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## **PUBLIC SERVICE VEHICLE TESTING**

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## Public Service Vehicle Testing

### SUBSECTION 1: Test Lane Procedures

#### 1. Introduction

This part outlines the test lane procedures that should be adopted at each stage of the PSV test.

*NOTE: For clarity when reading this section - where any person is undertaking statutory testing, the word "Examiner" - relates to them.*

It also gives guidance on other procedural aspects that should be closely followed in order to ensure that the inspection is carried out in a safe and uniform manner.

*NOTE: See also Inspection Procedures section of this manual and for details of equipment operating procedure see Equipment Use & Maintenance Manual.*

The test is divided into 5 inspection stages 'A', 'B', 'C', 'D', and 'E'.

#### 2. Stage 'A'

This is the first stage of the test before the vehicle travels over the pit or hoist.

It is at the discretion of the Examiner whether the vehicle is inside or outside the station much will depend on weather conditions, the length of the vehicle and layout of the testing premises. However at this stage of the test every endeavour should be made to ensure that the vehicle exhaust is directed outside the premises.

*NOTE: The inspection of the obligatory lights and reflectors (stage 'C') may be carried out in conjunction with stage 'A'. Stage 'E' inspection of the interior passenger saloon areas may also be carried out in conjunction with stage 'A'. Generally it is at the discretion of the Examiner whether these stages are carried out in conjunction with another stage or separately.*

#### 3. Operations at Stage 'A'

- a) Check that the documentation is in order and refers to the vehicle to be examined.
- b) Check the vehicle's technical record for details which may affect the items to be examined eg. Year of first use for seat belts or DDA schedules 1,2 or 3 for accessibility features.
- c) Determine that the vehicle is in a suitable condition to be admitted to the test hall and that the test can proceed.
- d) Check that the vehicle is not too high to enter the test hall and also that it will clear the upstand rail etc when driven over the pit/hoist.
- e) Carry out the inspection of items 1 to 39 of the Inspection Manual and any other items that can be more readily seen at this stage.

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#### 4. Stage 'B'

This stage of the test is the underneath inspection with the vehicle on the designated pit or hoist.

#### 5. Operations at Stage 'B'

- a) Before commencing the underneath inspection the Examiner should verify that he can communicate clearly with the driver.

In multi-lane stations it will be necessary to precede instructions with the lane number to avoid confusion with instructions from adjacent lanes. The driver should be instructed to operate the controls as directed.

- b) Carry out the inspection of items 41 to 59 of the Inspection Manual and any other testable items that can be more readily inspected at this stage.

#### 6. Stage 'C'

This stage of the test is the inspection of the obligatory lights and reflectors.

*NOTE: Stage 'C' may be carried out in conjunction with stage 'A'.*

#### 7. Operations at Stage 'C'

Inspect items 62 to 67 of the Inspection Manual, using the headlamp beam tester to test headlamp aim. Guidance notes on the use of the beam tester are in the Equipment Use & Maintenance Manual.

#### 8. Stage 'D'

This stage of the test consists of the braking systems performance checks using the roller brake test machine. Guidance notes on the use of roller brake testers are in the Equipment Use & Maintenance Manual.

#### 9. Operations at Stage 'D'

- a) With the vehicle front axle positioned squarely on the rollers of the brake test machine, chock the rear wheels of the vehicle. (unless using a VLT Roller Brake Tester).
- b) Connect the exhaust extraction equipment if available and safe to do so, establish communication with the driver via the speaker / intercom system.
- c) Ensure that the air reservoirs are fully replenished.

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- d) Check that no persons are within the possible danger areas and carry out the brake test in accordance with Inspection Manual items numbers 71 to 73.
- e) Instruct the driver to move the vehicle forward and position the rear wheels squarely on the rollers, chock the front wheels and repeat a) to d) above.

#### 10. Stage 'E'

This stage of the test is the inspection of the interior passenger saloon areas. Generally it is at the discretion of the Examiner whether this stage is carried out in conjunction with another stage or separately.

#### 11. Operations at Stage 'E'

Carry out the inspection of the testable items that can be seen from inside the interior saloon areas.

#### 12. Completion of the Test Card

*NOTE: COMPUTERISED TEST LANES SYSTEM - where the Examiner is using a computerised test results system, all forthcoming references relating to the completion of a "test card" should be read as completing the computerised test result system. For further guidance, see the computerised test results operating instructions.*

A failure should be noted by drawing a circle around the number next to the inspection item printed on the test card. Enter the details in the "Notes relating to defect markings" section of the test card by writing the Inspection Manual number and the nature and location of the defect eg if the nearside wing was torn it would be appropriate to write "14 N/S/F torn".

*NOTE 1: When describing the location of defects the terms nearside and offside must be used or abbreviated to n/s or o/s.*

*NOTE 2: Vehicles failed under Inspection manual item 74, for other dangerous defects not described by the Inspection manual, must also be issued with an immediate prohibitions notice.*

#### 13. Defect Rectification Policy - at VOSA Test Stations

This section of the Operations Manual explains VOSA's policy for the rectification of defects at VOSA owned testing stations This policy will allow (subject to the following conditions) for **some** minor repairs and/or adjustments to be carried out at VOSA stations, however, the completion of these repairs or adjustments may not alter the overall "fail" test result on the vehicle (see 'f' below). For **Emergency repairs** see Station Contingency Plan and Defect Rectification Policy.

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- a) Station Managers are expected to allow (where safe to do so) some minor repairs, that may have been overlooked by the operator when preparing their vehicle, or developed on route to the test station, however: -

- **Only authorised and supervised repairs or adjustments will be allowed at VOSA sites. Where any person is found not to comply with this requirement, they should be asked to stop work immediately and dependant upon the circumstances may be asked to leave the site.**
- **Under no circumstances will permission be granted for any repairs or adjustments to be carried out, other than on a supervised test lane.**

and subject to the following conditions: -

- b) If during the test **minor defects** are found, which you think the presenter/repairer accompanying the vehicle can rectify quickly and safely, a nominated member of staff (see Note 1 below) may (only if requested by the person accompanying the vehicle) agree to rectification work being carried out.

*NOTE 1: Before any members of staff are allowed to authorise rectification or adjustments they must be both suitably trained in carrying out an 'on lane repair' health and safety risk assessment and have been nominated by the Station Manager.*

*NOTE 2: Under no circumstances should repairs or adjustments be carried out until an 'on lane repair' health and safety risk assessment has been undertaken. For reference, see the green folder titled "Risk Assessment Manual." (Repairs or adjustments, which are of a potentially dangerous nature, however minor, must not be carried out).*

- c) Repairs to vehicles should only be allowed **if they are of a minor nature** and do not in any way delay the passage of any vehicle along the lane, or the flow of vehicles through the station. Station health and safety procedures must be observed at all times, and therefore: -
- VOSA staff **must not under any circumstances** supply tools or assist with repairs.
  - The use of jacks is prohibited (except in the case of a genuine puncture - at the discretion of the Station Manager).
  - No welding, cutting or heating is allowed.
  - No removal or repairs of major components will be permitted to be carried out, such as road springs and associated items, air suspension bags, spring brake chambers and the splitting of any brake chamber to replace diaphragms etc (**under no circumstances can any of these be considered to be minor repairs**).

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- No repairs **or adjustments** will be permitted whilst any part of the vehicle is within 1.5 metres of the brake machine's rollers.
  - On no account must work be allowed, **however minor**, which involves the lifting or removing of heavy items.
- d) If the rectification work can be carried out safely, whilst on the test lane, it may be carried out **but** only at the end of the examination of that particular stage, **and** provided that all the above criteria are adhered to.
- The aim of the headlights may be adjusted during the test if they can be done in reasonable time without causing delay to other vehicles waiting to be tested. If the headlamp aim cannot be adjusted i.e., due to seized adjusters or poor access, the vehicle should be moved to the next stage.
  - After completion of the test, if the presenter wishes to make the headlight adjustment, subject to station capacity, the vehicle can be returned to the headlamp aim test stage for adjustment and another check (subject to 'c' above).
- e) If the vehicle has failed for **minor defects**, which cannot be safely and quickly rectified on the test lane, or other defects, the vehicle must be failed and then submitted for a retest.
- f) If a Smoke Meter, Emissions Tester, Pit Jack, Wheel Shaker or Roller Brake Tester is needed to check the rectification of any defects, the Examiner should explain to a person making a request, that the vehicle must be **failed and a retest fee will be payable**.
- g) Where rectification of defects has been allowed, and completed, the Examiner must carry out a full re-examination of the item(s). For every defect item rectified, the Examiner must indicate its rectification, in the "Notes" section of the inspection card, by writing in the number of the inspection item, followed by the letters "PRS" (Pass after Rectification at Station) and his/her initials. If all items relating to a stage are cleared the Examiner must also **clip** the appropriate box in the "Pass" summary block **and** cancel the clip in the box of the fail summary block, by putting a cross in the box and initialling it.
- h) Following a PRS the Examiner should check the inspection card, make his/her determination and is satisfied, should clip the "PRS" box in the test result box.

#### 13a. Defect Rectification Policy - at Designated Premises

This section of the Operations Manual explains VOSA's policy for the rectification of defects at Designated Premises (DPs) (*a notice explaining the DP's policy should be displayed on the test lane.*)

This policy will allow (subject to the following conditions) for **some** minor repairs and/or adjustments to be done on the test lane, however, the completion of these

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repairs or adjustments may not alter the overall “fail” test result on the vehicle (see para 13 ‘f’ above).

- a) Staff may only allow minor repair/s or adjustment/s to be completed on the designated test lane at the DP, subject to **all the conditions** contained in para 13 (PSV Defect Rectification Policy - at VOSA Test Stations) above.
- b) Where a request is made to undertake repairs or adjustments other than on the designated test lane, the person making the request should be made aware of the Rectification of Defects Policy for that site (there should be a poster displayed on the test lane indicating that DP’s policy). VOSA staff cannot, **under any circumstances**, authorise off lane repairs or adjustments.
- c) Where a vehicle has failed the test, the Examiner may be requested to suspend the final test result in order that the vehicle may be repaired off the lane, and be re-inspected later that same day. VOSA staff may do so, provided: -
  - the criteria of para 13 ‘f’ above, does not apply;
  - the vehicle has not left the site;
  - no removal or repairs of major components must be carried out, such as road springs and associated items, air suspension bags, spring brake chambers and the splitting of any brake chamber to replace diaphragms etc (**under no circumstances can any of these be considered to be minor repairs**);
  - undertaking the re-inspection does not consume too much of the Examiners time, or delay the Examiners departure time from the site.

Subject to the above, and where a re-inspection has taken place, para 13 ‘g’ and ‘h’ above will apply.

#### 14. Defect Rectification Notice at VOSA Test Stations and Designated Premises

At VOSA sites, the “Defect Rectification Policy” should be displayed in a prominent place within the Test Station reception. For VOSA’s Defect Rectification Policy, see sub sections 13.

At Designated Premises, the “Defect Rectification Policy” should be displayed in a prominent place within the designated test lane. For VOSA’s Defect Rectification Policy at DPs, see sub sections 13a. Station Managers need to ensure that the DP’s own defect rectification notice is displayed and up to date.

#### 14a. Additional information relating to the test card

##### Defects marked in error

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If a failure item is circled in error then a line should be drawn through the number and text of any item marked. The item number should then be written in the "NOTES" section followed by the word "ERROR" and the initials of the person carrying out the test.

#### Defects rectified at the station

Where an item(s) which has been marked as being defective is rectified at the station to the examiners satisfaction during the course of the test, enter in the notes section the defective item(s) number(s) followed by the letters "PRS" (IN CAPITALS) and initial after the entry. A defect must not be cancelled by drawing a line through the defect number and description where an item is rectified at the station. If all items relating to a stage are cleared the examiner must also clip the appropriate box in the "PASS" summary block and then cancel the clip in the box of the "FAIL" summary block by putting a cross in the box and initialling it.

#### 15. Extent of Retest Examination

##### Paid retest within 14 working days of a full examination

Retests are not confined to examining only those parts of the vehicle that were initially defective, however the short time since the first test means that it should not be necessary for the retest to be as exhaustive and time consuming as the first test.

An Examiner should be able to check that the statutory requirements have been met by concentrating on the failure items as well as having a general look at other items on the vehicle. This means that if during a retest examination of the failure items you find another fault that would mean that the vehicle would fail the test you should issue a further Notice of Refusal listing all of the failure items. This is not an instruction to carry out a full test as a retest but it does allow you to fail a vehicle with obvious defects, noticed during the retest, which are not on the original failure notice.

##### Example

A vehicle fails for service brake performance. When retested the service brake performance is found to be satisfactory but it is noticed that the brake lights are not working and that one tyre has a new deep cut in the tread which exposes the cords. The action to take would be to issue a further Notice of Refusal listing these two items

##### Retests for brake defects

All vehicles with defects that have involved disturbance of a braking system in the course of repair will be given a brake performance check. If the brake performance justifies rejection then the vehicle will be failed under the appropriate Inspection Manual reason for rejection.

##### Paid retest more than 14 working days after a full examination

Retests falling within this category must receive a full examination and a full test fee will be charged.

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#### Part paid retests

The conditions governing part paid retests are contained in Regulation 20(7) of the Motor Vehicles (Tests) Regulations 1981 (as amended). Basically they are as follows: -

For certain failure items a part paid retest is allowed provided that the vehicle is presented for retest before the end of the next working day following the day on which it initially failed, and where an examiner is already on the premises for the purpose of carrying out an examination on another vehicle.

Subject to the above requirements the test items for which a part paid retest will be given are: -

IM	No
9	Bumper bars
10	Spare wheel carrier
16	Restricted to: markings indicating and describing the method of operating passenger doors and exits.
21	Restricted to: interior cleanliness, fire extinguisher, first aid kit, and legal markings
22	Mirrors
23	View to front
25	Windscreen wipers and washers
26	Speedometer/Tachograph
27	Horn
33	Speed limiter and plate
45	Restricted to: legal markings including fuel cut-off device location and operation
62	Rear reflectors
63	Headlamps, front and rear lamps, including rear fog lamps and stop lamps
66	Direction indicators/hazard warning signal device
67	Headlamp aim

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#### 16. Circumstances in which a Test may be Refused

The reasons why a test may be refused are contained in Regulation 13 of the Motor Vehicles (Tests) Regulations 1981 (as amended). These are as listed on form (VTP12) Notification of Failure to Comply with the Conditions for Accepting a Public Service Vehicle for Examination. If for any reason the examiner considers that a test should not start or be continued with then he/she should ask the driver to take the vehicle off the lane and park in a safe and convenient place and report to the office. The examiner will now complete form (VTP12) in duplicate and give the top copy to the presenter of the vehicle. In some circumstances it may be appropriate to issue a Prohibition at the same time. The reason for not proceeding with the inspection should also be written on the inspection card in the "notes section" and initialled. A copy of the VTP12 should be attached to the inspection card for future reference. (Add link to VTP12).

*NOTE: If a vehicle arrives late for an appointment and to start the test would seriously disrupt the other test appointments then the driver should be told that the vehicle cannot be tested. However he may be advised that if he is prepared to wait until the end of the test programme, on the chance that there may be a cancellation, it may then be possible to test the vehicle if time allows, within the period of the Examiner's planned programme.*

#### 17. Circumstances in which a Brake Test cannot be Carried Out

The reasons why a brake test cannot be carried out are contained in Regulation 16 of the Motor Vehicles (Tests) Regulations 1981 (as amended). Basically they are as follows:

An Examiner need not complete a test if he discovers any item which in his opinion makes it essential not to commence or continue with the brake test on the grounds of risk to any persons or damage to the vehicle or to any other property.

The reason for not completing the brake test together with any additional defects should be written on the test card. The reverse of the card i.e. "Notice of refusal of a test certificate" should state that "a full examination of the braking system could not safely be carried out".

#### 18. Health and Safety

The attention of all staff involved with PSV testing at HGV testing stations and PSV designated premises is drawn to the information contained in Health and Safety at Work policies published by the Department. This and all other matters relating to health and safety are contained in the Health and Safety manual. It is emphasised that when carrying out PSV tests only authorised equipment is to be used and also that correct procedures are closely followed in order to ensure that the inspection is carried out in safety. Examiners should familiarise themselves fully with all authorised equipment both at VOSA testing stations and designated premises before commencing testing.

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#### General safety requirements

The following directions are brought to the attention of staff as a reminder of general safety precautions both in VOSA testing stations and designated premises: -

- Keep the working area clean.
- Ensure that any oil etc is cleaned up immediately.
- Keep the walkways clear of equipment, small tools etc.
- Before opening a vehicle door ensure that no one is about to walk past.
- Always stow equipment in its proper place after use.
- Ensure that all external covers and hatches are firmly latched before moving a vehicle or operating a hoist.
- Before moving a vehicle over a pit ensure that the pit is clear and free from obstruction.
- Before operating a hoist ensure that the area is clear and free from obstruction, and that wheel chocks are positioned so as to prevent any vehicle movement, the chocks must be in place before the hoist is raised and remain in place until the hoist is fully lowered. Failure to follow this procedure will result in disciplinary action.

*NOTE: The "automatic chocks" which lift when a hoist is raised or fixed end plates are not considered adequate to restrain the vehicle.*

- Wear a protective Bump Cap when in the pit.
- Keep out of reach of moving parts and do not place fingers on or near any part that may be moved inadvertently or otherwise by the driver, e.g. steering and brake components.
- Give clear and concise instructions to the driver.
- Do not allow drivers or other persons accompanying a vehicle to assist in moving or operating equipment.
- When carrying out brake performance checks on VLT roller brake testers, it will no longer be necessary to chock the wheels of vehicles except vehicles fitted with transmission park brakes. Chocks must always be used when using other type of roller brake testers.
- Do not allow anyone near the roller brake tester or to stand immediately to the rear of any vehicle when vehicles are positioned on or near the roller brake tester.
- "No smoking" on the test lane.

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- Report all defective equipment immediately. (Note - Station managers are responsible for ensuring all testing equipment is maintained in a safe and serviceable condition)

#### Starting engines - safety

Examiners should adhere to the following procedures when starting engines: -

- Ask the driver to identify the controls and switches and ascertain if any special precautions are required during engine starting procedures.
- Ensure that the parking brake is applied.
- Ensure that the transmission control is in the neutral position.
- Fully depress the clutch and hold it down (where fitted).
- Start the engine.
- Apply the footbrake and slowly withdraw the clutch so that the vehicle can be checked for any sign of movement. If there is no sign of vehicle movement fully disengage the clutch and proceed with the test.
- Vehicles fitted with automatic or semi automatic transmission must have their rear wheels chocked
- The engine must not be started when the vehicle is jacked up.

#### Vehicles fitted with power steering

To comply with the requirements of IM54 steering (Procedures and Standards) the front wheels of a vehicle fitted with power steering must be raised from the ground with the engine running.

The procedure detailed in "Starting Engines" above must be observed when starting a vehicle engine.

Vehicles with automatic transmission must have their rear wheels chocked.

Only after the above procedures have been carried out should the vehicle be raised on the jack.

#### Jacking Procedures

It is important that all inspection staff are familiar with the power jack before use. See Equipment Use & Maintenance Manual for operation and use of the Churchill 1350 pit jack along with specific safety instructions:

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- Remember when using the jack raise the vehicle only by the minimum amount necessary for the steered wheels to be sufficiently clear of the ground to release tyre load and allow easy movement of the steering.
- Always return the ram to its fully lowered position immediately after use (mind your fingers!) and park the jack on the air hose side of the pit at the vehicle exit end against safety stops (stowed position).
- Move the jack trolley on the pit rails only with a controlled movement. Do not give it a "send off" push and allow it to travel without restraint.
- Do not locate the jack so that there is strain on the air hose.
- Report any defects noticed.

#### 19. Vehicles Entering or Leaving Test Halls

The responsibility for vehicles entering and leaving the test hall will rest with the examiner who must ensure that the entry/exit doors are raised to the fully open position before the driver is instructed to enter or leave the test hall.

A serious view will be taken of any incidents, and accident reports must detail the full circumstances of each case, indicating whether the fault was due to negligence by the staff concerned (and if so, what corrective action has been taken locally), or, if by the driver, whether it is known if the VOSA are pursuing a claim against the owners of the vehicle.

Station Managers must ensure that vehicle examiners are fully aware of their responsibilities and comply with the above procedures.

#### 20. Removal of Vehicles from Inspection Lanes

If a vehicle is accidentally driven down the pit, the Station Manager or Lane Supervisor will make an assessment as to how the vehicle may best be removed (taking account of the guidelines in the Local Contingency Plan). Should the service of a local garage which has a suitable recovery vehicle be required the cost of recovery should be accounted for under the stations account codes "Vehicle Testing Incidental" "VTI". Details of the incident should be recorded in the stations Accident and Incident book.

It is advisable that Station Managers should make prior contact with the owners of recovery vehicles so that emergency action can be taken quickly.

***"In cases where a vehicle fails to start or where there is a loss of drive, the lane supervisor will make an assessment as to how the vehicle may best be removed, using the Local Contingency Plan guidelines. Staff must give due consideration to health and safety, and take all necessary precautions to minimise the risk of injury to people or property. On no account must staff attempt to push vehicles anywhere on the site, or allow (or assist) customers to do so. Nor should they offer for use any tow rope or bar."***

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#### 21. Failure of inspection equipment

Follow the procedures laid out in the Local Contingency Plan. The following are possible actions which may be taken to keep the inspection lane operational, provided all health and safety requirements are complied with:

- a) If the electrical equipment for the door gear should fail, the chain provided for manual operation should be fitted and doors opened and closed manually.
- b) Failure of powered pit jack. If a manual alternative is available on site and LOLER tested that should be used, providing it has an adequate safe working load and the manufacturers instructions are followed.
- c) Failure of communication system. Ordinary verbal instructions will have to be given.
- d) Failure of pit inspection lamp. Use hand torch.
- e) Headlight Tester. The Tester is not likely to fail in service except perhaps the photo electric cell. In most cases headlamp aim is checked by observing the beam pattern on the screen and therefore if the photo electric cell fails, headlamp aim can continue to be checked.
- f) Load Simulator. Where there is another load simulator its use should be shared, otherwise it will be necessary to use the brake tester without a load simulator.
- g) Roller brake tester. Where there is another brake tester its use should be shared otherwise use the decelerometer for motor vehicles. The use of a computerised roller brake tester in manual mode will only be allowed where problems are experienced with software and permission has been granted by the Station Manager.
- h) Wheel play detector. Play should be checked by the alternative method of rocking each wheel by means of the bar.

#### 22. Duties of a Driver

Examiners must ensure before starting a test that the driver accompanying a vehicle is prepared to remain with it throughout the test, and that he/she must drive the vehicle, operate the controls, open and close floor traps, inspection panels and side flaps as directed.

The driver of a vehicle submitted for test, retest or appeal etc, is obliged by the Regulations to remain present throughout the whole of the test, unless he/she is permitted to be absent by the person carrying out the test. He/she is also obliged to drive the vehicle if directed to do so, operate the controls in accordance with any directions given and open/close inspection panels and side flaps as directed. Any

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failure to comply with the above requirements should be reported to the Station Manager.

#### **23. Discussion with Operators**

Discussions with operators or representatives should be kept to a minimum during tests as this will distract the Examiner and delay the passage of vehicles through the station. If they challenge a decision, examiners should not get involved in arguments but refer them to their rights of appeal and offer the necessary appeal forms.

**UNDER NO CIRCUMSTANCES MUST EXAMINERS ARGUE OR DISAGREE WITH EACH OTHER ABOUT DEFECTS WITHIN THE HEARING OF THE OPERATOR OR REPRESENTATIVE.**

#### **24. Unauthorised Persons on the Test Lane**

In the interests of safety, persons other than the driver of the vehicle should be kept off the inspection lane unless invited by the Examiner to see a particular item (persons and the driver, while on the test lane will be subject to station Health & Safety requirements).

Any person impeding the progress of a test or likely to endanger themselves or others should be asked to keep to the walkways in VOSA testing stations, or at a recognised safe distance in designated premises.

#### **25. Observation of test by operators**

An operator or representative may be allowed to witness the test providing all H&S requirements are followed. They should not normally be allowed in the pit, although exceptionally the Tester may invite them into the pit to show a particular item if necessary.

#### **26. Driving Vehicles during the Test**

Examiners are not authorised to drive vehicles presented for test. Drivers of vehicles presented for test must have a licence for the category of vehicle being tested. Occurrences of non compliance should be reported to the Station Manager.

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### SUB SECTION 2: Inspection Procedures

#### 1. Introduction

This part sets out in detail the inspection procedures that must be carried out on the vehicle at each stage of the test.

#### 2. Stage 'A'

OP No	Insp Manual Ref	Procedure
1		<p>a) Check that the documentation for the vehicle is in order and refers to the vehicle to be examined. Check the vehicles technical record to establish the standard of test to be applied (is DDA applicable) and if the vehicle has a COIF or Certificate of Conformity, if no technical record exists contact PSV section Swansea</p> <p>b) Determine that the vehicle is in a suitable condition to be admitted to the test hall and that the inspection should start.</p> <p>c) Check that the vehicle is of a type which can be driven over the pit/hoist.</p> <p><i>NOTE 1: The methods of inspection given in the manual assume that only those parts of a vehicle which can readily be seen without dismantling are to be examined. However, all floor traps, wheel embellishers, hatches, engine and external covers should be opened / removed and articulation bellows parted where possible. Buggy key and screwdriver are acceptable tools for opening flaps access hatches.</i></p> <p><i>NOTE 2: If it is found necessary for external covers and hatches to be opened ensure that throughout the inspection before any movement of the vehicle takes place that the covers and hatches are closed and firmly secured.</i></p>
2	9, 25	<p>Start the inspection at the nearside front of the vehicle. Moving across the front of the vehicle from nearside to offside examine bumpers and wiper blades for condition and security.</p> <p><i>NOTE: Where access to the engine compartment is available at the front of the vehicle examine those items set out in operation 10 (as appropriate) plus any other items such as steering couplings or clamp bolts that may through design be more easily seen at this stage of the inspection.</i></p>
3	16	<p>At the offside of the vehicle in a position outside the vehicle, but adjacent to the driver's accommodation, examine the general</p>

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OP No	Insp Manual Ref	Procedure
		condition and operation of doors and emergency exits (as appropriate) and the presence and effectiveness of descriptive markings, warning and safety devices.
4	22	Check the security and condition of the offside mirror and mounting bracket.
5	14	Examine the offside front mud wing or other similar fitting.
6	7	Check the offside front tyre for size, type, speed rating and ply rating or load index.
7	8	Examine the offside front tyre for condition and correct seating on its rim.
8	6	Examine the offside front road wheel and hub for security, condition and any mismatching or wear between the wheel and fixings or location.  <i>NOTE 1: It will be necessary for the operator to remove wheel embellishers if there are grounds for suspecting security of the wheel assembly.</i>  <i>NOTE 2: It may also be necessary to move the vehicle to expose hidden parts of tyres and wheel.</i>
9		Progress along the side of the vehicle inspecting all the testable items in one vertical plane before moving onto the next. During these alternate movements check for security, condition and operation (as appropriate) of the following (dependent upon design):-
	19, 20	a) Upper and lower saloon body - underparts, panels, load bearing members, fixings and mountings.
	20, 11	b) Access doors, flaps, luggage compartments, check straps and guard rails and if appropriate concertina bellows on articulated buses.
	41, 43, 44	c) Chassis, engine mountings, sub frame and also check for oil or waste leaking from assemblies.
	59, 11	d) Brake components such as mechanical linkages, reservoirs, servos, valves, master cylinders, pipes and hoses, compressor drive belts and articulated bus connections.

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OP No	Insp Manual Ref	Procedure
	42	e) Battery, electrical wiring and equipment.
	10	f) Spare wheel carrier and spare wheel.
	46	g) Exhaust and waste systems including a check on the presence and adequacy of grease shields, the type and position of exhaust and waste outlets, and that they do not foul and are not likely to contaminate or be a fire hazard.  <i>NOTE: This inspection (g) includes any ancillaries.</i>
	16, 20, 21, 24	h) Doors, emergency exits and steps and including a check on the presence, effectiveness and legibility (as appropriate) of descriptive markings, legal markings, warning and safety devices and if fitted ramps and lifting platforms (for wheelchairs) for operation. For vehicles with an accessibility certificate check the band of contrasting colour at steps, ramps and lifts.  <i>NOTE: The checks on 'steps' includes retractable steps to ensure that they are secure in the deployed and retracted position Also any safety systems which are intended to alert the driver, or prevent the vehicle from being driven when the step is deployed, or the step being deployed with the vehicle in motion are functioning correctly.</i>
	45	i) Fuel tanks and pipes including a check for leaks, presence, sealing of filler cap and security and effectiveness of carburettor (if fitted), drip tray and drainage pipe. In addition also check the marking, accessibility and operation of the fuel emergency cut-off device, that no fuel pipe runs immediately adjacent to electrical wiring and that spilt fuel cannot contaminate or accumulate in the vehicle. For vehicles fitted with combustion heaters check the accessibility, presence and markings of fuel cut-off device  <i>NOTE 1: This inspection (i) also includes a check on fuel systems for 'other facilities' to ensure that they can only be refilled from outside the vehicle and that adequate means of preventing fuel spillage are provided.</i>  <i>NOTE 2: Refer to Inspection Manual sections 21 and 46 for the definition of 'other facilities' and 'ancillaries'</i>
	33	j) Speed limiter and tamper proof seals/devices for presence and integrity

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
10	14, 7, 8, 6, 48	<p>At the position of the rear wheels and in addition to 9 above repeat operations 5, 6, 7 and 8 with reference to rear instead of front. Additionally examine attachment and condition of suspension units and associated linkages, also any items that are part of Stage 'B' Examination, but through design can more easily be seen and examined at 'A' stage.</p> <p><i>NOTE: Pay particular attention to size of tyres on twin combinations.</i></p>
11		Repeat operation 9 as necessary along the remaining lengths of the vehicle to the offside rear corner.
12	11, 9, 20	During this operation also check the security and condition of other testable items that may be found in this locality such as trailer couplings, locking and safety devices, bumper bars and luggage compartment.
13	19	Continue beyond the vehicle a few paces and from the centre line of the vehicle, check for squareness of the body on the chassis frame.
14		Return to rear corner of vehicle and moving to the nearside repeat the inspections set out in operation 9 as necessary from the nearside rear corner of the vehicle to the position of the rear wheels.
15		<p>At the position of the rear wheels repeat 5, 6, 7, 8, 9 and 10 with reference to nearside rear instead of offside front.</p> <p><i>NOTE: Pay particular attention to size of tyres on twin combinations.</i></p>
16		Repeat operation 9 along the length of the vehicle between the rear and front wheels.
17	14	Examine the nearside front mud wing or other similar fitting.
18	7	Check the nearside front tyre for size, type, speed rating and ply rating or load index.
19	8	Examine the nearside front tyre for condition and seating on its rim.
20	6	Examine the nearside front road wheel and hub for security, condition and any mismatching or wear between the wheel and its fixings or location.

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
21	22	Check the security and condition of the nearside mirror and mounting bracket, and repeat operation 9 along the remaining length of the vehicle to the nearside front corner.
22	17, 18	Move to the driver's accommodation. Request the driver to alight from the vehicle. Examine driver's seat for security and condition. Check the condition of the driver's compartment floor and also the driver's grab handle and step for presence, condition and security. Check that there is adequate access to the driver's seat and take up position in the seat. Check presence, condition and operation of the driver's side signalling window, demisting or defrosting equipment and (if appropriate) the driver's emergency escape window.
23	18	Complete the examination of the driver's seat by checking the condition and security of the adjusting mechanism (where applicable).
24	3	If the vehicle has undergone a seat belt installation check or has (Obligatory) seat belts fitted at the driver's seat check the belts for presence, condition and security. Check also the structure of the vehicle or seat at the belt mounting point.
25	21	Check fire extinguisher for presence, type, condition and markings.  <i>NOTE: If markings are missing from a fire extinguisher advise the driver/operator.</i>
26	22	Check the number and position of rear view mirrors and their condition, and if one of these is the interior mirror check also for security. Check the number, position, security and condition of mirrors/periscopes which afford the driver a view of passenger entrances and exits and a view to the rear.  <i>NOTE: With regard to additional mirrors or periscopes fitted it is only a reason for rejection if they are in a condition likely to injure the driver or passengers.</i>
	24	For vehicles with an accessibility certificate check mirrors or other optical device for the driver to have a clear view of inside and outside those doors, with wheelchair lifts or ramps, which are not within the driver's direct line of sight also check the kneeling suspension controls and interlock where applicable.

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
27	23	Check the view to the front through the windscreen.
28	23	Check the condition of the windscreen glass, partitions and any side, roof or door window within the driver's accommodation and that they are of acceptable safety glass or safety glazing, secure and weatherproof.
29	25	Switch or turn on the windscreen wipers and washers check area of movement and the effectiveness of the wiper blades and washers. On dry windscreens operate wipers as briefly as possible.
30	26, 33	Check the presence, condition of a speedometer/tachograph and that it is capable of being seen from the driving seat in daylight and the hours of darkness. Check that the speedometer/tachograph is complete and has all necessary seals, plaques, calibration labels and covers.
31	33	If applicable, check the speed limiter operation using the Electronic Device or by checking 5 consecutive tachograph charts from the previous 28 working days <b>voluntarily</b> submitted to establish the maximum operational speed. Check for presence of a speed limiter plate
32	27	Check the accessibility, security and audibility of the audible warning device (Horn) and that it is of the correct type for the vehicle concerned.
33	42, 63, 66	Check that all switches and warning lights are clearly marked as to their purpose. Check also direction indicator switch and warning device and switches controlling head, side, rear lamps, hazard warning, and rear fog lamps. If appropriate check for presence and correct operation of rear fog lamp tell-tale and that it is readily visible from the driving seat.
34	28	By operation where appropriate, examine driving controls for functional completeness, condition, obstruction, operation and position. Check the anti-slip provisions on the clutch pedal pad and that the driver's accommodation is free from rubbish, ancillary equipment or other items liable to interfere with the proper control of the vehicle. Check the operation of the engine stop control.
35	30, 54	Check the amount of free play at the rim of the steering wheel. Note condition of wheel, hub, spokes and rim and their security. (Refer to Equipment Use and Maintenance manual for use of free play gauge if required). Check the amount of end float and side

## Public Service Vehicle Testing

### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
36	34	<p>play. When turning the steering wheel, check also for roughness or undue stiffness of steering gear such as might occasion failure under IM54.</p> <p>Deplete the service brake air/vacuum system by repeated application of the foot brake. Check the pressure/vacuum warning device (if required) for visibility during the hours of daylight and darkness and for correct working. (If additional audible warning device is found to be defective, advise driver).</p>
37	34, 46, 38	<p>Start the engine (making sure the vehicle is in neutral and the park brake applied) and run the engine at just below governed speed or at half engine speed for ungoverned engines, check time of build up of pressure/vacuum to Low Pressure Warning Device ceasing to operate. Check for fumes or odours entering into driver's and/or passenger accommodation whilst building pressure/ vacuum to maximum. On vehicles where brake action is assisted by vacuum from the engine check if this is operating satisfactorily by fully applying the service brake (prior to starting the engine) and note whether the pedal can be felt to dip when the engine is started.</p>
38	37, 38	<p>Check the condition, security and travel of the service brake pedal and the anti-slip provision on the pedal pad. Check the condition of the system as indicated by pedal feel under a firm and sharp application of the pedal held for 15 seconds. Also check during this application of the pedal any gauge readings that may be appropriate for an indication of a leak in the braking system.</p>
39	16, 38	<p>Check that the operation of any power operated door system does not adversely affect the efficient operation of the braking system, and if appropriate check the presence and operation of door interlock devices, and if an anti-lock braking system is fitted actuate the appropriate electrical circuits and check the warning lamp for correct sequence of operations.</p> <p><i>NOTE: If a vehicle is fitted with powered hydraulic brakes check that pressures are maintained when all brakes are off and the engine is switched 'off'.</i></p>
40	39	<p>Check the condition, position, security, operation and travel of brake hand lever/control valve and any associated connection on pressure or vacuum installations for security and leaks.</p>
41	42	<p>Check any television receiver that is fitted to ensure that it cannot be viewed by the driver whilst the vehicle is being driven.</p>

**Public Service Vehicle Testing**

**SUB SECTION 2: Inspection Procedures**

OP No	Insp Manual Ref	Procedure
42	5	<p>Ensure that the pressure/vacuum is built up to a maximum, the parking brake is on, and the engine is at or near its normal operating temperature. Leave the driving seat and instructing the driver to regain his seat.</p> <p><b>NOTE: At this stage of the test it may be appropriate to commence the stage E interior inspection.</b></p>
	46	<p>Identify type of fuel used diesel, petrol, LPG or other, whether engine is turbocharged or not so that the meter can be programmed accordingly. Determine the position of the exhaust outlet and insert the probe. Carry out the emission check as appropriate for the engine type.</p> <p><i>NOTE: some engines cannot be accelerated when the vehicle parking brake is applied, others emit excessive smoke. When testing such vehicles, the wheels must be chocked before releasing the parking brake to carry out the smoke check.</i></p> <p>At the same time check the effectiveness of the exhaust system.</p> <p>Remove the probe from the exhaust outlet. Return the metering equipment to the base unit and obtain a printed report on the result.</p> <p>Mark the inspection card as appropriate for this stage of the test. Request the driver to regain his seat, guide the vehicle over the inspection pit/hoist.</p>

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### SUB SECTION 2: Inspection Procedures

#### 3. Stage 'B'

A. Guide the vehicle over the pit and give instructions for the vehicle to be stopped when the front wheels are in the 'straight ahead' position and are, either:-

- a) resting centrally on the plate units of the wheel play detector; or
- b) resting centrally on the floor area above the pit and in a position which will allow for the safe and effective use of a jack to raise them from the ground.

B. Enter the pit (wearing bump hat) and before commencing inspection verify that the driver can hear and understand you via the pit communication system (in a multi-lane station each instruction will be preceded by the lane number).

C. The driver will be instructed to :-

- Stop the engine unless it is necessary to keep it running for the purposes of checking power steering. ( The engine must be stopped as soon as that check has been completed )
- Ensure the vehicle gear selector is in neutral (rear wheels must be chocked if the vehicle is fitted with either an automatic or semi automatic gearbox)

D. If the inspection is completed using a hoist, the vehicle must be manually chocked. The chocks must be positioned so as to prevent **any** vehicle movement. The chocks must be in place before the hoist is raised and remain in place until the hoist is fully lowered. Failure to follow this procedure will result in disciplinary action.

OP No	Insp Manual Ref	Procedure
1	54	<p>Whilst steering wheel is rotated (rocked) in a clockwise/anti-clockwise direction against road resistance, examine mechanism for excessive free play, fracture, security and locking devices. Also check (if applicable) power steering components for condition, operation, security and leaks.</p> <p><i>NOTE: If an external power steering system is fitted to the vehicle, at this stage with the engine stopped and the driver lightly rocking the steering wheel, check for excessive free play between ball-pin and valve. If excessive free play is suspected a further check should be made by applying manual effort to the ball-pin or ram body at right angles to the ram centre lines</i></p>
2	53	<p>Position the pit jack centrally under the axle. Raise the jack until the wheels of the vehicle are just clear of the wheel play detector plates. Check for excessive movement between stub axle and axle beam, or between a swivel joint and its housing, at the</p>

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
3	54, 59	<p>offside of the vehicle as weight is lifted off the wheels.</p> <p>Request the driver to rotate the steering from lock to lock. Examine steering linkage (including power steering if fitted), check for fouling, condition of components (including evidence of structural repair by welding or excessive heat having been applied) and presence, security and effectiveness of lock stops. Also take the opportunity of checking brake hoses for fouling and stretching and, if appropriate, rack gaiters for presence and condition, when the steering is in the full lock position. Should roughness or undue stiffness in the steering gear be suspected it will be necessary for the vehicle examiner to rotate the steering wheel from lock to lock to establish whether there is any restriction to movement. (If this procedure is required ensure all precautions are taken to ensure safe movement of people when leaving and returning to the pit and entering or leaving the vehicle).</p> <p><i>NOTE 1: If the vehicle is fitted with independent front suspension this operation should be carried out with the front suspension in the normal laden position. If turn-plates, or similar, are not available the suspension must only be jacked up sufficiently to relieve tyre load to allow easy movement of the steered wheels.</i></p> <p><i>NOTE 2: It may be advantageous to incorporate operation 12 with operation 8 and inspect the tyres whilst the steering is in the full lock position.</i></p>
4	53	<p>If any brakes on the front wheels are in the applied position request the driver to release them. Operate wheel play detector control to produce side to side movements of the plates and check the amount of movement between the stub axle and the axle beam, or in a swivel joint (together with its security to the stub axle and suspension arm). Also during this operation of the wheel play detectors check the amount of play in the wheel bearing.</p> <p><i>NOTE 1: During this operation the weight acting on a plate is to be adjusted by raising or lowering the jack so that when the control is operated the plate just slides under the tyre.</i></p> <p><i>NOTE 2: If no wheel play detectors are fitted a bar can be used for carrying out the checks referred to in operations 2 and 4 above.</i></p> <p><i>NOTE 3: Before it is decided whether the driver or an</i></p>

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
		<i>assistant should use a bar to assist you in the inspection, enquire if they are fit and familiar with the safe and correct use of the bar. If you are satisfied the person is suitable give the necessary instructions for the use of the bar at the appropriate time. If you are not satisfied that the person is suitable carry out the checks yourself or arrange for another fit and competent person to assist (ensure all precautions are taken to ensure safe movement of people entering or leaving the vehicle).</i>
5	48, 53	Request the driver to apply the footbrake and hold the steering wheel. Operate wheel play detector control to produce forward and backward movement of the plates. Check for movement at the stub axle, king pin/swivel joint, front axle and generally for any obvious wear and/or insecurity of the front suspension and linkages.
6	53	Request the driver to release the footbrake. Lower the jack and check for excessive movement between stub axle and axle beam, or between a swivel joint and its housing at the nearside of the vehicle.  <i>Note: excessive movement can be confirmed by using the appropriate feeler gauge</i>
7		Request the driver to stop the engine and fully lower the jack and traverse it to the air hose feed side of the pit.
8	59	Request driver to make a sudden and hard application of the footbrake and to hold the pedal in a downward position. Inspect front and rear hoses for ballooning and general deterioration of brake pipes and hoses by moving from the front to the rear of the vehicle. Check the condition of the load sensing valve and its operating linkage. Request driver to release footbrake.  <i>NOTE: Using a similar procedure for the secondary and park system, but amended as necessary dependent on design, check the secondary brake hoses for ballooning when returning to the front of the vehicle.</i>
9	59	In front of the axle at the offside front wheel examine visible mechanical brake connections. Air, hydraulic or vacuum brake wheel units. Brake pipes, reservoirs, servos, valves and connections. Where necessary, here and at other points, instruct driver to operate brake controls.

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<b>OP No</b>	<b>Insp Manual Ref</b>	<b>Procedure</b>
10	57	On front wheel drive vehicles check drive shaft inner and outer universal joints for wear, damage, security and constant velocity joint gaitors for presence, condition and security.
11	7, 8	At the offside front wheel examine the condition of tyres, and if not established on the external inspection also check as necessary for size, type, speed and ply rating or load index.
12	48	At the offside front examine the condition and attachment of suspension units and associated linkages to the chassis, sub frame or axle as appropriate. If fitted also check the shock absorber for condition, security and oil leaks.
13	41, 59	At the offside front examine the condition of the chassis and any brake components in this area.
14	41, 43	At the front examine the chassis cross member front engine mountings and subframe (if appropriate) for condition and security.
15	42	At the front examine any visible electrical wiring.
16	19	At the front examine any body mountings, fixings, securing bolts, rivets and welds for condition and security, also check as appropriate the condition of the body in the vicinity of the mounting points.
17		At the nearside front repeat operation 13
18		At the nearside front repeat operation 12
19		At the nearside front wheel repeat operations 9, 10 and 11
20		In the engine area in front of the axle examine (as appropriate) for:-
	42	a) Condition, security and position of all electrical wiring and equipment
	44	b) Oil and/or waste leaking from assemblies.
	45	c) Condition, security and position of fuel pipes, leaks from the fuel system and the effectiveness of carburettor drip tray and drainage pipe.
	46	d) Condition, security and position of exhaust and/or waste systems and whether they are likely to contaminate or create a fire or fume hazard. Check exhaust for presence and adequacy of grease shields.
	54	e) Security (where practicable) of power steering pump and the

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
		condition of its drive system.
21	59	Move to a position behind the front axle at the nearside and repeat operation 9.
22	48, 41	Examine the condition and attachment of suspension unit linkages, sub frame (if appropriate) and the adjacent chassis and where applicable check shock absorbers for presence, security and leaks.
23	41, 43, 44	Examine the engine rear cross member and /or nearside engine/transmission mountings, sub frame (if appropriate) and oil and/or waste leaking from assemblies.
24	26, 33	Move to the offside and repeat operations 22 and 23 and if appropriate check all tachograph / speed limiter seals for presence and condition (this inspection only applies if the vehicle is legally required to be fitted with a tachograph / speed limiter).
25		Repeat operation 9 at offside and then at the nearside.
26	10, 19, 41, 42, 45, 59	At the nearside, for a short way along the vehicle examine adjacent chassis, body security and mountings, adjoining brake equipment, fuel tank and systems, spare wheel carrier, and electrical wiring (where applicable).
27	41, 57	Move to the centre and examine any chassis cross member. Also in this vicinity examine transmission shafts, flanges, universal joints, housing and shields for condition, security and clearance.
28	59, 42	Examine mechanical brake connections (ie handbrake pivot ratchet rods etc/footbrake pivot and rods/hydraulic and air valves etc). and electrical wiring.  <i>NOTE: If an additional braking device (eg retarder) is fitted it will probably be necessary at this stage of the procedure to examine the device and its components for condition, security and clearance. Also (if appropriate) it will be necessary to check for any exhaust/oil leak, security, condition and position of electrical wiring and switchgear and presence and condition of heat shields. NOTE: Depending on design etc exhaust and waste systems will probably be included in some or all of operations 21 to 28.</i>
29		Move to offside and repeat operation 26.

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
30		Repeat operation 26 to 29 ( if / as required) working along the length of the vehicle until reaching the rear suspension
31	19, 41, 42, 48	At the offside examine the condition and attachment of rear suspension units, associated linkages and sub frame to the chassis frame or axle as appropriate. If fitted also check the shock absorber for condition, security and oil leaks. Whilst still in this locality at the offside rear examine the chassis, electric wiring, body security (where applicable) and repeat operations 9 and 11.
32	41, 59, 60, 61, 57	Move across vehicle examining brake equipment, cross members, rear transmission flanges where applicable, oil and/or waste leaks.
33		Repeat operation 31 at nearside.
34	54	Move to a position behind the rear axle, repeat operation 11 and if an articulated bus with steered wheels on the trailer check the joints and components of the steering linkage for security, wear and condition
35		At the nearside rear repeat operation 9.
36	41, 48, 19	At the nearside examine the condition and attachment of rear suspension units, associated linkages and sub frame as appropriate, shock absorbers if fitted, adjacent chassis, electric wiring and body security where applicable.
37		Moving across the vehicle repeat operation 9.
38		At the offside rear repeat operations 9, 11 and 36.
39		Complete the examination of the chassis to the rear of the vehicle including electric wiring, body security and spare wheel carrier where applicable.
40	7, 8, 59	Mark one of the vehicle tyres. Guide the vehicle forward until the tyre has rotated approx 90 degrees and ask the driver to stop, apply the park brake and turn the engine off. (the Vehicle Examiner must be positioned at least in the entrance to a cross tunnel when guiding the vehicle forward). Check all parts of the tyres, wheels, brake drums/discs etc that could not be seen in operations 31 to 33.
<i>NOTE: Though the above inspection routines will be applicable on many types of vehicle layout, clearly because of</i>		

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**SUB SECTION 2: Inspection Procedures**

OP No	Insp Manual Ref	Procedure
		<p><i>variations in design, it is likely that different locations for assemblies (engine and transmission in particular) will be found in practice, eg rear engine. Therefore wherever these assemblies are located in the vehicle it will be necessary to incorporate in the inspection routines operations 19, 22, 23 and 27 as and when required.</i></p> <p>Return direct to the front of the vehicle replacing the hand lamp and any tools you have used in the inspection of the vehicle and exit the pit. Indicate on the inspection card whether any defects have been found.</p> <p>Having regard to all appropriate safety instructions, instruct driver to move his vehicle forward to the headlamp / stage C test area.</p>

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### SUB SECTION 2: Inspection Procedures

#### 4. Stage 'C'

OP No	Insp Manual Ref	Procedure
1		<p>Position the vehicle on the designated level standing area with the headlamps the recommended distance from the beamtester lens in accordance with the equipment manufacturers' instructions.</p> <p><i>NOTE: If the vehicle is being inspected in a HGVTS, position the vehicle with the headlamps between the 2 lateral floor marker lines.</i></p>
2	67	Align the beam tester in accordance with the equipment manufacturers' instruction in front of every headlamp capable of emitting a dipped beam. Identify from the headlamps or beam patterns which beam to use, and check the aim of the headlamps. Complete the checks on the headlamps by checking the number, colour, condition, operation, security and position.
3	62, 63, 66	By walking around the vehicle and checking each in turn, check the number, colour, operation and condition, position and security where appropriate of the front and rear position lamps, stop lamps, rear reflectors, direction indicators, hazard lamps, end outline marker lamps, rear fog lamps and rear registration plate lamps. Check where possible that all lamps do not flicker when lightly tapped by hand. Check that the hazard warning lamps operate with the engine stopped and the ignition switched off. On articulated vehicles check rear markings for type, security, visibility and efficiency.
4		<p>Mark the appropriate box(s) on the inspection card if any defects have been found. Instruct the driver to move forward to Stage 'D'.</p> <p>If the vehicle is of a type which cannot be tested on a roller brake tester proceed as in operation 7 of Stage 'D'.</p>

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### SUB SECTION 2: Inspection Procedures

#### 5. Stage 'D'

For details of the operation of the roller brake testing machine see Equipment Use and Maintenance Manual

**Notes;**

- 1) Staff are reminded that whilst brake testing, vehicles are liable to move without warning, therefore do not allow anyone:-
  - Near the roller bed.
  - Under a vehicle.
  - To stand immediately to the rear of the vehicle.
  - To complete any rectification work.
- 2) Exhaust extraction equipment must be used where it is practical and safe to do so.
- 3) Wheel chocks to be used when testing vehicle transmission park brakes.

OP No	Insp Manual Ref	Procedure
1		<p>Guide the vehicle forward so that the front wheels are positioned on the brake machine rollers and enter relevant details into the roller brake tester and follow the on screen instructions taking account of the following note.</p> <p><i>Note. On vehicles fitted with full power hydraulic braking systems it will be necessary to confirm compliance with test item 34 and these additional checks should be performed. When operating the brake tester to centralise the front axle DO NOT PRESS ENTER ON COMPLETION OF THE CENTRALISATION PROCESS follow the steps below.</i></p> <ol style="list-style-type: none"> <li>1. <i>With the engine stopped, deplete the brake pressure by repeated applications of the service brake until commencement of operation of the low pressure warning device.</i></li> <li>2. <i>Start both brake rollers and driving the wheels of the (first) axle ask the driver to slowly apply the service brake, on first indication of braking effort ask the driver to release the brake immediately. Ask the driver to slowly reapply the brake, on first indication of braking effort ask the driver to release the brake immediately stop the brake rollers.</i></li> <li>3. <i>Move the vehicle forward and repeat step 1 and 2 for all axles on the vehicle. On completion ask the driver to reverse the vehicle backwards until the first axle is on the brake rollers. IT IS IMPERITIVE THAT THE AREA IS KEPT CLEAR OF ALL PEOPLE AND TRAFFIC WHEN UNDERTAKING THE ABOVE. Now follow the prompts on the brake tester screen and complete the brake test of the vehicle as normal.</i></li> </ol>
2	71, 72,	Carry out a test on both front wheels of the vehicle, and note the

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### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
	73	brake force of the service, secondary and/or parking brake where applicable.  <i>NOTE: Where operation of additional brake devices is linked in with mandatory braking systems then inspections 71 72 and 73 of the manual must be applied as appropriate.</i>
3	71, 72, 73	Move the vehicle forward until the second axle wheels are positioned on the rollers of the brake machine and carry out a test of both wheels, note the brake force of the service, secondary and/or parking brake, where applicable.
4		Where applicable, repeat operation 3 for any other axle that may be fitted to the vehicle.
5		Calculate the efficiency of the service, secondary and parking brakes if using a non computerised brake tester.
6		Mark the appropriate box(s) on the inspection card if defects are noted. Guide the vehicle off the brake machine and clear of the inspection lane.  <i>NOTE: Should any vehicle require a dynamic brake test/ gradient test the completion of the inspection card in operation 6 should not be carried out until the results of these tests are known.</i>
7	71, 72, 73	If required carry out a dynamic brake test and/or a gradient test and at the completion of the tests complete the inspection card as set out in operation 6.  <i>NOTE: Where the operation of additional braking devices is separate from but affects mandatory braking, such devices should be disconnected before a vehicle is subjected to a decelerometer type brake test</i>
	71, 72	Dynamic Brake (Road) Testing  Where a dynamic test is required the procedure outlined in method of inspection 2 must be adhered to and the following points observed.  The driver should be instructed to:-  a) Hold the steering wheel normally. Under no circumstances must the driver be instructed to release his hands from the steering wheel during this test.

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<b>OP No</b>	<b>Insp Manual Ref</b>	<b>Procedure</b>
		<p>b) Attain a vehicle road speed of approximately 20 mph.</p> <p>c) Apply the brake control firmly as in a simulated emergency stop.</p> <p>Before rejecting a vehicle on the basis that “application of the brake causes the vehicle to deviate appreciably from a straight ahead path”, due regard must be paid to the effect of climatic conditions and the state of the road surface.</p>

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### SUB SECTION 2: Inspection Procedures

#### 6. Interior of body

OP No	Insp Manual Ref	Procedure
1		<p>This inspection stage may be carried out in conjunction with Stage 'A;' or may be carried out separately much will depend upon local circumstances and facilities.</p> <p>Check the vehicle documentation and establish if the vehicle is DDA compliant (noted on technical record) if so then inspection manual reference 24 will have to be checked.</p> <p><i>NOTE 1: The following procedures set out the items which are subject to inspection.</i></p> <p><i>NOTE 2: Because of the variety of body interior layouts and fittings the sequence in which the items are inspected may need to be varied.</i></p> <p><i>NOTE 3: During the inspection routine testable items should be inspected wherever they appear at face, waist and floor level whilst moving round the vehicle in a clockwise direction.</i></p>
2	16, 21 (24)	<p>Move to the passenger entrance and examine from inside the vehicle the access to and general condition and operation of doors and emergency exits and the presence and effectiveness of descriptive markings (as appropriate). Check the presence, effectiveness and operation of warning and safety devices, and that means are provided to break windows nominated as emergency exits and that any associated markings are adequate.</p> <p><i>NOTE 1: The check on some warning and safety devices may require door operation to be checked with the vehicle moving.</i></p> <p><i>NOTE 2: Where the method of opening the exit is by breaking a window not only must the means of breaking the glass be present but also the glass must be of a type which can readily be broken.</i></p>
3	21(24)	<p>Moving inside the vehicle check condition and security of floors, tread plates, stairs, gangways, steps and platforms and for vehicles with an accessibility certificate, step markings. Also check mats and the coverings of floors, gangways, steps, staircases and platforms for contamination, wear and security.</p>
4	21	<p>Check floor traps and their locking devices for condition, security and effectiveness.</p>

## Public Service Vehicle Testing

### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
		<i>NOTE: Driver/operator to open/close door traps as required.</i>
5		Move round the inside of the vehicle in a clockwise direction and examine in alternate movements at face, waist and floor level the various items set out in the following operations 6-21. During these routines examine these items whenever they appear, together with repeating operations 2-4 as and when necessary.
	24	For vehicles with an accessibility certificate check each wheelchair space for the provisions for rear facing wheelchair passengers eg padded backrest, stanchions, retractable rails, partitions and forward facing wheelchair passengers e.g wheelchair and occupant restraints. This includes signs and markings indicating the safe method of travel for a wheelchair user.
6	21	Examine roof linings and retaining mouldings for security, condition and cleanliness.
7	21	Examine parcel racks for security and condition and for danger to drivers by items displaced from the racks.
8	21(24)	Check effectiveness of passengers means of communication with the driver and air ventilation equipment.
9	21	Check that all glazed partitions, rear, roof, door and side windows are fitted where required and that they are of safety glass or glazing, secure, weatherproof and are appropriately marked.
10	21	Examine ventilators and windows that open for operation, condition and security.
11	21	Examine side panel coverings and retaining mouldings for security, condition and cleanliness.
12	21(24)	Examine all passenger seats for number, position, security, condition and cleanliness and crew seat(s) for operation and marking.
13	3	Examine all obligatory seat belts for presence, condition and security. Check also the structure of the vehicle or seat at the belt mounting point. Vehicles that have undergone a seat belt installation check will need to have all the appropriate seats checked for the above.
14	21	Examine passenger grab rails, straps, stanchions, guard rails and barrier for condition and security.

## Public Service Vehicle Testing

### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
15	21(24)	Ensure that the saloon interior, step, staircases, platforms and other facilities are illuminated. For vehicles with an accessibility certificate this will include exterior illumination for wheelchair users to board and alight in safety.
16	42	Examine batteries and their carriers for security and leaks. Check that battery cell closures are fitted and secure and that battery boxes are adequately vented.
17	42	Examine all electrical wiring and equipment for condition, position and security.
18	21	Check 'other facilities' for condition and security.  <i>NOTE: 'Other facilities' referred to in this inspection includes office, touring, catering, entertaining, heating, or other special facilities such as toilets, sinks and cooking devices and any other accessibility features in IM24 and not listed above</i>
19	21	Examine fire extinguisher for presence, type, condition and marking, and check presence, accessibility, condition and markings of first-aid equipment if carried.  <i>NOTE: A fire extinguisher or first-aid receptacle behind glass is acceptable provided they appear in good condition and the glass appears readily breakable. Glass with a shot blasted area is only 'readily breakable' if the shot blasted surface faces inwards towards the equipment.</i>
20	11	If applicable (articulated vehicles) examine the coupling for wear, security, fractures, damage and deformation. Condition and security of concertina bellows and safety chain sheathing. Turntable floor for security and condition of floor covering.  <i>NOTE: This examination is to be limited to those parts which can be seen without uncoupling or dismantling, but the operators should part bellows and lift trap doors to gain sight of articulated vehicle coupling arrangements. Traps and bellows must be restored before leaving the testing station.</i>  If during these inspection routines for the inside of the vehicle it is possible to gain access to the engine compartment, request the driver/ operator to remove any cover etc. Examine (as appropriate) for:-
	21	a) Condition of engine cover (and security when the driver/

## Public Service Vehicle Testing

### SUB SECTION 2: Inspection Procedures

OP No	Insp Manual Ref	Procedure
		operator has replaced it in position).
	42	b) Condition, security and position of all electrical wiring and equipment.
	45,33	c) Condition, security and position of fuel pipes, leaks from the fuel system and the effectiveness of carburettor drip tray and drainage pipe and if applicable check speed limiter for presence and condition.
	44	d) Oil leaking from assemblies.
	46	e) Condition, security and position of exhaust system and whether it is likely to be a fume or fire hazard. Also if applicable check for presence and adequacy of grease shields.
	54	f) Security (where practicable) of power steering pumps and the condition of drive system.
	59	g) Security and condition of any brake component, eg brake pipes and valves. Also check these items for leaks and any unloader/governor valve for excessive discharge of oil.
		<i>NOTE: Driver/operator to replace cover etc after completion of this inspection of the engine compartment.</i>
21	16, 21, 42(24)	Having inspected the interior of the vehicle at one level, move to any other level which has passenger accommodation and/or facilities (eg double deck vehicles), and repeat some or all of operations 2-19 as appropriate to staircases and other interior areas.
22		Mark the appropriate box(s) on the inspection card if defects are noted.

## Public Service Vehicle Testing

### SUB SECTION 3: Alterations to Vehicles

#### 1. General

Section 20 of the Public Passenger Vehicles Act 1981 as amended requires the holder of a PSV operator's licence to give notice of any alteration made in the structure of fixed equipment of any PSV owned or operated.

Examples of alterations which are considered notifiable are as follows:-

##### a) Chassis Frame or Structure

Any alteration which increases or decreases the front or rear overhang or wheelbase. Any other extension, deletion or alteration including cutting, welding, riveting etc which materially alters the chassis frame or structure or changes its torsional stiffness.

##### b) Steering, Suspension, Wheels and Axles (including Stub Axles and Wheel Hubs)

The fitting of steering gear, axles, hubs or road springs of a different design or load bearing capacity. Any addition, deletion or alteration which reduces the inherent strength of the above components.

##### c) Bodywork

Any alteration which materially changes the strength of the body structure or the means by which it is attached to the chassis. Any alteration which changes the design of the body, the axle loads or laden weights or affects entrances, or exits or the fitting of such items as toilets, television/video receiver, drinks dispensers etc.

##### d) Alterations to the Braking System (which affect the Braking System or Braking Performance)

They include:-

- The fitting or removal of components, such as reservoirs, servos, actuators, exhausters, compressors or retarders (including exhaust brakes).
- The addition of equipment, which is connected to any part of the braking system
- The fitting of brake drums, shoes or linings which decrease the contact area.

##### e) Other Alterations in the Structure or Fixed Equipment of the Vehicle

This includes any other alterations made in the load bearing structure or fixed equipment of the vehicle. This includes changing the type of engine ie Petrol to Diesel.

## Public Service Vehicle Testing

### SUB SECTION 3: Alterations to Vehicles

*NOTE: Normal replacements of worn, defective or damaged parts or components on a "like for like" basis are not notifiable.*

#### f) Carrying Capacity

Any alteration which changes the seating capacity or increases the number of standing passengers to be carried.

#### g) Seat belts

Any seat belts fitted after certification to vehicles first used from 1 October 2001 either on additional seats or on vehicles which are not required to be fitted with seat belts eg. those authorised for standing passengers.

#### h) Body interior

Any alteration which alters seating or standing positions or affects accessibility features eg. stanchions, bell pushes, wheelchair area including items and notices for wheelchair users

### 2. Notification of Alterations

Operators should give notification of alterations on form VTP5 which must be sent to the Public Service Vehicle Centre, Welcombe House, 91-92 The Strand, Swansea SA1 2DH. The vehicle's original records and any other relevant information can then be dispatched to the Certifying Officer for his final acceptance of the alteration.

In some cases where the alteration is minor an inspection may be considered unnecessary and the VTP5 will be filmed without it going to the certifying officer. A letter will be sent to the operator explaining this.

Where a large number of vehicles, belonging to the same operator, have had identical alterations the VTP5s may be sent to the certifying officer with a note attached advising of the number of vehicles that need to be inspected (eg. 1 in 10).

### 3. Unauthorised Vehicle Alterations at Annual Test

If an examiner suspects or has reason to believe that unauthorised alterations have been made, he should complete the test and consult the Station Manager who will decide the course of action to be taken.

The operator should be advised that there is reason to believe that the vehicle has been altered without authority, that it may be in contravention of Regulations and that the Station Manager has been notified accordingly.

A form VTP5 should be given to the operator (see paragraph 2 above). The examiner should complete form VTP 57 outlining the alteration and then issue this to the

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**Public Service Vehicle Testing****SUB SECTION 3: Alterations to Vehicles**

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operator. A copy should be sent to PSV Centre who will chase this up if no VTP5 is received from the operator.