

**DIRECTIVE 2009/40/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**of 6 May 2009**

**on roadworthiness tests for motor vehicles and their trailers**

**(Recast)**

**(Text with EEA relevance)**

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 71 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee <sup>(1)</sup>,

Having consulted the Committee of the Regions,

Acting in accordance with the procedure laid down in Article 251 of the Treaty <sup>(2)</sup>,

Whereas:

- (1) Council Directive 96/96/EC of 20 December 1996 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehicles and their trailers <sup>(3)</sup> has been substantially amended several times <sup>(4)</sup>. Since further amendments are to be made, it should be recast in the interests of clarity.
- (2) Within the framework of the common transport policy, certain road traffic within the Community should operate under the most favourable circumstances as regards both safety and competitive conditions applying to carriers in the Member States.
- (3) The growth of road traffic and the resultant increase in danger and nuisances present all Member States with safety problems of a similar nature and seriousness.
- (4) Testing during the lifecycle of a vehicle should be relatively simple, quick and inexpensive.
- (5) The minimum Community standards and methods to be used for testing the items listed in this Directive should therefore be defined in separate Directives.

(6) It is necessary to adapt rapidly to technical progress the standards and methods laid down in the separate Directives and, in order to facilitate implementation of the measures required for this purpose, to establish a procedure for close cooperation between the Member States and the Commission within a committee on the adaptation to technical progress of the Directive on roadworthiness tests for motor vehicles and their trailers.

(7) With regard to braking systems it is difficult to set values for such matters as air pressure settings and build-up times, given the variance in the equipment and methods within the Community.

(8) It is recognised by all concerned with vehicle testing that the method of testing and, in particular, whether the vehicle is tested in a laden, part-laden or unladen condition, can influence the degree of confidence testers have as to the roadworthiness of the braking system.

(9) The prescription of brake force reference values for various laden conditions for each vehicle model should help restore that confidence. This Directive should enable testing under this regime as an alternative to testing against minimum performance values for each vehicle category.

(10) With regard to braking systems the scope of this Directive should relate in the main to vehicles which have been granted component type-approval in accordance with Council Directive 71/320/EEC of 26 July 1971 on the approximation of the laws of the Member States relating to the braking devices of certain categories of motor vehicles and their trailers <sup>(5)</sup> although it is recognised that certain types of vehicle have been granted such approval in accordance with national standards which may differ from the requirements of that Directive.

(11) Member States may extend the scope of the braking test to include vehicles or test items outside the scope of this Directive.

(12) Member States may make the braking test more stringent or increase the frequency of testing.

<sup>(1)</sup> OJ C 224, 30.8.2008, p. 66.

<sup>(2)</sup> Opinion of the European Parliament of 23 September 2008 (not yet published in the Official Journal) and Council Decision of 30 March 2009.

<sup>(3)</sup> OJ L 46, 17.2.1997, p. 1.

<sup>(4)</sup> See Annex III, Part A.

<sup>(5)</sup> OJ L 202, 6.9.1971, p. 37.

- (13) This Directive is intended to maintain emissions at a low level throughout the useful life of a vehicle by means of regular exhaust emission tests and to ensure that vehicles which are major polluters are withdrawn from service until they are brought to a proper state of maintenance.
- (14) Bad tuning and inadequate maintenance are detrimental not only to the engine but also to the environment since they cause increased pollution and fuel consumption. It is important that environment-friendly transport be developed.
- (15) In the case of compression-ignition (diesel) engines measurement of the opacity of the exhaust fumes is deemed to be an adequate indicator of the condition of the vehicle's state of maintenance, with regard to emissions.
- (16) For positive-ignition (petrol) engines, measurement of carbon monoxide emissions from the exhaust pipe when the engine is idling is deemed to be an adequate indicator of the vehicle's state of maintenance, with regard to emissions.
- (17) The failure rate in exhaust-emission tests for vehicles which have not been regularly maintained may well be high.
- (18) In the case of petrol-engined vehicles for which the type-approval standards specify that they must be equipped with advanced emission control systems such as three-way catalytic converters which are lambda-probe controlled, the regular emission test standards must be more stringent than for conventional vehicles.
- (19) Directive 98/69/EC of the European Parliament and of the Council of 13 October 1998 relating to measures to be taken against air pollution by emissions from motor vehicles<sup>(1)</sup> requires the introduction, from 2000, of on-board diagnostic (OBD) systems for petrol-driven cars and light commercial vehicles to monitor the functioning of the vehicle's emission control system in service. Similarly, from 2003, OBD systems are required also for new diesel vehicles.
- (20) Member States may, if appropriate, exclude from the scope of this Directive certain vehicles that are considered to be of historic interest. They may also establish their own testing standards for such vehicles. However, such a right must not lead to the application of stricter standards than those which the vehicles concerned were originally designed to meet.
- (21) Simple, common diagnostic systems are available that can be used by testing organisations to test the vast majority of the speed limiters equipped. For those vehicles that are not accessible by such readily available diagnostic tools, the authorities will need to either make use of available equipment from the original vehicle manufacturer or provide for the acceptance of appropriate test certification from the vehicle manufacturer or its franchise organisation.
- (22) Periodic verification of the correct functioning of the speed limiter should be facilitated for the vehicles that are fitted with the new recording equipment (digital tachograph) in accordance with Council Regulation (EC) No 2135/98 of 24 September 1998 amending Regulation (EEC) No 3821/85 on recording equipment in road transport and Directive 88/599/EEC concerning the application of Regulations (EEC) No 3820/85 and (EEC) No 3821/85<sup>(2)</sup>. Since the year 2003, new vehicles are fitted with such equipment.
- (23) Technical requirements relating to taxis and ambulances are similar to those for private cars. The items to be checked may therefore be similar, although the frequency of tests is different.
- (24) Each Member State must ensure, within its own area of jurisdiction, that roadworthiness tests are conducted methodically and to a high standard.
- (25) The Commission should verify the practical application of this Directive.
- (26) Since the objectives of the proposed action, namely to harmonise the rules on roadworthiness tests, to prevent distortion of competition as between road hauliers and to guarantee that vehicles are properly checked and maintained, cannot be achieved by the Member States acting alone and can therefore, by reason of the scale of the action, be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.
- (27) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission<sup>(3)</sup>.

<sup>(1)</sup> OJ L 350, 28.12.1998, p. 1.

<sup>(2)</sup> OJ L 274, 9.10.1998, p. 1.

<sup>(3)</sup> OJ L 184, 17.7.1999, p. 23.

- (28) In particular, the Commission should be empowered to define certain minimum standards and methods for testing and to adapt them to technical progress. Since those measures are of general scope and are designed to amend non-essential elements of this Directive by supplementing it with new non-essential elements, they must be adopted in accordance with the regulatory procedure with scrutiny provided for in Article 5a of Decision 1999/468/EC.
- (29) This Directive should be without prejudice to the obligations of the Member States relating to the time limits for transposition into national law of the Directives set out in Annex III, Part B,

HAVE ADOPTED THIS DIRECTIVE:

#### CHAPTER I

##### GENERAL PROVISIONS

###### *Article 1*

1. In each Member State, motor vehicles registered in that State and their trailers and semi-trailers shall undergo periodic roadworthiness tests in accordance with this Directive.

2. The categories of vehicles to be tested, the frequency of the roadworthiness tests and the items which must be tested are listed in Annexes I and II.

###### *Article 2*

The roadworthiness tests provided for in this Directive shall be carried out by the Member State, or by a public body entrusted with the task by the State or by bodies or establishments designated and directly supervised by the State, including duly authorised private bodies. In particular, where establishments designated as vehicle testing centres also perform motor vehicle repairs, Member States shall make every effort to ensure the objectivity and high quality of the vehicle testing.

###### *Article 3*

1. Member States shall take such measures as they deem necessary to make it possible to prove that a vehicle has passed a roadworthiness test complying with at least the provisions of this Directive.

These measures shall be notified to the other Member States and to the Commission.

2. Each Member State shall, on the same basis as if it had itself issued the proof, recognise the proof issued in another Member State showing that a motor vehicle registered on the

territory of that other State, together with its trailer or semi-trailer, has passed a roadworthiness test complying with at least the provisions of this Directive.

3. Member States shall apply suitable procedures to establish, as far as practicable, that the brake performance of the vehicles registered in their territory meets the requirements specified in this Directive.

#### CHAPTER II

##### EXCEPTIONS

###### *Article 4*

1. Member States shall have the right to exclude from the scope of this Directive vehicles belonging to the armed forces, the forces of law and order and the fire service.

2. Member States may, after consulting the Commission, exclude from the scope of this Directive, or subject to special provisions, certain vehicles operated or used in exceptional conditions and vehicles which are never, or hardly ever, used on public highways, including vehicles of historic interest which were manufactured before 1 January 1960 or which are temporarily withdrawn from circulation.

3. Member States may, after consulting the Commission, set their own testing standards for vehicles considered to be of historic interest.

###### *Article 5*

Notwithstanding the provisions of Annexes I and II, Member States may:

- (a) bring forward the date for the first compulsory roadworthiness test and, where appropriate, require the vehicle to be submitted for testing prior to registration;
- (b) shorten the interval between two successive compulsory tests;
- (c) make the testing of optional equipment compulsory;
- (d) increase the number of items to be tested;
- (e) extend the periodic test requirement to other categories of vehicles;
- (f) prescribe special additional tests;
- (g) require for vehicles registered on their territory higher minimum standards for braking efficiency than those specified in Annex II and include a test on vehicles with heavier loads, provided such requirements do not exceed those of the vehicle's original type-approval.

## CHAPTER III

## FINAL PROVISIONS

## Article 6

1. The Commission shall adopt the separate Directives necessary to define the minimum standards and methods for testing the items listed in Annex II, as well as any amendments necessary to adapt those standards and methods to technical progress.

2. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 7(2).

## Article 7

1. The Commission shall be assisted by a committee on the adaptation to technical progress of the Directive on road-worthiness tests for motor vehicles and their trailers.

2. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

## Article 8

No later than three years after the introduction of regular testing of speed limitation devices, the Commission shall examine whether, on the basis of the experience gained, the tests laid down are sufficient to detect defective or manipulated speed limitation devices or whether the rules need to be amended.

## Article 9

Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field governed by this Directive.

## Article 10

Directive 96/96/EC, as amended by the acts listed in Annex III, Part A, is repealed, without prejudice to the obligations of the Member States relating to the time limits for transposition into national law of the Directives set out in Annex III, Part B.

References to the repealed Directive shall be construed as references to this Directive and shall be read in accordance with the correlation table in Annex IV.

## Article 11

This Directive shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

## Article 12

This Directive is addressed to the Member States.

Done at Strasbourg, 6 May 2009.

For the European Parliament  
The President  
H.-G. PÖTTERING

For the Council  
The President  
J. KOHOUT

## ANNEX I

**CATEGORIES OF VEHICLES SUBJECT TO ROADWORTHINESS TESTS AND FREQUENCY OF THE TESTS**

Categories of vehicle	Frequency of tests
1. Motor vehicles used for the carriage of passengers and with more than eight seats, excluding the driver's seat	One year after the date on which the vehicle was first used, and thereafter annually
2. Motor vehicles used for the carriage of goods and having a maximum permissible mass exceeding 3 500 kg	One year after the date on which the vehicle was first used, and thereafter annually
3. Trailers and semi-trailers with a maximum permissible mass exceeding 3 500 kg	One year after the date on which the vehicle was first used, and thereafter annually
4. Taxis, ambulances	One year after the date on which the vehicle was first used, and thereafter annually
5. Motor vehicles having at least four wheels, normally used for the road carriage of goods and with a maximum permissible mass not exceeding 3 500 kg, excluding agricultural tractors and machinery	Four years after the date on which the vehicle was first used, and thereafter every two years
6. Motor vehicles having at least four wheels, used for the carriage of passengers and with not more than eight seats excluding the driver's seat	Four years after the date on which the vehicle was first used, and thereafter every two years

## ANNEX II

## ITEMS TO BE COMPULSORILY TESTED

The test must cover at least the items listed below, provided that these are related to the obligatory equipment of the vehicle being tested in the Member State concerned.

The tests covered by this Annex may be carried out visually without disassembly of vehicle parts.

Where the vehicle is found to be defective with regard to the test items below, the competent authorities in the Member States must adopt a procedure for setting the conditions under which the vehicle may be used before passing another roadworthiness test.

## VEHICLES IN CATEGORIES 1, 2, 3, 4, 5 AND 6

## 1. Braking systems

The following items are to be included in the roadworthiness test of vehicle braking systems. The test results achieved during the checks on the braking systems must be equivalent as far as is practicable to the technical requirements of Directive 71/320/EEC.

<i>Items to be checked/tested</i>	<i>Reasons for failure</i>
1.1. Mechanical condition and operation	
1.1.1. Footbrake pedal pivot	<ul style="list-style-type: none"> <li>— too tight</li> <li>— bearing worn</li> <li>— excessive wear/play</li> </ul>
1.1.2. Pedal condition and travel of the brake operating device	<ul style="list-style-type: none"> <li>— excessive or insufficient reserve travel</li> <li>— brake control not releasing correctly</li> <li>— anti-slip provision on brake pedal missing, loose or worn smooth</li> </ul>
1.1.3. Vacuum pump or compressor and reservoirs	<ul style="list-style-type: none"> <li>— time taken to build up air pressure/vacuum for the effective operation of the brakes is excessive</li> <li>— insufficient air pressure/vacuum to give assistance for at least two applications of the brake after the warning device has operated (or gauge shows unsafe reading)</li> <li>— air leak causing a noticeable drop in pressure or audible air leaks</li> </ul>
1.1.4. Low pressure warning indicator or gauge	<ul style="list-style-type: none"> <li>— malfunctioning or defective low pressure indicator/air pressure gauge</li> </ul>
1.1.5. Hand-operated brake control valve	<ul style="list-style-type: none"> <li>— cracked or damaged control, excessive wear</li> <li>— malfunction of control valve</li> <li>— control insecure on valve spindle or valve unit insecure</li> <li>— connections loose or leak in system</li> <li>— unsatisfactory operation</li> </ul>
1.1.6. Parking brake, lever control, parking brake ratchet	<ul style="list-style-type: none"> <li>— parking brake ratchet not holding correctly</li> <li>— excessive wear at lever pivot or ratchet mechanism</li> <li>— excessive movement of lever indicating incorrect adjustment</li> </ul>
1.1.7. Braking valves (foot valves, unloaders, governors, etc.)	<ul style="list-style-type: none"> <li>— damaged, excessive air leakage</li> <li>— excessive discharge of oil from compressor</li> <li>— insecure/inadequate mounting</li> <li>— discharge of hydraulic brake fluid</li> </ul>
1.1.8. Couplings for trailer brakes	<ul style="list-style-type: none"> <li>— defective isolation taps or self-sealing valve</li> <li>— insecure/inadequate mounting</li> <li>— excessive leaks</li> </ul>

<i>Items to be checked/tested</i>	<i>Reasons for failure</i>
1.1.9. Energy storage reservoir pressure tank	<ul style="list-style-type: none"> <li>— damaged, corroded, leaking</li> <li>— drain device inoperative</li> <li>— insecure/inadequate mounting</li> </ul>
1.1.10. Brake servo units, master cylinder (hydraulic systems)	<ul style="list-style-type: none"> <li>— servo unit is defective or ineffective</li> <li>— master cylinder defective or leaking</li> <li>— master cylinder insecure</li> <li>— insufficient quantity of brake fluid</li> <li>— master cylinder reservoir cap missing</li> <li>— brake fluid warning lamp illuminated or defective</li> <li>— incorrect functioning of brake fluid level warning device</li> </ul>
1.1.11. Rigid brake pipes	<ul style="list-style-type: none"> <li>— risk of failure or fracture</li> <li>— leaks from pipes or connections to coupling</li> <li>— damaged or excessively corroded</li> <li>— misplaced</li> </ul>
1.1.12. Flexible brake hoses	<ul style="list-style-type: none"> <li>— risk of failure or fracture</li> <li>— damaged, chafing, brake hoses too short, twisted</li> <li>— leaks from hoses or couplings</li> <li>— hose bulging under pressure</li> <li>— porosity</li> </ul>
1.1.13. Brake coverings (lining pads)	<ul style="list-style-type: none"> <li>— excessive wear</li> <li>— contaminated (oil, grease, etc.)</li> </ul>
1.1.14. Brake drums, brake discs	<ul style="list-style-type: none"> <li>— excessive wear, excessive scoring, cracks, insecure or fractured</li> <li>— contaminated (oil, grease, etc.)</li> <li>— backplate insecure</li> </ul>
1.1.15. Brake cables, rods, levers linkage	<ul style="list-style-type: none"> <li>— cables damaged, knotted</li> <li>— excessively worn or corroded</li> <li>— cable or rod joint insecure</li> <li>— cable guide defective</li> <li>— any restriction to free movement of the braking system</li> <li>— any abnormal movement of levers/rods/linkage indicating maladjustment or excessive wear</li> </ul>
1.1.16. Brake actuators (including spring brakes or hydraulic wheel cylinders)	<ul style="list-style-type: none"> <li>— cracked or damaged</li> <li>— leaking</li> <li>— insecure/inadequate mounting</li> <li>— excessively corroded</li> <li>— excessive travel of operating piston or diaphragm mechanism</li> <li>— dust protection cover missing or excessively damaged</li> </ul>
1.1.17. Load sensing valve	<ul style="list-style-type: none"> <li>— defective linkage</li> <li>— incorrect adjustment</li> <li>— seized, not working</li> <li>— missing</li> </ul>
1.1.18. Automatic slack adjusters indicating	<ul style="list-style-type: none"> <li>— seized or abnormal movement, excessive wear or wrong adjustment</li> <li>— defective</li> </ul>

<i>Items to be checked/tested</i>	<i>Reasons for failure</i>
1.1.19. Retarder system (where fitted or required)	<ul style="list-style-type: none"> <li>— insecure connectors or mountings</li> <li>— defective</li> </ul>
1.2. Service brake performance and efficiency	
1.2.1. Performance (progressively increased to maximum effort)	<ul style="list-style-type: none"> <li>— inadequate braking effort on one or more wheels</li> <li>— braking effort from any wheel is less than 70 % of the highest recorded effort from another wheel on the same axle. In the case of brake testing on the road, the vehicle's deviation from a straight line is excessive</li> <li>— no gradual variation of brake effort (grabbing)</li> <li>— abnormal time lag in brake operation at any wheel</li> <li>— excessive fluctuation of brake effort due to distorted discs or oval drums</li> </ul>
1.2.2. Efficiency	<ul style="list-style-type: none"> <li>— a braking ratio which relates to the maximum authorised mass or, in the case of semi-trailers, to the sum of the authorised axle loads where practicable, less than the following: minimum braking efficiency: category 1: 50 % <sup>(1)</sup> category 2: 43 % <sup>(2)</sup> category 3: 40 % <sup>(3)</sup> category 4: 50 % category 5: 45 % <sup>(4)</sup> category 6: 50 %</li> <li>— or a braking effort less than the reference values if specified by the vehicle manufacturer for the vehicle axle <sup>(5)</sup></li> </ul>
1.3. Secondary (emergency) brake performance and efficiency (if met by separate system)	
1.3.1. Performance	<ul style="list-style-type: none"> <li>— brake inoperative on one side</li> <li>— braking effort from any wheel is less than 70 % of the highest recorded effort from another wheel on the same axle</li> <li>— no gradual variation of efficiency (grabbing)</li> <li>— automatic brake system not working in the case of trailers</li> </ul>
1.3.2. Efficiency	<ul style="list-style-type: none"> <li>— for all vehicle categories, a braking ratio less than 50 % <sup>(6)</sup> of the service brake performance defined in 1.2.2 in relation to the maximum authorised mass or, in the case of semi-trailers, to the sum of the authorised axle loads</li> </ul>
1.4. Parking brake performance and efficiency	
1.4.1. Performance	<ul style="list-style-type: none"> <li>— brake inoperative on one side</li> </ul>
1.4.2. Efficiency	<ul style="list-style-type: none"> <li>— for all vehicle categories, a braking ratio less than 16 % in relation to the maximum authorised mass, or, for motor vehicles, less than 12 % in relation to the maximum authorised combination mass of the vehicle, whichever is greater</li> </ul>
1.5. Retarder or exhaust brake system performance	<ul style="list-style-type: none"> <li>— no gradual variation of efficiency (retarder)</li> <li>— defective</li> </ul>

<i>Items to be checked/tested</i>	<i>Reasons for failure</i>
1.6. Anti-lock braking	— malfunction of the anti-lock warning device — defective

(<sup>1</sup>) 48 % for category 1 vehicles not fitted with ABS, or type-approved before 1 October 1991 (date of prohibition of first putting into circulation without EC component type-approval) (Directive 71/320/EEC).

(<sup>2</sup>) 45 % for vehicles registered after 1988 or from the date of application of Directive 71/320/EEC, under Member States' national legislation, whichever is the later.

(<sup>3</sup>) 43 % for semi-trailers and draw-bar trailers registered after 1988 or from the date of application of Directive 71/320/EEC, under Member States' national legislation, whichever is the later.

(<sup>4</sup>) 50 % for category 5 vehicles registered after 1988 or from the date of application of Directive 71/320/EEC, under Member States' national legislation, whichever is the later.

(<sup>5</sup>) The reference value for the vehicle axle is the braking effort (expressed in newtons) necessary to achieve this minimum prescribed braking force at the particular weight that the vehicle is presented.

(<sup>6</sup>) For category 2 and 5 vehicles the minimum secondary brake performance must be 2,2 m/s<sup>2</sup> (as the secondary brake performance was not covered by Directive 71/320/EEC).

VEHICLES IN CATEGORIES 1, 2 AND 3	VEHICLES IN CATEGORIES 4, 5 AND 6
<b>2. Steering and steering wheel</b>	<b>2. Steering</b>
2.1. Mechanical condition	2.1. Mechanical condition
2.2. Steering wheel	2.2. Steering play
2.3. Steering play	2.3. Steering system attachment
2.4. Wheel bearings	
<b>3. Visibility</b>	<b>3. Visibility</b>
3.1. Field of vision	3.1. Field of vision
3.2. Condition of glass	3.2. Condition of glass
3.3. Rear-view mirrors	3.3. Rear-view mirrors
3.4. Windscreen wipers	3.4. Windscreen wipers
3.5. Screen washers	3.5. Screen washers
<b>4. Lamps, reflectors and electrical equipment</b>	<b>4. Lighting equipment</b>
4.1. Main and dipped-beam headlamps	4.1. Main and dipped-beam headlamps
4.1.1. Condition and operation	4.1.1. Condition and operation
4.1.2. Alignment	4.1.2. Alignment
4.1.3. Switches	4.1.3. Switches
4.1.4. Visual efficiency	
4.2. Side lamps and end-outline marker lamps	4.2. Condition and operation, condition of lenses, colour and visual efficiency of:

VEHICLES IN CATEGORIES 1, 2 AND 3	VEHICLES IN CATEGORIES 4, 5 AND 6
4.2.1. Condition and operation  4.2.2. Colour and visual efficiency	4.2.1. Side and rear lamps  4.2.2. Stop lamps  4.2.3. Direction-indicator lamps  4.2.4. Reversing lamps  4.2.5. Fog lamps  4.2.6. Rear registration plate lamps  4.2.7. Retro reflectors  4.2.8. Hazard warning lamps
4.3. Stop lamps  4.3.1. Condition and operation  4.3.2. Colour and visual efficiency	
4.4. Direction-indicator lamps  4.4.1. Condition and operation  4.4.2. Colour and visual efficiency  4.4.3. Switches  4.4.4. Flashing frequency	
4.5. Front and rear fog lamps  4.5.1. Position  4.5.2. Condition and operation  4.5.3. Colour and visual efficiency	
4.6. Reversing lamps  4.6.1. Condition and operation  4.6.2. Colour and visual efficiency	

VEHICLES IN CATEGORIES 1, 2 AND 3	VEHICLES IN CATEGORIES 4, 5 AND 6
4.7. Rear registration plate lamp	
4.8. Retro reflectors — condition and colour	
4.9. Telltales	
4.10. Electrical connections between drawing vehicle and trailer or semi-trailer	
4.11. Electrical wiring	
<b>5. Axles, wheels, tyres, suspension</b>	<b>5. Axles, wheels, tyres, suspension</b>
5.1. Axles	5.1. Axles
5.2. Wheels and tyres	5.2. Wheels and tyres
5.3. Suspension	5.3. Suspension
<b>6. Chassis and chassis attachments</b>	<b>6. Chassis and chassis attachments</b>
6.1. Chassis or frame and attachments	6.1. Chassis or frame and attachments
6.1.1. General condition	6.1.1. General condition
6.1.2. Exhaust pipes and silencers	6.1.2. Exhaust pipes and silencers
6.1.3. Fuel tank or pipes	6.1.3. Fuel tank or pipes
6.1.4. Geometric properties and condition of rear protective device, heavy lorries	6.1.4. Spare-wheel carrier
6.1.5. Spare-wheel carrier	6.1.5. Security of coupling mechanism (if fitted)
6.1.6. Coupling mechanism on drawing vehicles, trailers and semi-trailers	
6.2. Cab and bodywork	6.2. Bodywork
6.2.1. General condition	6.2.1. Structural condition
6.2.2. Mounting	6.2.2. Doors and locks
6.2.3. Doors and locks	
6.2.4. Floor	
6.2.5. Driver's seat	
6.2.6. Running boards	
<b>7. Other equipment</b>	<b>7. Other equipment</b>
7.1. Safety belts	7.1. Mounting of driver's seat
7.2. Fire extinguisher	7.2. Mounting of battery
7.3. Locks and anti-theft device	7.3. Audible warning device
7.4. Warning triangle	7.4. Warning triangle
7.5. First-aid kit	7.5. Safety belts
7.5.1. Security of mountings	7.5.2. Condition of belts
7.5.3. Operation	
7.6. Wheel chock(s)	
7.7. Audible warning device	

VEHICLES IN CATEGORIES 1, 2 AND 3	VEHICLES IN CATEGORIES 4, 5 AND 6
7.8. Speedometer	
7.9. Tachograph (presence of, and integrity of seals) <ul style="list-style-type: none"> <li>— check validity of tachograph plate if required by Regulation (EEC) No 3821/85 <sup>(1)</sup></li> <li>— check, if in doubt, whether the nominal circumference or size of tyre matches the data given on the tachograph plate</li> <li>— where practical, check that the seals of the tachograph and, where appropriate, any other means of protecting the connections against fraudulent manipulation are intact</li> </ul>	
7.10. Speed limitation device <ul style="list-style-type: none"> <li>— where possible, check whether speed limiter is fitted as required by Directive 92/6/EEC <sup>(2)</sup></li> <li>— check validity of speed limiter plate</li> <li>— where practical, check that the seals of the speed limiter and, where appropriate, any other means of protecting the connections against fraudulent manipulation are intact</li> <li>— check where practical that the speed limitation device prevents vehicles mentioned in Article 2 and Article 3 of Directive 92/6/EEC from exceeding the prescribed values</li> </ul>	
<b>8. Nuisance</b>	<b>8. Nuisance</b>
8.1. Noise	8.1. Noise

(<sup>1</sup>) Council Regulation (EEC) No 3821/85 of 20 December 1985 on recording equipment in road transport (OJ L 370, 31.12.1985, p. 8).  
(<sup>2</sup>) Council Directive 92/6/EEC of 10 February 1992 on the installation and use of speed limitation devices for certain categories of motor vehicles in the Community (OJ L 57, 2.3.1992, p. 27).

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VEHICLES IN CATEGORIES 1, 2, 3, 4, 5 AND 6

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## 8.2. Exhaust emissions

## 8.2.1. Motor vehicles equipped with positive-ignition engines and fuelled by petrol

(a) Where the exhaust emissions are not controlled by an advanced emission control system such as a three-way catalytic converter that is lambda-probe controlled:

1. Visual inspection of the exhaust system in order to check that it is complete and in a satisfactory condition and that there are no leaks.
2. Visual inspection of any emission control equipment fitted by the manufacturer in order to check that it is complete and in a satisfactory condition and that there are no leaks.

After a reasonable period of engine conditioning (taking account of manufacturer's recommendations) the carbon monoxide (CO) content of the exhaust gases is measured when the engine is idling (no load).

The maximum permissible CO content in the exhaust gases is that stated by the vehicle manufacturer. Where this information is not available or where the Member States' competent authorities decide not to use it as a reference value, the CO content must not exceed the following:

- (i) for vehicles registered or put into service for the first time between the date from which Member States required the vehicles to comply with Directive 70/220/EEC <sup>(1)</sup> and 1 October 1986: CO — 4,5 % vol.;

(<sup>1</sup>) Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States on measures to be taken against air pollution by emissions from motor vehicles (OJ L 76, 6.4.1970, p. 1).

- (ii) for vehicles registered or put into service for the first time after 1 October 1986 — 3,5 % vol.
- (b) Where the exhaust emissions are controlled by an advanced emission control system such as a three-way catalytic converter that is lambda-probe controlled:
  1. Visual inspection of the exhaust system in order to check that it is complete and in a satisfactory condition and that there are no leaks.
  2. Visual inspection of any emission control equipment fitted by the manufacturer in order to check that it is complete and in a satisfactory condition and that there are no leaks.
  3. Determination of the efficiency of the vehicle's emission control system by measuring the lambda value and the CO content of the exhaust gases in accordance with point 4 or with the procedures proposed by the manufacturers and approved at the time of type-approval. For each of the tests the engine is conditioned in accordance with the vehicle manufacturer's recommendations.
  4. Exhaust pipe emissions — limit values

The maximum permissible CO content in the exhaust gases is that stated by the vehicle manufacturer.

Where this information is not available the CO content must not exceed the following:

- (i) Measurement at engine idling speed:

The maximum permissible CO content in the exhaust gases must not exceed 0,5 % vol. and for vehicles that have been type-approved according to the limit values shown in row A or row B of the table in point 5.3.1.4 of Annex I to Directive 70/220/EEC; the maximum CO content must not exceed 0,3 % vol. Where compliance with Directive 70/220/EEC is not possible then the above shall apply to vehicles registered or first put into service after 1 July 2002.

- (ii) Measurement at high idle speed (no load), engine speed to be at least 2 000 min<sup>-1</sup>:

CO content: maximum 0,3 % vol. and for vehicles that have been type-approved according to the limit values shown in row A or row B of the table in point 5.3.1.4 of Annex I to Directive 70/220/EEC; the maximum CO content must not exceed 0,2 % vol. Where compliance with Directive 70/220/EEC is not possible then the above shall apply to vehicles registered or first put into service after 1 July 2002.

Lambda:  $1 \pm 0,03$  or in accordance with the manufacturer's specifications.

- (iii) For motor vehicles equipped with on-board diagnostic systems (OBD) in accordance with Directive 70/220/EEC Member States may as an alternative to the test specified in item (i) establish the correct functioning of the emission system through the appropriate reading of the OBD device and the simultaneous checking of the proper functioning of the OBD system.

#### 8.2.2. Motor vehicles equipped with compression-ignition (diesel) engines

- (a) Exhaust gas opacity to be measured during free acceleration (no load from idle up to cut-off speed) with gear lever in neutral and clutch engaged.
- (b) Vehicle preconditioning:
  1. Vehicles may be tested without preconditioning although for safety reasons checks should be made that the engine is warm and in a satisfactory mechanical condition.
  2. Except as specified in point (d)(5), no vehicle will be failed unless it has been preconditioned according to the following requirements:
    - (i) Engine shall be fully warm, for instance the engine oil temperature measured by a probe in the oil level dipstick tube to be at least 80 °C, or normal operating temperature if lower, or the engine block temperature measured by the level of infrared radiation to be at least an equivalent temperature. If, owing to vehicle configuration, this measurement is impractical, the establishment of the engine's normal operating temperature may be made by other means, for example by the operation of the engine cooling fan.
    - (ii) Exhaust system shall be purged by at least three free acceleration cycles or by an equivalent method.
- (c) Test procedure:
  1. Visual inspection of any emission control equipment fitted by the manufacturer in order to check that it is complete and in a satisfactory condition and that there are no leaks.
  2. Engine and any turbocharger fitted, to be at idle before the start of each free acceleration cycle. For heavy-duty diesels, this means waiting for at least 10 seconds after the release of the throttle.

3. To initiate each free acceleration cycle, the throttle pedal must be fully depressed quickly and continuously (in less than one second) but not violently, so as to obtain maximum delivery from the injection pump.
4. During each free acceleration cycle, the engine shall reach cut-off speed or, for vehicles with automatic transmissions, the speed specified by the manufacturer or if this data is not available then two-thirds of the cut-off speed, before the throttle is released. This could be checked, for instance, by monitoring engine speed or by allowing a sufficient time to elapse between initial throttle depression and release, which in the case of vehicles of category 1 and 2 of Annex I should be at least two seconds.

(d) Limit values:

1. The level of concentration must not exceed the level recorded on the plate pursuant to Directive 72/306/EEC <sup>(1)</sup>.
2. Where this information is not available or where Member States' competent authorities decide not to use it as a reference, the level of concentration must not exceed the level stated by the manufacturer or the limit values of the coefficient of absorption that are as follows:

Maximum coefficient of absorption for:

- naturally aspirated diesel engines = 2,5 m<sup>-1</sup>,
- turbo-charged diesel engines = 3,0 m<sup>-1</sup>,
- a limit of 1,5 m<sup>-1</sup> shall apply to the following vehicles that have been type-approved according to the limit values shown in:

- (a) row B of the table in point 5.3.1.4 of Annex I to Directive 70/220/EEC (Light Duty Vehicle Diesel — Euro 4);
- (b) row B1 of the tables in point 6.2.1 of Annex I to Directive 88/77/EEC <sup>(2)</sup> (Heavy Duty Vehicle Diesel — Euro 4);
- (c) row B2 of the tables in point 6.2.1 of Annex I to Directive 88/77/EEC (Heavy Duty Vehicle Diesel — Euro 5);
- (d) row C of the tables in point 6.2.1 of Annex I to Directive 88/77/EEC (Heavy Duty Vehicle — EEV)

or limit values in later amendments of Directive 70/220/EEC or limit values in later amendments of Directive 88/77/EEC or equivalent values where use is made of equipment of a type different from that used for EC type-approval.

Where compliance with point 5.3.1.4 of Annex I to Directive 70/220/EEC or with point 6.2.1 of Annex I to Directive 88/77/EEC is not possible then the above shall apply to vehicles registered or first put into service after 1 July 2008.

3. Vehicles registered or put into service for the first time before 1 January 1980 are exempted from these requirements.
4. Vehicles shall only be failed if the arithmetic means of at least the last three free acceleration cycles are in excess of the limit value. This may be calculated by ignoring any measurement that departs significantly from the measured mean, or the result of any other statistical calculation that takes account of the scattering of the measurements. Member States may limit the number of test cycles.

<sup>(1)</sup> Council Directive 72/306/EEC of 2 August 1972 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of pollutants from diesel engines for use in vehicles (OJ L 190, 20.8.1972, p. 1).

<sup>(2)</sup> Council Directive 88/77/EEC of 3 December 1987 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles (OJ L 36, 9.2.1988, p. 33).

5. To avoid unnecessary testing, Member States may, by way of exception from the provisions of point 8.2.2(d)(4), fail vehicles which have measured values significantly in excess of the limit values after less than three free acceleration cycles or after the purging cycles (or equivalent) specified in point 8.2.2(b)2(ii). Equally to avoid unnecessary testing, Member States may, by way of exception from the provisions of point 8.2.2(d)(4), pass vehicles which have measured values significantly below the limits after less than three free acceleration cycles or after the purging cycles (or equivalent) specified in point 8.2.2(b)2(ii).

#### 8.2.3. Test equipment

Vehicle emissions are tested using equipment designed to establish accurately whether the limit values prescribed or indicated by the manufacturer have been complied with.

- 8.2.4. Where, during EC type-approval, a type of vehicle is found not to have satisfied the limit values laid down by this directive, the Member States may lay down higher limit values for that type of vehicle on the basis of proof supplied by the manufacturer. They must forthwith inform the Commission thereof and it in turn must inform the other Member States.

VEHICLES IN CATEGORIES 1, 2 AND 3	VEHICLES IN CATEGORIES 4, 5 AND 6
8.3. Suppression of radio interference	
<b>9. Supplementary tests for public transport vehicles</b>	
9.1. Emergency exit(s) (including hammers for breaking windows), signs indicating emergency exit(s)	
9.2. Heating system	
9.3. Ventilation system	
9.4. Seat layout	
9.5. Interior lighting	
<b>10. Vehicle identification</b>	<b>10. Vehicle identification</b>
10.1. Registration plate	10.1. Registration plate
10.2. Chassis number	10.2. Chassis number

## ANNEX III

## PART A

**Repealed Directive with list of its successive amendments  
(referred to in Article 10)**

Council Directive 96/96/EC  
(OJ L 46, 17.2.1997, p. 1)

Commission Directive 1999/52/EC  
(OJ L 142, 5.6.1999, p. 26)

Commission Directive 2001/9/EC  
(OJ L 48, 17.2.2001, p. 18)

Commission Directive 2001/11/EC  
(OJ L 48, 17.2.2001, p. 20)

Commission Directive 2003/27/EC  
(OJ L 90, 8.4.2003, p. 41)

Regulation (EC) No 1882/2003 of the European Parliament  
and of the Council  
(OJ L 284, 31.10.2003, p. 1)

only Annex III, point 68

## PART B

**Time limits for transposition into national law  
(referred to in Article 10)**

Directive	Time limit for transposition
96/96/EC	9 March 1998
1999/52/EC	30 September 2000
2001/9/EC	9 March 2002
2001/11/EC	9 March 2003
2003/27/EC	1 January 2004

## ANNEX IV

## CORRELATION TABLE

Directive 96/96/EC	This Directive
Articles 1 to 4	Articles 1 to 4
Article 5, introductory wording	Article 5, introductory wording
Article 5, first to seventh indents	Article 5, points (a) to (g)
Article 6	—
Article 7	Article 6(1)
—	Article 6(2)
Article 8(1)	Article 7(1)
Article 8(2), first subparagraph	Article 7(2)
Article 8(2), second subparagraph	—
Article 8(3)	—
Article 9(1)	—
Article 9(2)	Article 8
Article 10	—
Article 11(1)	—
Article 11(2)	Article 9
Article 11(3)	—
—	Article 10
Article 12	Article 11
Article 13	Article 12
Annexes I and II	Annexes I and II
Annexes III and IV	—
—	Annex III
—	Annex IV