MOT TESTING SCHEME

Requirements for Authorisation for a Vehicle Test Station

(Class 5 Vehicles)

INSTALLATION AND EQUIPMENT REQUIREMENTS
November 2009

The Vehicle & Operator Services Agency, on behalf of the Secretary of State appoints Authorised Examiners and Designated Councils to carry out inspections known generally as MOT tests. This document sets out the additional requirements that must be met for testing Class 5 vehicles.

IMPORTANT: THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE REQUIREMENTS FOR AUTHORISATION FOR A VEHICLE TEST STATION (COMMON TO ALL CLASSES) AND REQUIREMENTS FOR AUTHORISATION FOR AUTHORISED EXAMINERS.

WARNING: Applicants are advised not to proceed with alterations to buildings or purchase of equipment, etc, before receiving written approval in principle from the Vehicle & Operator Services Agency.

THE DIMENSIONS IN THIS SECTION ARE THE **MINIMUM** REQUIREMENTS FOR AUTHORISATION AS A VEHICLE TEST STATION FOR CLASS 5 VEHICLES.

The dimensions of your test bay should take into account the requirements of your business. **When considering the contents of this document you should be aware that the equipment and/or layout selected may affect the type of vehicle able to be tested.**

Contents

1. Requirements for Class 5 Testing.

1.1 There are three categories for Class 5 testing, these being:-

a) Category 1: all single deck vehicles.

Note: Class 5 lightweight vehicle premises have the same requirements as for Class 7.

b) Category 2: double deck vehicles.

c) Category 3: articulated vehicles.

Note: Normally only a drive through layout will be accepted where approval is sought to test articulated vehicles.

2. Premises, Test Bay and Equipment Layout.

Premises, test bays and equipment will be considered suitable if they meet the requirements laid out in "Requirements for Authorisation for Vehicle Testing Station (Common to all Classes)".

2.1 **Premises with:**

a) a facility to prevent the build up of exhaust fumes, either by means of ventilation or by exhaust extraction equipment for connection to the exhaust pipes of vehicles.

2.2 **A test bay with:**

a) vehicle entrances and exits at least 4.6m high and 4.2m wide for double deck vehicles; 3.7m high and 4.2m wide for single deck vehicles

b) a width of at least 4.5m

c) headroom of at least 5.0m for double deck vehicles and 4.0m for single deck vehicles (except over a lift)

d) headroom over a lift of at least 6.3m for double deck vehicles or 5.3m for single deck vehicles, measured from the platform surfaces when fully lowered, extending over an area of at least 1.5m on each side of the lift longitudinal centre and at least 6.5m fore and aft of the lift transverse centre line.

3. Underside Inspection.

The designated means of inspecting the underside of vehicles will be considered suitable if either a lift or a pit meeting the following is provided.

3.1 **Lift:**

A wheel supporting platform lift:

a) platforms without upstands or guard rails at least 7.0m long

b) rolled edges or vertical rails for jacking equipment must not be more than 25mm higher than the platform

c) the platform length does not include access ramps

d) if a scissor lift is used, the scissors must be located underneath the platforms, allowing unobstructed access between them

e) platform surfaces capable of being raised at least 1.45m from the floor. Measured from the floor on which the lift is mounted

f) a width between posts should be 2.88m

g) minimum width of platforms 650mm

h) a minimum width of 2.55m between the outer edges of the platforms

i) a minimum width of 800mm between the inner edges of platforms

j) a safe working load (SWL) of at least 12 tonnes; the SWL to be clearly marked on the lift

k) jacking equipment (preferably power operated)

   i. on a trolley platform able to move an appropriate distance along the lift

   ii. clearly marked with a minimum SWL of 6.0 tonnes

   iii. capable of simultaneously raising both front wheels of any vehicle, using the recommended test procedures and jacking points

   iv. It must also be capable of lifting vehicles fitted with independent suspension

l) at least two chocks, permanent chocks may be fitted at the platform forward ends, if not a 'drive-through' installation

m) confirmation in writing by the lift installer that the installation of the lift complies with BS 7890:2003. Vehicle lifts with CE marking and modifications

to existing vehicle lifts should conform to BS EN 1493:1999 regarding safety distances for toe protection

n) a satisfactory 'intercom' system between the examiner and the assistant. Means of communication will be considered on their merits

o) wheel play detectors may be installed on each side of the lift at the point where the jack will be used and if installed must be controlled by a "wandering" hand control at this point so that the tester may remain close by a wheel when the wheel play detector is operated to inspect for wear.

3.2 **A pit with:**

a) an uninterrupted working length of at least 13.0m (may be reduced to a minimum of 10m if two cross tunnels, one at either end are provided)

b) a width of at least 800mm and not more than 1.3m, over the working length

c) a depth of at least 1.4m and not more than 1.8m, over the working length. Staging may be used to meet this requirement

d) the capacity to accommodate the weight of all vehicles that fall into the category to be tested

e) sealed to prevent the ingress of water

f) jacking equipment preferably power operated, on a trolley platform able to move an appropriate distance along the pit. Having a minimum SWL of 6.0 tonnes, capable of simultaneously raising both front wheels of any vehicle using the recommended test procedures and jacking points. It must also be capable of lifting vehicles fitted with independent suspension

g) adequate access for personnel which does not intrude on the working dimensions, there must be at least one method of easy access either by a staircase at one end of the pit or by a cross tunnel, and adequate escape facilities either at the other end of the pit or along its length

h) a satisfactory 'intercom' system between the examiner and the assistant. Means of communication will be considered on their merits

i) any upstands/guard rails if fitted, to be no higher than 25mm

J) wheel play detectors may be installed on each side of the pit at the point where the jack will be used and if installed must be controlled by a "wandering" hand control at this point so the tester may remain close by a wheel when the wheel play detector is operated to inspect for wear.

4. Headlamp Aim Testing.

A headlamp aim testing facility will be considered suitable if the following is provided:

4.1 A rail mounted headlamp tester on VOSA's latest List of Acceptable Equipment

4.2 A headlamp tester installation with:

a) a designated vehicle standing area which is certified as flat and level to within ± 6mm in any 3.0m and is either, a clearly marked area of floor 11.0m long by 3.0m wide, which may straddle a pit, or roller brake tester, or is the lift platforms

b) rails mounted and certified as parallel to within ± 2mm of the standing area plane

i) The certificate for 'a' and 'b' above must show height measurement from a level plane at all intersecting points on a 500 mm (max) square grid covering the standing area and at points 300mm (max) apart on the rails. It must be signed by a competent person, such as a surveyor, manufacture's representative or agent and include date, status, address of firm and VTS address. A copy must be provided to VOSA for placing on the garage file. If the Roller Brake Tester encroaches on the standing area then the standing area levels must include the cover plates and meet the ±6 mm requirements

ii) If the lift platforms form part of the standing area then steel plates must be fitted under automatic chocks. If the lift is also used as the designated standing area for headlamp testing, the platforms must rest on fixed stops when lowered

c) equipment correctly aligned to the standing area and positioned to take account of the vertical and horizontal location of headlamps tested

d) 1.0m (600mm for 2005 specification equipment) clearance at the rear of the tester optical head. Floor mounted equipment such as brake testers must not be installed in this area

e) the standing area must be durably and clearly marked with a datum line (or lines) at the headlamp tester manufactures operational tolerance limits for positioning the vehicle headlamp in relation to the headlamp tester.

f) any other test equipment within the standing area arranged so that it does not interfere with the proper testing of headlamps

g) additionally, in all installations, it is recommended that the rails are sunk into the ground to avoid any excess wear and tear on them. Where vehicles are driven over them the rails must be recessed or suitably protected.

4.3 Suitable arrangements for checking the alignment of the equipment with the standing area. Arrangements for checking alignment may consists of evidence provided either by a competent outside agency or by the VTS using the manufacturer's acceptable equipment. Provision must be made for checks to be carried out at no more than 6 monthly intervals and for records to be kept. It is acceptable if an alignment check is within the 6th calendar month in which the alignment was last checked.

5. **Brake Testing**.

Brake testing equipment will be considered suitable if the following are provided:

5.1 A calibrated decelerometer on VOSA's latest List of Acceptable Equipment

5.2 A calibrated roller brake tester on VOSA's latest List of Acceptable Equipment.

5.3 A roller brake tester (RBT) must be installed so that:

a) it is centrally located in an unobstructed, substantially level area, at least 22.0m long and 4.0m wide

b) 11.0m standing area to the rear of the RBT may extend outside a building provided the ground is substantially level is constructed of acceptable material and the roller brake tester bed plate is installed not less than 1.5 m from an entrance or exit

c) vehicles are substantially level while being tested (a gradient of not more than 5%)

d) the console is positioned so that it can easily be read by the tester performing the test on the vehicle

e) an intercom system allowing the tester to communicate with the assistant when any axle is positioned in the brake rollers

f) any part of the roller brake tester is at least 600mm from an inspection pit, lift platform or lift recess (except cross pit rollers)

g) when a cross-pit RBT is installed there must be an isolator that prevents operation of the RBT when a person is in the pit. It must be positioned so other equipment will not interfere with brake testing

h) there must be four chocks available for use in the roller brake test area

i) the RBT may be installed outside the building. The rollers should have a canopy to protect them from the rain and the console should be mounted in a suitable position protected from the weather and excessive exhaust fumes. The brake tester should be situated adjacent to the test bay with a viewing facility.

5.4 roller brake tester user/operator instructions are available.

5.5 suitable data on ABS warning systems is available.

5.6 a means of determining brake efficiency and imbalance from the roller brake tester readings is available.

5.7 suitable arrangements are made for re-calibration of the decelerometer, and the roller brake tester.

6. **Emissions Testing**.

All class 5 testing stations must have the following emissions testing equipment:

6.1 **Spark Ignition Engine Emissions.**

Exhaust gas analysis equipment will be considered suitable for all spark ignition engined vehicles if the following is provided:

a) a calibrated exhaust gas analyser on VOSA's latest List of Acceptable Equipment

b) gas analyser user/operator instructions

c) confirmation that the analyser contains the current up to date data base.

6.2 **Diesel Engine Emissions**.

Diesel smoke test equipment will be considered suitable if the following is provided:

a) a calibrated diesel smoke meter on VOSA's latest List of Acceptable Equipment.

b) Smoke meter user/operator instructions