MOT TESTING SCHEME

Requirements for Authorisation

CLASS V VEHICLES
INSTALLATION AND EQUIPMENT
REQUIREMENTS
YEAR 2004

The Vehicle and 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 application procedure and requirements that must be met.

IMPORTANT: THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE REQUIREMENTS FOR AUTHORISATION FOR VEHICLE TEST STATION (ALL CLASSES)

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 and Operator Services Agency.

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Requirements for Class V Testing

1. There are three categories for Class V testing, these being:-

   Category 1. all single deck vehicles.

   Category 2. double deck vehicles.

   Category 3. articulated vehicles.

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

Premises, Test Bay and Equipment Layout

Premises, test bays and equipment layouts will be considered suitable if they meet the following:

1. **Premises with:**

a) a test bay and observation area housed in a weatherproof building. Roller brake testers may be installed outside the building;

b) equipment laid out so that testing can be performed effectively;

c) an unobstructed safe and easy access via a metalled road from the site entrance to the building entrance, such that vehicles can enter and leave the site in a forward direction;

d) at least two off-road parking bays, or more if necessary, clearly marked as being for MOT test vehicles;

e) a 'diesels tested' sign

The parking bays should be on hard standing each being not less than12.0m by 3.0m marked by lines on the ground. If the average throughput is high (say over 20 tests per day) additional bays may be required at staff discretion. There must be a notice which clearly reserves the bays for MOT vehicles.

f) there must be 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;

g) the test facilities must be reasonably free from oil contamination, exhaust fumes, noise or other pollution from adjacent work areas.

2. **A test bay with:**

a) clear unobstructed access from the entrance of the building;

b) 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.

c) a width of at least 4.5m (minor intrusions such as wall piers may encroach on this dimension provided vehicle testing is not impeded);

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

e) 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;

f) adequate general illumination.

Premises, Test Bay and Equipment Layout *(cont…)*

3. Equipment laid out:

a) without walls or partitions between adjacent test bays;

b) with at least 4.0m between the centre lines of test equipment in adjacent bays, test equipment to be centrally located in test bays;

c) with at least 0.5m clearance around all parts of the lift, including control boxes;

d) there must be clearance of at least 1.0m fore and 1.5m aft of the lift to any entrance/exit door or wall.

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:

1. A wheel supporting platform lift (not centre post type) or a scissors lift with:

   a) platforms at least 7.0m long;

   b) platform surfaces capable of being raised at least 1.45m from the floor;

   c) width between posts should be 2.88m;

   d) minimum width of platforms 0.65m;

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

   f) a minimum width of 0.8m between the inner edges of platforms;

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

   h) Upstands/guard rails, if fitted, not higher than 25mm;

   i) jacking equipment preferably power operated, on a trolley platform able to move an appropriate distance along the lift. 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;

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

   k) If recessed confirmation that clearance provisions are as laid down in BS 7980:2003 Code of Practice for vehicle lifts. (This applies to new installations only, for existing installations, confirmation that the lift met the BSI 161AU or Garage Equipment Association standard at the time of installation);

   l) confirmation in writing by a competent person that the lift complies with all current safety standards (e.g. protection against pinching and shearing and roll off safety devices);

   m) if the lift is also used as the designated standing area for headlamp testing, the platforms must rest on fixed stops when lowered;

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

   o) adequate general illumination.

Underside Inspection (Cont…)

In addition wheel play (check wear) 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 the tester may remain close by a wheel when the wheel play detector is operated to inspect for wear.

2. **A pit with:**

a) an uninterrupted working length of at least 13.0m;

b) a width of at least 0.8m and not more than 1.2m, 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) sealing, which prevents 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) there must be a satisfactory 'intercom' system between the examiner and the assistant. Means of communication will be considered on their merits;

i) adequate general pit illumination;

j) Any upstands / guard rails if fitted, to be no higher than 25mm.

In addition wheel play (check wear) 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.

NOTE: A pit must be kept clean, dry and free from oil deposits and combustible hazards. The pit should be either tiled or painted in a bright colour.

Headlamp Aim Testing

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

1. A rail mounted headlamp tester either:

   a) on the VOSA's latest list of Acceptable Equipment; or

   b) accepted by VOSA for use under the arrangements detailed in "Requirements for Authorisation for Vehicle Testing Station (All Classes)".

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 m 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 the 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.

   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 (0.5m 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 height of the optical head must be adjustable so that the centre of the headlamp tester lens can be set to heights between at least 550mm and 1150mm (500 and 1200 for 2005 specification equipment) above the standing area.

   f) the floor must be durably and clearly marked with a datum line (or lines) at the recommended headlamp tester to headlamp lens distance (or zone) limits;

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

   h) 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.

Headlamp Aim Testing (Cont…)

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.

Brake Testing

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

1. a) A calibrated decelerometer on VOSA's latest List of Acceptable Equipment;

   b) A calibrated roller brake tester on the VOSA's latest List of Acceptable Equipment.

2. A roller brake tester must be installed so that:

   a) it is centrally located in an unobstructed, substantially level area, at least 22m long and 4.0m wide;

   b) 11.0m standing area to the rear of the roller brake tester 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) there shall be an intercom system allowing the tester to communicate with the assistant when any axle is positioned in the brake rollers;

   f) the distance between the first aperture of the roller brake tester bed plate and the end of the lift or pit must be at least 1.5 m;

   g) a cross-pit RBT is acceptable provided that the length of pit taken up by the RBT shall be in addition to the 13m. There must be a minimum distance of 1.5m from the first aperture in the RBT bed plate and the minimum pit length. A cross pit RBT shall have a protection device fitted that prevents the rollers being started when a person is in the pit adjacent to the RBT;

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

   i) The roller brake tester 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

3. Roller brake tester user/operator instructions are available.

4. Suitable data on ABS warning systems is available.

5. A means of determining brake efficiency and imbalance from the roller brake tester readings is available.

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

Emissions Testing

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) An oil temperature measuring device on VOSA's latest list of Acceptable Equipment.

c) Smoke meter user/operator instructions;

d) Suitable arrangements for re-calibration.

SPARK IGNITION ENGINE EMISSIONS

All Class V only testing stations wishing to test spark ignition engine vehicles must have an analyser which meets the requirements of 1 or 2 below.

Testing station wishing to test only vehicles first used before 1 August 1994 may have an analyser which meets the requirements of 1 below.

There are no current plans for Class V testing stations to have to upgrade to 1996 EGAs in the foreseeable future.

1- Exhaust gas analysis equipment will be considered suitable for testing pre 1 August 1994 vehicles, if the following is provided;

a) a calibrated exhaust gas analyser on VOSA's latest list of acceptable equipment for testing pre 1994 vehicles;

b) gas analyser user/operator instructions;

c) suitable arrangements for re-calibration.

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

a) a calibrated 1996 specification exhaust gas analyser on VOSA's latest list of acceptable Equipment;

b) gas analyser user/operator instructions;

c) suitable arrangements for re-calibration.