains
- a cow, bull or other large animal within the boundary fence, even if it is not an immediate danger to trains
- any other animal on or near the line which might be a danger to trains.

You must:

- warn the driver of any approaching train by carrying out the instructions in section 20.3 of this module.
- place a track-circuit operating clip and three detonators 20 metres (approximately 20 yards) apart on each affected line, at least 2 km ($1\frac{1}{4}$ miles) from the obstruction
- tell the signaller immediately by using:
 - the cab radio emergency call procedure
 - any available telephone
 - any radio system.

20.2 When your train is put in danger

**driver,
guard**

If you become aware of something which could put the safety of your train in danger, you must stop your train as soon as possible.

You must, if possible, avoid stopping the train:

- on a viaduct
- in a tunnel
- in any other place where it might be difficult to deal with the emergency.

guard

You must tell the driver why you have stopped the train.

20.3 When another train is put in danger

driver

If you see something wrong with another train, you must warn the driver of the other train if possible by:

- sounding the horn
- showing a red light to the driver of the other train
- switching on the hazard warning indication, if provided.

guard

If you see something wrong which could put another train in danger, you must alert the driver of the other train if possible by the most appropriate means.

20.4 When a following train is put in danger

If you see an obstruction or something wrong which could put a following train in danger, you must:

- stop your train immediately at the next stop signal
- not proceed until you have told the signaller about the circumstances.

driver

20.5 When trains will not be put in immediate danger

If you see something wrong which will not put trains in immediate danger, you must tell the signaller at the first available opportunity.

driver

21

Protecting personnel when servicing and repairing vehicles

The people responsible: driver, guard, shunter, train preparer

21.1 Before servicing or repairs are carried out

driver,
guard,
shunter
awareness

Before servicing or repairs are carried out on vehicles, the designated person responsible for protection (DP) will:

- tell the person in charge of the line or siding when work is to be carried out
- tell all present what will be happening
- arrange for the protection instructions shown in this section to be carried out.

21.2 Providing the correct protection

driver,
guard,
shunter
awareness

The DP will make sure the correct protection is displayed on the vehicles as follows:

- A NOT TO BE MOVED board or red flag during daylight.
- A red light (steady or flashing) during darkness or poor visibility.

21.3 Displaying the protection in the correct position

driver,
guard,
shunter
awareness

The DP will:

- display the protection at the end from which the train is being driven, or is to be driven, and
- at the other end if vehicles might be shunted from that end on to those on which the work will take place.

If the driver is not present, the DP will display the protection at both ends if the train can be driven from both ends.

When the vehicles are in a platform

When the vehicles are in a platform, the DP will also make sure the protection:

- is displayed on the platform side
- can be clearly seen along the whole length of the platform.

driver,
guard,
shunter
awareness

When the vehicles are next to a running line

When the vehicles are next to a running line, the DP will make sure the protection is displayed on the side of the vehicle which is furthest from the running line.

21.4 If the automatic brake on the vehicle cannot be relied on

If the automatic brake on the vehicle cannot be relied on to operate, and work is to be done underneath it, the DP will also arrange to secure the vehicle with scotches.

If there are other vehicles on the same line, the DP will secure one or two vehicles on either side by applying the handbrakes or scotches.

driver,
guard,
shunter
awareness

21.5 Additional precautions before heating or air conditioning is carried out

The DP will provide the protection arrangements (whichever are appropriate) as shown in section 21.2 of this module.

The person working on the vehicle will also display a notice stating WARNING - HEATING/AIR CONDITIONING IN PROGRESS if:

- a shore supply is connected, or
- a locomotive is to be attached for pre-heating or air conditioning.

The notice will be displayed on the vehicle at the opposite end to that to which the shore supply or locomotive is to be attached.

driver,
shunter,
train preparer
awareness

21.6 If work is to be carried out on train heating or air-conditioning equipment

driver,
shunter,
train preparer
awareness

Before an authorised rolling stock technician carries out work on the train heating or air-conditioning equipment, that person will make sure:

- any electrical circuits are made dead
- the train heating connections are disconnected at both ends of the vehicle
- a warning notice CAUTION - DO NOT CONNECT POWER VOLTAGE SUPPLY is displayed at both ends.



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