SPECIFICATION

WHEEL TURNING PLATES
FOR TESTING
CLASS III, IV & VII VEHICLES

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1. INTRODUCTION

This Specification details the recommended MINIMUM performance and constructional requirements for Wheel Turning Plates intended to be used during the statutory annual testing of Class III, IV & VII vehicles in accordance with the Motor Vehicle (Tests) Regulations 1981, 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 MOT Test as prescribed.

2. TECHNICAL REQUIREMENTS

2.1 General

The Wheel Turning Plates shall be;

a. robustly constructed to acceptable engineering standards

b. designed to turn easily and freely throughout their working life with a minimum reasonable level of maintenance

c. designed to have a minimum operational life of five years assuming that maintenance is carried out in accordance with the manufacturer's instructions

d. designed to be secured to the designated underside inspection area, normally either a vehicle lift/hoist or the floor surface

e. safe to use

2.2 Technical

The Wheel Turning Plates shall;

a. be capable of supporting and operating freely with a maximum weight of;

750kg per wheel (for Class III & IV only)
1300kg per wheel (for Class III, IV & VII)

b. when surface mounted, be easy and safe to drive on and off

c allow the front wheels of any Class III, IV or VII vehicle to be turned with ease fully from lock to lock without relative motion occurring between the rotating plate surface and the tyre

d. have rotating plates that;

i) are freely adjustable laterally (ie inwards/outwards) to accommodate the full range of wheel track dimensions likely to occur on Class III, IV and VII vehicles. (`Track' is regarded as the distance between the points on the road surface about which the steered wheels turn.) Currently the range of tracks considered to be relevant are:

Minimum track: 1.15 metres
Maximum track: 1.75 metres

ii) have a minimum diameter of **250mm**

iii) are mounted on bearings, rolling element or fluid and shielded or sealed to minimise the ingress of dirt, water, grease, etc

iv) are captive on their bases

Note 1: Captive means that tools are required to remove any part of the Wheel Turning Plates.
Note 2: It shall be possible for a vehicle with a wheel load of 750kg / 1300kg (see Note at 2.3(c) below) to be driven off the turning plate from rest leaving the rotating plate secure and contained on its base.

2.3 Durability

a. The Wheel Turning Plates shall, without the use of the steering wheel, allow the two steered wheels to be turned by hand from lock to lock using a maximum torque of;

30Nm with a load of **750kg / 1300kg** on each wheel

b. The Wheel Turning Plates shall operate correctly after being cycled through an arc of;

90º for **20,000** cycles with a wheel load of **750kg / 1300kg**

c. After the above 20,000 cycles, the torque required to allow the steered wheels to be turned from lock to lock by hand, shall be no greater than;

37.5Nm with a load of **750kg / 1300kg** on each wheel

Note: 750kg is applicable for Wheel Turning Plates intended for use only for Class III & IV vehicles.
1300kg is applicable for Wheel Turning Plates intended for use on Class III, IV & VII vehicles.

3. OPERATING INSTRUCTIONS

Operating instructions shall be supplied with each set of Wheel Turning Plates.

The operating instructions shall;

a. be written in English

b. explain how to install the Wheel Turning Plates

c. explain how to use the Wheel Turning Plates

d. detail the maintenance necessary for the Wheel Turning Plates

4. IDENTIFICATION

The Wheel Turning Plates shall be marked with a durable identification on the exterior showing the make and model number.