

# Anti-lock Braking System (ABS) Malfunction Indicator Lamps – Roadside Checks

## Briefing note

The Driver and Vehicle Standards Agency (DVSA) has implemented changes to roadside enforcement policy in light of Logistics UK proposals to downgrade its response to situations where a yellow ABS Malfunction Indicator Lamp comes on during a vehicle journey. The revised enforcement policy introduces a less severe sanction level where there is evidence available to a DVSA examiner of a yellow ABS Malfunction Indicator Lamp illuminating during a journey, in which case the action at roadside checks is to issue an inspection notice, rather than a prohibition. This action is in line with Construction and Use Regulations which permit a vehicle to continue with a journey or be taken to a place of repair if the ABS fault occurs during the journey, at the start of which the system was functioning correctly.

This briefing note outlines recommended procedures for operators and drivers to follow should ABS Malfunction Indicator Lamps become illuminated during a journey.

## Background

In 1992 the Road Vehicles (Construction and Use) Regulations 1986 were amended by Statutory Instrument 1992 No 352 so that in certain circumstances it is permissible to drive a vehicle with a fault in its anti-lock braking system. Regulations 18 (1A) and (1B) of the Construction and Use Regulations permits the vehicle to complete its journey if the fault arose after the journey began, or to drive the vehicle to a place where the fault is to be repaired. However DVSA enforcement officers have traditionally issued a prohibition notice for any ABS related defects at roadside checks, even if the fault occurred during the journey.

Logistics UK challenged DVSA on this action and believed that in certain circumstances operators were being unfairly issued with prohibitions and associated Operator Compliance Risk Score (OCRS) points for ABS Malfunction Indicator Lamp faults which become illuminated during a journey, at the start of which the ABS system was functioning correctly. This was not in line with the letter and spirit of the Road Vehicles (Construction and Use) Regulations 1986, Regulations 18 (1A) and (1B).

Logistics UK negotiated strongly with the Department for Transport (DfT) and DVSA, who agreed to downgrade enforcement sanction policy where there is evidence available to a DVSA examiner of a yellow ABS Malfunction Indicator Lamp illuminating during a journey. In this case the action is to issue an inspection notice, rather than a prohibition.

## Revised DVSA policy

Following Logistics UK lobbying, DVSA has issued a memo to all enforcement staff outlining a revised procedure when dealing with ABS Malfunction Indicator Lamp faults during roadside checks, in order to apply a consistent approach in line with construction and use requirements. The procedure now involves DVSA examiners seeking evidence from the driver that the defect occurred en-route. If drivers have evidence at the time of examination indicating that the defect occurred en-route (and that appropriate action has been taken and documented by the driver) then DVSA will downgrade to issuing an inspection notice under these circumstances.

The provision in the Construction and Use Regulations permitting a vehicle with a fault in its anti-lock braking system to complete its journey if the fault arose after the journey began, or to drive the vehicle to a place where the fault is to be repaired, is specific to ABS and not Electronic Braking System (EBS).

### **The revised DVSA policy does not apply to EBS (Electronic Braking System) Malfunction Indicator Lamps.**

For roadside enforcement purposes, DVSA distinguishes between ABS and EBS, and the sanction level applied is different for the two systems; being more severe in cases where EBS Malfunction Indicator Lamps are inoperative or indicating the existence of a fault. The revised policy regarding ABS does not affect the sanction policy for EBS, and therefore vehicles with defective EBS systems will continue to receive prohibitions for EBS Malfunction Indicator Lamp defects. Full details of prohibition action can be

found in DVSA's Categorisation of Defects publication which can be downloaded free of charge at [www.gov.uk/government/publications/categorisation-of-defects](http://www.gov.uk/government/publications/categorisation-of-defects)

## Electronic Braking Systems (EBS)

Many modern vehicles and trailers are fitted with Electronic Braking Systems (EBS) as standard. These systems can simultaneously fulfil the operation of an anti-lock system and a load sensing system with superior reaction time. If both vehicle and trailer are fitted with EBS, the two systems can communicate via a data link and offer the potential of improved tractor/trailer compatibility and in the case of vehicles can also provide ASR (Anti-Slip Reduction).

Trailers fitted with EBS are typically identifiable by the presence of a seven pin ISO 7638 socket on the trailer, and possibly a manufacturer's headboard plate. All ABS and EBS vehicles and trailers approved to UN or EC requirements must display a warning lamp to indicate to the driver the existence of a fault, and this can be in the form of a warning lamp on the vehicle which can either be an ABS or EBS (or both) warning lamp.

## X-marked prohibitions

DVSA examiners have the mechanism to apply an 'X' marking to a prohibition which indicates that it is likely that the defect has arisen during the journey and is not maintenance related. In the same way that 'S' marked prohibitions are deemed to be more serious by DVSA and Traffic Commissioners and related to maintenance standards, a prohibition which is marked 'X' is deemed to be of a less serious nature and mitigates to some degree against the prohibition action. DVSA examiners would need to be satisfied from evidence provided at the time of examination that the defect occurred during the journey in order to apply the 'X' marking to the prohibition.

In order to mitigate against prohibitions issued for EBS Malfunction Indicator Lamp defects, operators and drivers could adopt a similar procedure, as outlined in this briefing note for ABS Malfunction Indicator Lamps, to provide the evidence to a DVSA examiner that the defect occurred during the journey, which could result in the prohibition being 'X' marked.

## ABS Malfunction Indicator Lamps

All ABS equipped vehicles and trailers approved to UN or EC requirements must display a warning light to indicate to the driver the existence of a fault in the system. This light is required to illuminate when the system is energised and will extinguish on satisfactory completion of the static test. The ABS Malfunction Indicator Lamp sequence can be quite complicated and advances in technology and legislation have resulted in most lamps now being displayed as part of the vehicle dashboard warning lamp information system for both vehicle and trailer.

In line with braking legislation, vehicle manufacturers have adopted ABS Malfunction Indicator Lamp systems showing either a red or yellow lamp, and the general advice from most vehicle manufacturers differentiates between red and yellow in terms of advice or instructions to drivers. From a UNECE Regulation brake type approval aspect, a yellow lamp can be displayed to alert the driver that there is a defect in the system and the prescribed minimum brake performance can still be met. However, if the

prescribed requirements cannot be met, then a red lamp must be displayed.

Typical advice and instruction from vehicle manufacturers provided to drivers regarding ABS Malfunction Indicator Lamps is as follows.

- **Red lamp** – there is a serious fault with the system and the vehicle requires immediate attention/rectification and should not be driven any further
- **Yellow lamp** – there is a less serious fault with the system, and the vehicle may continue to be driven with caution, and requires attention/rectification as soon as possible

## Advice for operators and drivers

Logistics UK has produced a flowchart/protocol which could be followed to assist operators in taking the appropriate action following the illumination of an ABS Malfunction Indicator lamp during a journey. If the procedure is followed there should be sufficient evidence for DVSA examiners to confirm that the driver and operator have taken the appropriate action and the enforcement action should be downgraded to an inspection notice in these circumstances. The guidance is summarised as follows.

### Vehicle pre-use check

The ABS Malfunction Indicator Lamp operation should be included as part of the driver's pre-use check, and any vehicle which is found to have an ABS Malfunction Indicator lamp illuminated (indicating a fault with the system) should not be put into service until the defect is rectified. This applies to any ABS Malfunction Indicator Lamp found to be illuminated during the check regardless of the colour.

### ABS failure warning lamps illuminated during a journey

#### **Red ABS Malfunction Indicator Lamp**

If any red ABS Malfunction Indicator Lamp illuminates, the driver should bring the vehicle to a halt in a safe manner and the vehicle should not be driven further until the fault is rectified. If the ABS Malfunction Indicator Lamp is yellow but a secondary red warning light is illuminated (such as one indicating 'Stop!' etc), then this should also be treated as RED.

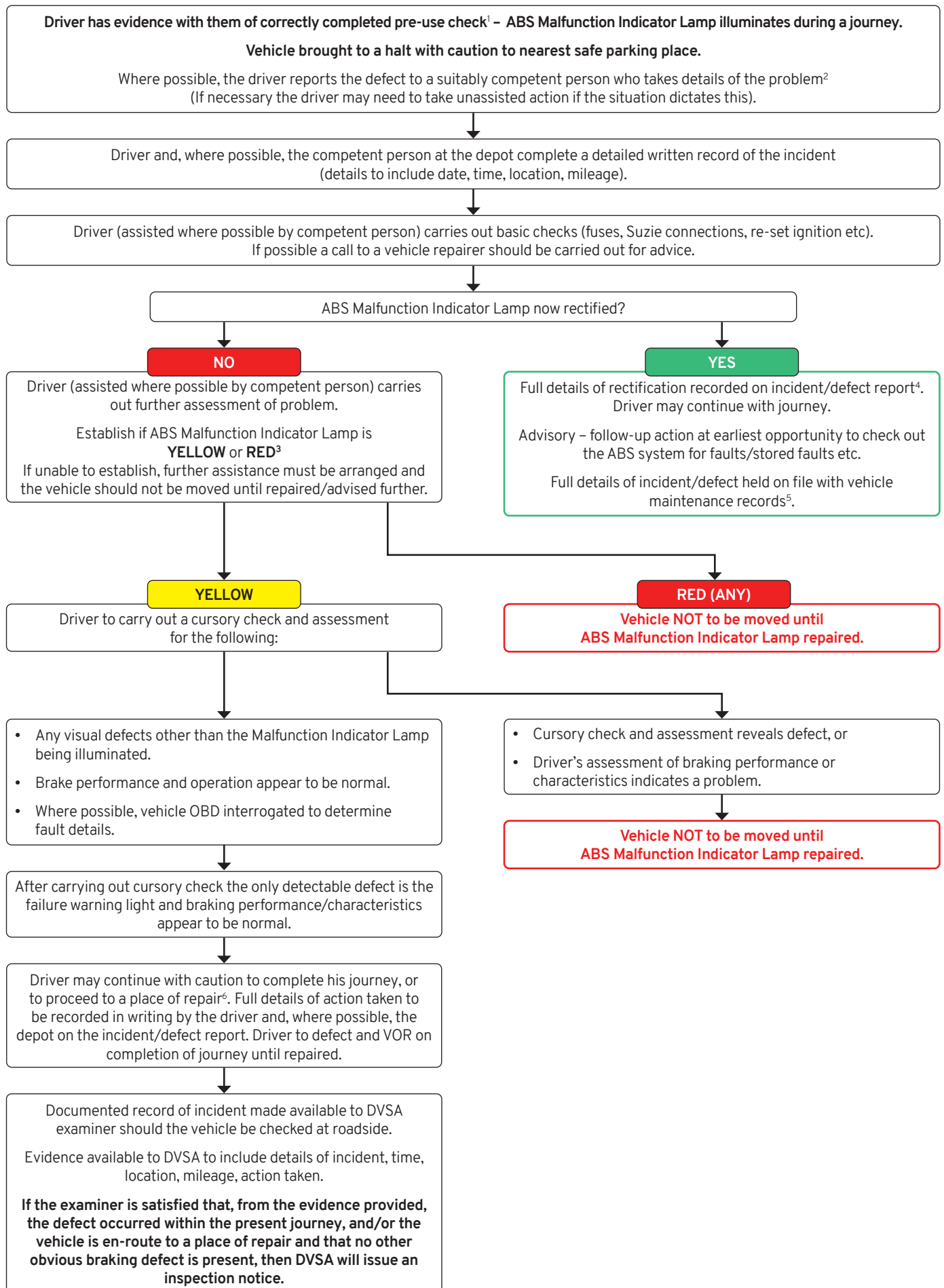
#### **Yellow ABS Malfunction Indicator Lamp**

If a yellow ABS Malfunction Indicator Lamp illuminates during a journey, operators and drivers should take appropriate action to investigate the problem, record the action taken (as detailed in the flowchart) and make this available to a DVSA examiner if the vehicle is subjected to a roadside check. If, following investigation, the only detectable defect is the Malfunction Indicator Lamp, and the braking system and performance appear to be normal, then the driver may continue with caution to complete the journey, or to take to a place of repair.

#### **Follow-up action**

As a follow-up to any incident involving an ABS fault, action should be taken at the earliest opportunity to check out the ABS system for further/stored faults etc. Full details of incident/defect should be held on file with vehicle maintenance records.

# ABS Protocol flowchart



#### ABS Protocol flowchart notes

- 1 Pre-use check sheet to be correctly completed indicating correctly functioning braking system (the check sheet may specify 'ABS'). The check sheet may be electronic.
- 2 A suitably competent person is a requirement as per the DVSA Guide To Maintaining Roadworthiness which states that all driver defect reports must be given to a responsible person with sufficient authority to ensure that appropriate action is taken, including the authority to take the vehicle out of service. There is a need to take into account lone drivers with no depot contact at the time of the incident, such as night drivers, owner drivers etc. Under these circumstances the driver will need to deal with the incident unassisted.
- 3 If the ABS Malfunction Indicator Lamp is yellow but a secondary red (Stop!) warning light is illuminated, then this should be treated as RED.
- 4 The details recorded on the written report of incident on the defect report sheet should include the following and be available at the time of inspection:
  - Date.
  - Time.
  - Location.
  - Mileage at the time of the incident.
  - Details of action taken/rectification. Action taken must contain information such as 'driver checked, no visible defect evident' or 'OBD interrogation carried out' and a note that the brake performance and operation appears to be normal.
  - Incident number to be recorded if possible.
- 5 As a follow-up to any incident involving an ABS warning lamp fault, action should be taken at the earliest opportunity to check out the ABS system for further/stored faults etc. Full details of incident/defect to be held on file with vehicle maintenance records.
- 6 DfT and DVSA have agreed that 'journey' is meant as the current journey which must have been started within the day. For practical purposes a day is defined as any 24 hour period that begins when a driver starts work after a daily or weekly rest. It is not a rolling period.