

## **O5** GENERAL VEHICLE ISSUES

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### **O5.1** GENERAL

**O5.1.1** Production vehicles are rarely suited to site work in their standard form, so before purchasing a vehicle, consideration should be given to the model's suitability for modifications and its ability to carry the necessary equipment. The ease with which an operator can move from the off side seat to the near side door should also be considered.

**O5.1.2** The choice of vehicle type, engine size and gearbox should reflect the acceleration and manoeuvrability required of that vehicle during normal working conditions.

**O5.1.3** All vehicles and equipment shall be checked for correct operation before work commences. All checks should be documented and all faults reported prior to work commencing. If necessary, the vehicle or equipment should be taken out of service until faults are rectified. Basic vehicle checks should always include fuel, lights, oil, water, electrics and tyres.

### **O5.2** CONSPICUITY

**O5.2.1** Any vehicle stopping on the highway for works purposes or inspections should be of a conspicuous colour (e.g. yellow or white). A non-reflective yellow colour, No. 355 (lemon) to Table 1 of BS 381C: 1996 "Specification for colours for identification, coding and special purposes" is recommended.

**O5.2.2** Subject to the specific requirements of the following sections, any works vehicles that are used to protect the workforce or form part of the signing of the works should be of conspicuous colour and appropriate marking. This is particularly important for that part of the vehicle visible to drivers and prescribed as part of any sign mounted on the vehicle.

**O5.2.3** In addition, on high-speed roads, all vehicles stopping on the highway for works purposes or inspections shall be equipped with high visibility rear markings. High visibility rear markings should comprise either:

- a) signing to diagram 7403, or
- b) the alternative light arrow sign in accordance with [Section O10.8](#), or
- c) chevron markings comprising alternate strips of fluorescent orange-red retroreflective material and fluorescent yellow non-retroreflective material, of not less than 150mm width each, inclined at 45-60° to the horizontal and pointing upwards, or
- d) a solid block of fluorescent orange-red retroreflective material.

The markings described in (c) and (d) above should cover as much of the rear-facing portion of the vehicle as possible without obscuring windows, vehicle lighting or registration plates.

**O5.2.4** Red retroreflective tape shall also be applied to all rear facing edges of open doors, guardrails and equipment lockers.

**O5.2.5** Where rear facing high visibility markings may be obscured by any device mounted on the vehicle (e.g. lorry-mounted crash cushion (LMCC) or cone laying adaptation), at any time that the vehicle is stopped on a high-speed road, additional markings complying with paragraph [O5.2.3](#) (c) or (d) shall be applied to any face of the device which is displayed to the rear and other road users.

**O5.2.6** Works vehicles should be kept clean to maintain conspicuity.

**05.2.7** Motor vehicles with a maximum gross weight exceeding 7.5 tonnes and trailers with a maximum gross weight exceeding 3.5 tonnes must be fitted with rear markings in accordance with the Lighting Regulations.

**05.2.8** Maintenance vehicles shall be identified by displaying to the rear the sign to diagram 7404 "HIGHWAY MAINTENANCE". The sign to diagram 7404 variant "MOTORWAY MAINTENANCE" may be used instead when working on motorways only.

**05.2.9** Other plant and equipment should be painted in a conspicuous colour.

### **05.3 BEACONS**

**05.3.1** Without prejudice to the specific requirements of the following sections, any vehicle stopping on the highway for works purposes or inspections shall be equipped with either a roof-mounted amber warning light bar (comprising at least two independent light sources) or two independent roof-mounted amber warning beacons, visible through 360°.

**05.3.2** Warning beacons must comply with the requirements of the Road Vehicle Lighting Regulations and should also comply with the United Nations Economic Commission for Europe (UNECE) Regulation 65 on Special Warning Lamps.

**05.3.3** If the main beacon is likely to be obscured from the rear by parts of the vehicle or any equipment carried on the vehicle, additional beacons should be fitted toward the rear of the vehicle where they will remain visible.

**05.3.4** The beacons shall be in use when entering, leaving or moving within the site, when travelling in traffic at less than the general traffic speed, and when stationary on the hard shoulder.

**05.3.5** When stationary within the confines of a fully installed traffic management arrangement, the beacons shall be switched off, unless they form part of the guarding of the works, e.g. works on minor roads, or are required for mobile works; see [Sections O10](#) and [O11](#).

**05.3.6** Vehicles engaged on snow clearing, gritting operations or similar work shall display an amber warning beacon at all times when operating.

### **05.4 IMPACT PROTECTION**

**05.4.1** Impact Protection Vehicles (IPV), Mobile Lane Closure (MLC) vehicles, and Mobile Carriageway Closure (MCC) vehicles shall be fitted with a lorry-mounted crash cushion (LMCC). For details of the latest minimum specification for LMCCs contact the relevant Overseeing Organisation. As higher specification LMCCs become available their use should be adopted if appropriate.

**05.4.2** It should be noted that vehicles fitted with a LMCC currently contravene the Road Vehicles (Construction and Use) Regulations 1986, as amended, with regard to the permissible overhang (regulation 11) when the LMCC is in operational mode. To enable the vehicle to be operated legally, a special dispensation known as a Vehicle Special Order (VSO) must be obtained from the Department for Transport before the vehicle is put into service. Further details about applying for a VSO can be found on the DfT website ([www.dft.gov.uk](http://www.dft.gov.uk)) under the heading "Vehicle special orders section 44 requirement".

**05.4.3** In addition to the overhang requirements of regulation 11, the vehicle must comply with all the other applicable requirements of the Construction and Use Regulations as well as those of the Road Vehicles Lighting Regulations 1989, also as amended.