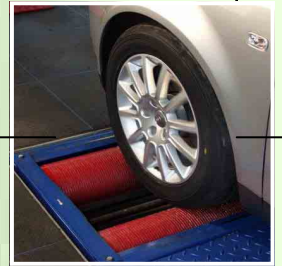


CITA

COMITÉ INTERNATIONAL DE L'INSPECTION TECHNIQUE AUTOMOBILE
INTERNATIONAL MOTOR VEHICLE INSPECTION COMMITTEE
INTERNATIONALE VEREINIGUNG FÜR DIE TECHNISCHE PRÜFUNG VON KRAFTFAHRZEUGEN



Recommendation no. 7 Inspection station equipment



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INTERNATIONAL MOTOR VEHICLE INSPECTION COMMITTEE

Recommendation no. 7

Inspection station equipment

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RECOMMENDATION N° 7

INSPECTION STATION EQUIPMENT

1. STATIONARY EQUIPMENT
2. PORTABLE INSPECTION APPARATUS

APPENDIX 1

1. Building
2. Areas for parking and special tests

APPENDIX 2 Example of a disposition of the testing equipment

APPENDIX 3 Minimum equipment recommended for a compulsory periodic inspection in the developing countries

This document lists the recommended equipment required for the periodic inspection of vehicles as detailed in CITA Recommendations n° 1 and n° 2.

Recommendations on the layout of inspection station buildings are also given.

1. STATIONARY APPARATUS

1.1. For passenger cars and other light vehicles

- 1.1.1. Roller brake testing machine
- 1.1.2. Pit or platform hoist, both equipped with movable vehicle jack and artificial lighting
- 1.1.3. Hand lamps to enable careful visual inspection of under-vehicle components
- 1.1.4. Headlight tester, preferably on rails, with suitable even standing area for the vehicle
- 1.1.5. Wheel alignment tester (optional)
- 1.1.6. Suspension tester (optional)
- 1.1.7. Wheel spinner (optional)
- 1.1.8. Speedometer test device (optional)
- 1.1.9. Open air inclined plane to check the parking brake (optional)
- 1.1.10. Play detector (check wear) (optional)

1.2. For heavy vehicles

In principle the same apparatus as for light vehicles is required, but it should suit the weights and dimensions of heavy vehicles. The roller brake tester for heavy vehicles should have slave instruments to enable the inspector to check trailer brakes while operating the brakes from the driver's seat. Means for recording brake force and air pressure are optional.

- 1.2.1. Equipment for weighing vehicles (optional)

2. PORTABLE INSPECTION APPARATUS

- 2.1. Opacimeter - carbon-monoxide tester (*)
- 2.2. Indicating or recording decelerometer
- 2.3. Vehicle noise meter (sound level meter) and tachometer (*)
- 2.4. Trailer coupling gauge
- 2.5. Accurate manometer to check air pressure brakes
- 2.6. Special switch plug box to check trailer light connections
- 2.7. Tyre tread depth gauge
- 2.8. Measuring-tape
- 2.9. Stopwatch
- 2.10. Response-time tester for trailers equipped with air pressure brakes (optional)
- 2.11. Pedal force meter
- 2.12. Lux-meter (optional)

(*) If required in the Regulations.

N.B. : This document will be subsequently re-examined to be completed regarding the automatisisation of inspection operations.

APPENDIX n° 1**1. BUILDINGS**

- 1.1. Unless climatic conditions are very favourable the areas where the inspections are carried out should be completely enclosed in buildings. Roof over the areas is always required.
- 1.2. Buildings should have a "drive-trough" lay-out (entry and exit through different doors/openings).
- 1.3. The location of the equipment within the areas depends on the order in which the inspections are carried out, the inspection methods and the organization of the work (e.g. whether the inspections are carried out by several inspectors in stages or by one inspector per vehicle). An example is given in Appendix n° 2.

Note that in addition to a straight "inspection lane" several other lay-outs are possible.

- 1.4. The dimensions of the inspection areas are also depending on the factors mentioned in 1.3. The length is further influenced by e.g. if it is considered advisable to be able to inspect the whole of a long vehicle combination inside the building (with closed doors). Therefore no recommendation for length is given.

Recommended minimum width of the area for inspection of

- | | |
|---|-------------------------------|
| - passenger cars and other light vehicles | 4 m (including the side walk) |
| - heavy vehicles | 5 m (including the side walk) |

- 1.5. A free area of approximately 3 x 4 m should be available for the inspection of motorcycles (optional).

2. AREAS FOR PARKING AND SPECIAL TESTS

- 2.1. Close to the inspection buildings suitable parking areas should be available for vehicles waiting to be inspected, visitors etc.
- 2.2. A sufficiently large area with a hard and even surface should be available for the checking of the turning circle, when this is a requirement in the Regulations.
- 2.3. An appropriate area with a hard and even surface should be available for the checking of vehicle noise, when this is a requirement in the Regulations.
- 2.4. An appropriate area should be available for the checking of radio interference suppression, when this is a requirement in the Regulations.

APPENDIX n° 2

EXAMPLE OF THE DISPOSITION OF TESTING EQUIPMENT

Reception - Identification of the vehicle

Measure of CO/HC opacity of Diesel smoke

(Roller) brake tester

Headlight tester

Front wheel alignment tester

Suspension tester

Visual inspection: inspection pit or platform hoist

Jack

Play detector (check wear)

Wheel spinner

Delivery of the inspection report

APPENDIX n° 3**MINIMUM EQUIPMENT RECOMMENDED FOR A COMPULSORY PERIODIC INSPECTION IN THE DEVELOPPING COUNTRIES**

1. For cities and their surroundings, where the concentration of vehicles in use is sufficient to build small inspection stations, the equipment and the required infrastructure are already described.
- 1.1. For a road safety inspection (roadworthiness) only, the absolute necessary equipment will be:
 - an inspection pit equipped with a movable jack and a set of tools (including crow bars of different shapes and sizes)
 - a roller brake tester for both light and heavy vehicles
 - an apparatus to check headlight aiming, and
 - a portable decelerometer.
- 1.2. When, in addition to road safety, environmental factors are included in the inspection, the following devices should be included, as required in the Regulations: CO-meter, diesel smoke meter, noise level meter and tachometer.

2. For outside the above-mentioned areas, where the concentration of vehicles to be checked is insufficient to justify permanent inspection stations, the following systems can be considered.

- 2.1. Mobile inspection stations

A mobile inspection station (a specially designed heavy lorry/trailer and/or portable equipment to be transported on a lorry or trailer) should be equipped with the same inspection devices as the ones used in the permanent inspection stations.

Moreover, it should contain the necessary office facilities for a decentralized inspection system and might possibly also serve as shelter for the staff over night.

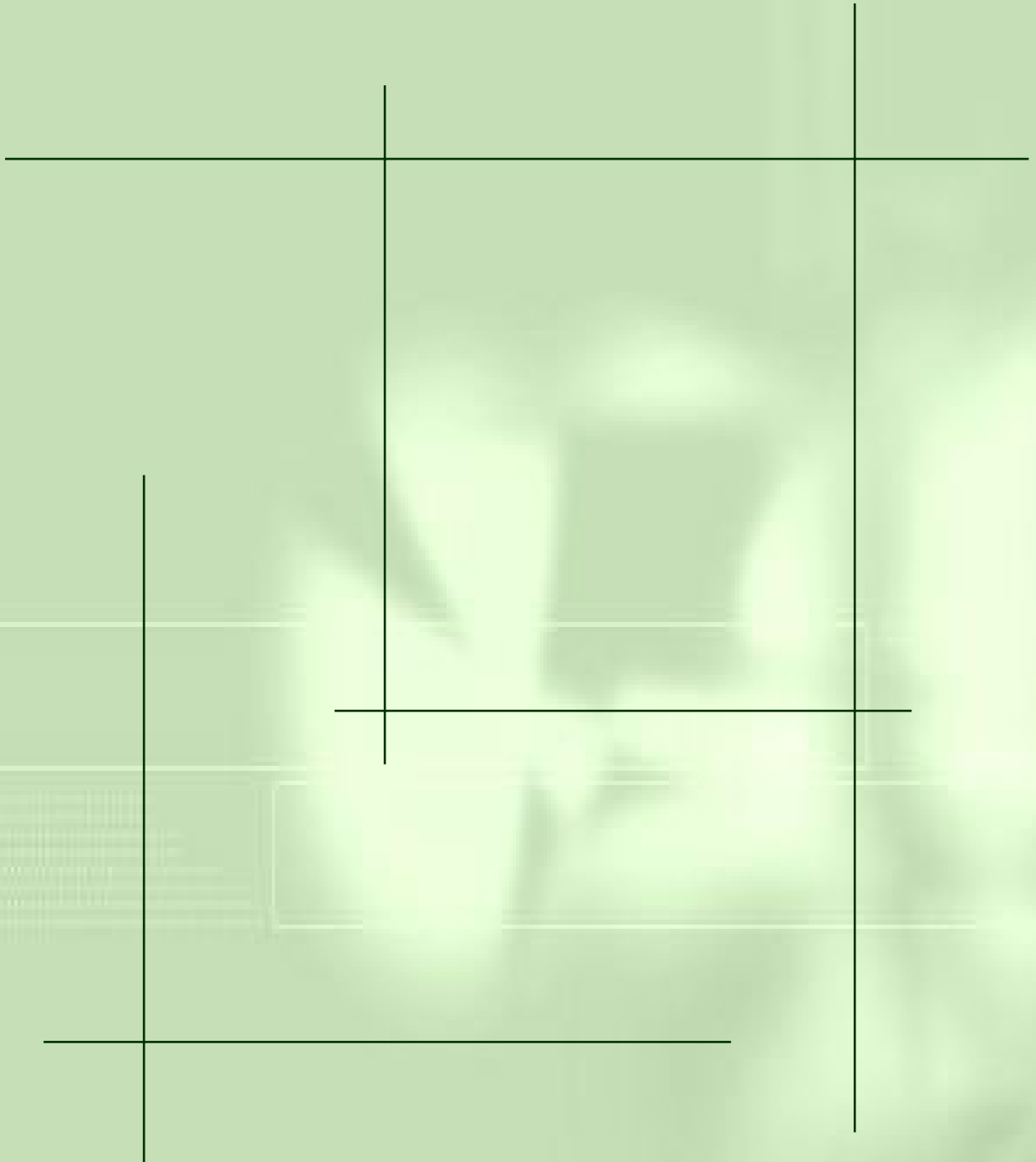
The mobile inspection station should be moved from one appointment place to another, where the local vehicles to be checked are summoned at precise dates, or be erected at each appointment place for a period of time, previously announced to the local vehicle owners. The stations may either be connected to the local supply net for electricity or carry their own diesel power generators.

- 2.2. Travelling inspection teams - provisional inspection sites

Inspection teams equipped with appropriate apparatus adapted to the category of vehicles to be checked, such as jacks of sufficient capacity and a portable decelerometer, may travel from one appointment place to another, where the local vehicles to be checked are summoned at precise dates.

The inspection team should have at its disposal, at every appointment place, a hard, even surface sheltered by a roofing (or a local garage or service station placed temporarily at their disposal).

Note: Axle stands should be available in order to avoid any accidents of persons working under the vehicles.



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