

Defective OTM equipment - list of OTM equipment and action to be taken	Ref:	NR/L3/NSC/313/SP-2.05/AA
	Issue:	1
	Date:	05 December 2015
	Compliance date:	01 April 2016

A.1

NOTE The list below details on-OTM equipment which, when defective, directly affects the movement of an OTM.

If a defect affects any of the following pieces of on-OTM equipment, the OTM driver shall stop the OTM immediately. The OTM driver shall report the circumstances directly to the signaller:

- a) automatic Brake System;
- b) Automatic Warning System (AWS);
- c) axle box;
- d) driving cab window – broken or obscured;
- e) Drivers Vigilance Device (DVD);
- f) fire detection system;
- g) fixed radio equipment;
- h) headlights or tail lights;
- i) lifeguards;
- j) speedometer;
- k) Track Circuit Actuator (TCA);
- l) Traction interlock Switch (TIS);
- m) Train protection and Warning System (TPWS);
- n) vehicles with locked wheels/wheel flats/shifted tyres/dragging brakes; and
- o) warning horn – complete failure.

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NOTE 1 The list below details on-OTM equipment which, when defective, do not directly affect the movement of an OTM.

NOTE 2 Defects in these pieces of on-OTM equipment do not need to be reported to the signaller.

The OTM driver shall report defects affecting the following pieces of on-OTM equipment directly to Network Rail NSC 24/7 at the first convenient opportunity:

- a) cab heater and cooling equipment;
- b) On-train DATA recorder (OTDR); and
- c) warning horn – partial failure.

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.2 Table of on-OTM equipment and action to be taken

Defective system	Entering transit From a Maintenance Depot or HOOB	Entering transit From other than a Maintenance Depot or HOOB	Failure in transit	Max speed	Out of transit	Other comments
Automatic Brake System	The automatic brake shall be fully operational on the OTM.	<p>A minimum ratio of 1:5 permitted to be isolated</p> <p>Front and rear vehicles shall not be isolated (Except where vehicle is fitted with rigid bar coupling)</p> <p>Reduce speed by 10mph below the maximum permitted speed of the OTM over the line concerned</p> <p>(Speed need not be less than 35mph)</p>	Driver to report direct to signaler	Reduce speed by 10mph below the maximum permitted speed of the OTM over the line concerned (Speed need not be less than 35mph)	The OTM may continue in transit until such suitable time/location where it can be replaced or repaired.	
	N/A	N/A	<p>Brake no longer operating on the first vehicle.</p> <p>If the brake has been isolated on the first vehicle, arrange for the OTM to be assisted in the front.</p> <p>You do not need to do this if one of the following applies: -</p> <p>a) The line ahead is level or rising, make</p>		<p>The OTM shall proceed only as far as the Next Available Location.</p> <p>Exception If an OTM has 5 vehicles and Leading vehicle has a rigid bar coupling.</p>	<p>NOTE Observe instructions of the sectional appendix frontispiece.</p> <p>On sections of line listed in this section a train formed of a 2 car multiple unit shall not be worked</p>

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		<p>the movement at reduced speed to keep full control of the OTM.</p> <p>(Irrespective of coupling types)</p> <p>b) The first vehicle is fitted with a parking brake that can be applied in an emergency, in which case the movement shall not exceed 5mph.</p> <p>(This is to be applied when the leading vehicle is not coupled to the next vehicle by a solid bar coupler and the gradient is falling)</p> <p>c) The leading vehicle is coupled by a rigid bar coupling to the next vehicle on which the brake is operating. Make the movement at reduced speed to keep full control of the OTM. (Unless 1:5 ratio maintained – See first table above</p>	<p>The OTM shall proceed only as far as the Next Available Location.</p> <p>Exception If an OTM has 5 vehicles and Leading vehicle has a rigid bar coupling.</p>	<p>with brakes isolated on 1 vehicle or a 3 car multiple unit worked with the brake isolated on 2 vehicles. An assisting unit shall be attached so that the proportion of vehicles does not exceed 1 in 4 if 2x2 car units are involved or 2x5 if a 3 car and 2 car are involved.</p> <p>The same proportion of vehicles shall be applied to longer OTM formations, e.g. 3x2 car not more than 2 vehicles to be isolated</p>
		<p>Brake no longer operating on the last vehicle.</p> <p>If the brake has been isolated on the last vehicle, arrange for the OTM to be assisted in the rear.</p> <p>You do not need to do this if one of the following applies: -</p> <p>a) The line ahead is level or falling, make the movement at reduced speed to keep full control of the OTM.</p> <p>(This is irrespective of coupling types)</p> <p>b) The last vehicle is fitted with a parking brake that can be applied in an emergency, in which case the movement</p>		

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			shall not exceed 5mph . (This is to be applied when the trailing vehicle is not coupled to the next vehicle by a solid bar coupler and the gradient is rising) c) The trailing vehicle is coupled by a rigid bar coupling to the next vehicle on which the brake is operating. Make the movement at reduced speed to keep full control of the OTM . (Unless 1:5 ratio maintained – See first table above.			
			Brake isolation no longer conforms to 1:5 ratio, front and last vehicles working correctly	Continue at such speed that you can maintain full control of the OTM		
			Brake continuity is no longer available	Proceed at no more than 5mph		
Automatic Warning System (AWS)	A traction unit shall not be permitted to enter transit if the AWS equipment is isolated or the seal is broken on an AWS isolating handle, in any driving cab which	A traction unit shall not be permitted to enter transit if the AWS equipment is isolated or the seal is broken on an AWS isolating handle, in any	The Driver to report the circumstances to the Signaller immediately. The Driver shall not to move OTM until instructed to do so.	40 mph or lower line speed. Fog or falling snow 40mph**	At Next Available Location unless repaired or reformed.	Full details shall be passed to relevant Network Rail Route Control including results of any tests on Depot. Isolation of AWS will

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	is required to be used.	driving cab which will be used.	The OTM may proceed at a speed not exceeding 40mph as far as the next available location or maintenance facility.			<p>automatically isolate TPWS</p> <p>RT3185 shall be completed by driver where required</p> <p>**Network Rail TU do not supply competent persons as permitted by TW5 regulations</p>
Axle box	A traction unit or vehicle shall not be permitted to enter transit with a hot axle box.		1. The Driver shall stop the OTM as quickly as possible.			
			2. Driver shall report the circumstances to the Signaller immediately.			
			3. The Driver shall examine the axle box and decide if the OTM can proceed, if in any doubt the authority of a Rolling Stock Technician shall obtained.			
			4. If a fault is found: The movement shall	10 Mph (5 Mph over points and	Next Available Location	

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		not exceed 10mph (5 mph over points and crossings) The OTM shall proceed only as far as the next available location.	Crossings)		
		If No fault is found: • the OTM may continue at line speed.	Line speed		A further examination shall be carried out within 50 miles – unless the OTM passes over an operational hot axle box detector without activating the alarm.
		6. If the OTM activates a second hot axle box detector then the maximum speed at which it may proceed is 20mph. 4 applies if it is obvious it is hot	20 Mph	Next Available Location	
		7. If there is a delay of more than 10 minutes in carrying out the examination after the OTM has			