

SPECIFICATION

PLAY DETECTORS FOR TESTING STEERING AND SUSPENSION LARGE VEHICLE TESTING (HGV AND PSV)

Issue date November 1st 2008

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1. INTRODUCTION

This specification details the recommended MINIMUM performance and constructional requirements for steering and suspension play detectors intended to be used during the statutory annual testing of large vehicles (HGV and PSV) in accordance with the Motor Vehicle (Tests) Regulations 1981, as amended and the Goods Vehicles (Plating and Testing) Regulations 1988, as amended.

The specification does not rule out additional features supplied with the equipment provided that the features are acceptable on Health and Safety grounds and do not prevent or make it more difficult to carry out the statutory test as prescribed.

Note 1: This specification is based upon the traditional steering and suspension testing equipment. Any alternative approach that does not meet the requirements specified below will be considered and assessed on its merits. Details of any alternative approach must be submitted with initial application.

2. REQUIRMENTS

General

Approval must be conducted with the play detectors installed on an under vehicle inspection facility so that a detailed assessment using an actual vehicle can be made. Vehicle or load test facilities must demonstrate weights as described.

The play detectors shall be:

- a. Robustly constructed to acceptable engineering standards and fit for purpose.
- b. Designed to operate efficiently throughout their working life with minimum maintenance intervals of 12 months for hydraulically operated equipment and 6 months if pneumatically operated.
- c. Designed to be secured to the designated underside inspection facility.
- d. Meet all Health and Safety requirements.

Technical

The play detectors shall:

- a. Be easy and safe to drive on and off.
- b. Be capable of operating without the need for jacking.
- c. Automatically return to a pre-set (central) position after use.
- d. Be capable of operating with a minimum imposed weight per wheel of 8 tonnes.
- e. Have a drive over capability per wheel of 10 tonnes.
- f. Have a plate size of no less than 850mm lateral by 650mm longitudinal.
- g. Have a movement of no less than 100mm lateral and 100mm longitudinal.
- h. Have a speed operation of no less than 30mm per second.
- i. Have the ability for the plates to operate in opposite directions simultaneously.
- j. Be capable of applying forces to the steering and suspension components of the vehicle being tested in accordance with the procedure set out in the relevant

Inspection Manual enabling the examiner to assess the specified components for excessive wear in the normal running position.

- k. Be easily operated by the examiner conducting the test by means of a portable hand held control (e.g. a wander lead or remote control device)
- l. Only be installed on a vehicle lift with a written declaration from the vehicle lift manufacturer that the hoist construction is suitable for such an installation and will not compromise Health and Safety. If, after initial declaration replacement play detectors are subsequently fitted, then a further written declaration must be made by the lift manufacturer.

Note 2: Only the lift manufacturer is authorised to make the declaration, no substitute to this will be acceptable.

Installation

The play detectors shall be installed such that:

- a. An axle with a minimum inside tyre dimension of 1300mm can be tested.
- b. An axle with a maximum outside tyre dimension of 2600mm can be tested.
- c. The height of any part of the wheel play detectors is no more than 10mm above the surface floor **unless** the play detectors are mounted in the headlight test area, in which case the play detectors must meet all of the requirements for the headlight tester standing area tolerances.

Note 3: If the wheel play detectors are installed in a test facility that is authorised to test other vehicles, they must comply with all of the requirements for play detectors in the applicable testing class.

Hand Control Unit

The hand control unit for the play detectors shall:

- a. Be designed for use from within the under vehicle inspection facility.
- b. Be robustly constructed to acceptable engineering standards and fit for purpose.
- c. Operate by low voltage (Maximum 24 volts)
- d. Be able to select lateral and longitudinal movement of the moveable plates.
- e. Have sufficient cable to operate ± 2.5 m from the play detectors centre line.
- f. Have sufficient stowage for the cable and hand control unit when not in use.

3 OPERATING INSTRUCTIONS

Operating Instructions shall be supplied with each set of play detectors.

The operating instructions shall:

- a. Be written in English
- b. Explain how to use the play detectors in accordance with the statutory test procedures.
- c. Include a technical specification for the equipment.
- d. Detail the maintenance schedule and requirements for the play detectors
- e. Specify applicable Health and Safety requirements.

3. IDENTIFICATION

The play detectors shall be marked with a durable identification as shown on the approval certificate, on the exterior, clearly identifying the make, model and serial number and which must be readily visible after the equipment has been installed.