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ADDENDUM TO REPORT

From: General Secretariat
To: COREPER

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No. Cion prop.: 12786/12 TRANS 249 CODEC 1954

Subject: ***Preparation of the Council meeting (Transport, Telecommunications and Energy) on 20 December 2012***
Proposal for a Regulation of the European Parliament and of the Council on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC (First reading)
- *General approach*

Delegations will find attached the revised annexes to the above-mentioned proposal.

**ANNEX
to the**

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive
2009/40/EC**

ANNEX I

[...]

ANNEX II

**MINIMUM REQUIREMENTS CONCERNING THE CONTENTS AND RECOMMENDED
METHODS OF TESTING**

1. GENERAL

This Annex identifies the vehicle systems and components to be tested; it details the recommended method of testing them and the criteria to be used when determining whether the condition of the vehicle is acceptable.

The test must cover at least the items listed in point 3 below provided that these are related to the equipment of the vehicle being tested in the Member State concerned. The test may also include a verification whether the respective parts and components of that vehicle correspond to the required safety and environmental characteristics that were in force at the time of approval or, if applicable, at the time of retrofitting.

The tests shall be carried out using techniques and equipment currently available without the use of tools to dismantle or remove any part of the vehicle.

In case the design of the vehicle does not allow the application of the test methods of this Annex, the test shall be conducted in accordance with the recommended test methods accepted by the competent authorities.

All the items listed shall be considered as mandatory at a periodic test of vehicles, except those marked with the indication (X), which are related to the condition of the vehicle and its suitability for use on the road but which are not considered essential in a roadworthiness test.

"Reasons for failure" do not apply in cases where they refer to requirements which were not prescribed in the relevant vehicle approval legislation at the time of first registration, first entry into service or retrofitting requirements.

Where a method of test is given as visual, it means that in addition to looking at the items, the inspector shall, if appropriate, also handle them, evaluate noise or use any other appropriate means of inspection without the use of equipment.

2. SCOPE OF TEST

The test shall cover at least the following elements:

- 0) Identification of the vehicle;
- 1) Braking equipment;
- 2) Steering;
- 3) Visibility;
- 4) Lighting equipment and parts of electric system;
- 5) Axles, wheels, tyres, suspension;
- 6) Chassis and chassis attachments;
- 7) Other equipment;
- 8) Nuisance;
- 9) Supplementary tests for passenger carrying vehicles M2 and M3.

3. CONTENTS AND METHODS OF TESTING, ASSESSMENT OF DEFICIENCIES OF VEHICLES

The test shall cover at least the items and use the minimum standards and the recommended methods listed in the following table:

For each vehicle systems and components subject to testing, the assessment of deficiencies shall be carried out according to the criteria set out in the table, on a case-by-case basis.

Deficiencies not listed in this Annex shall be assessed according to the risks for road safety.

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
0. IDENTIFICATION OF THE VEHICLE					
0.1. Registration number plates (if needed by requirements(1))	Visual inspection	(a) Number plate(s) missing or so insecure/fixed that it is (they are) likely to fall off.		X	
		(b) Inscription missing or illegible		X	
		(c) Not in accordance with vehicle documents or records.		X	
0.2. Vehicle identification chassis/ serial number	Visual inspection	(a) Missing or can not be found.		X	
		(b) Incomplete, illegible, obviously falsified, or does not match the vehicle documents.		X	
		(c) Illegible vehicle documents or clerical inaccuracies.	X		

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1. BRAKING EQUIPMENT					
1.1. Mechanical condition and operation					
1.1.1. Service brake pedal/hand lever pivot	Visual inspection of the components while the braking system is operated.	(a) Pivot too tight.		X	
	<i>Note:</i> Vehicles with power-assisted braking systems should be inspected with the engine switched off.	(b) Excessive wear or play.		X	
1.1.2. Pedal/hand lever condition and travel of the brake operating device	Visual inspection of the components while the braking system is operated	(a) Excessive or insufficient reserve travel.		X	
	<i>Note:</i> Vehicles with power-assisted braking systems should be inspected with the engine switched off.	(b) Brake control not releasing correctly. If its functionality affected	X		X
		(c) Anti-slip provision on brake pedal missing, loose or worn smooth.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.3. Vacuum pump or compressor and reservoirs	Visual inspection of the components at normal working pressure. Check time required for vacuum or air pressure to reach safe working value and function of warning device, multi-circuit protection valve and pressure relief valve.	(a) Insufficient pressure/vacuum to give assistance for at least four brake applications after the warning device has operated (or gauge shows an unsafe reading). at least two brake applications after the warning device has operated (or gauge shows an unsafe reading).		X	X
		(b) Time taken to build up air pressure/vacuum to safe working value is too long according to the requirements ⁽¹⁾		X	
		(c) Multi-circuit protection valve or pressure relief valve not working.		X	
		(d) Air leak causing a noticeable drop in pressure or audible air leaks.		X	
		(e) External damage likely to affect the function of the braking system. Secondary braking performance not met.		X	X
1.1.4. Low pressure warning gauge or indicator	Functional check	Malfunctioning or defective gauge or indicator. Low pressure not identifiable.	X	X	
1.1.5. Hand operated brake control valve	Visual inspection of the components while the braking system is operated.	(a) Control cracked, damaged or excessively worn.		X	
		(b) Control insecure on valve or valve insecure.		X	
		(c) Loose connections or leaks in system.		X	
		(d) Unsatisfactory operation.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.6. Parking brake activator, lever control, parking brake ratchet, electronic parking brake	Visual inspection of the components while the braking system is operated.	(a) Ratchet not holding correctly.		X	
		(b) wear at lever pivot or in ratchet mechanism. Excessive Wear.	X	X	
		(c) Excessive movement of lever indicating incorrect adjustment.		X	
		(d) Activator missing, damaged or inoperative.		X	
		(e) Incorrect functioning, warning indicator shows malfunction		X	
1.1.7. Braking valves (foot valves, unloaders, governors)	Visual inspection of the components while the braking system is operated.	(a) Valve damaged or excessive air leak. If its functionality affected		X	X
		(b) Excessive oil discharge from compressor.	X		
		(c) Valve insecure or inadequately mounted.		X	
		(d) Hydraulic fluid discharge or leak. If its functionality affected		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.8. Couplings for trailer brakes (electrical & pneumatic)	Disconnect and reconnect braking system coupling between towing vehicle and trailer.	(a) Tap or self sealing valve defective. If its functionality affected	X	X	
		(b) Tap or valve insecure or inadequately mounted. If its functionality affected	X	X	
		(c) Excessive leaks. If its functionality affected		X	X
		(d) Not functioning correctly. Operation of break affected.		X	X
1.1.9. Energy storage reservoir pressure tank	Visual inspection.	(a) Tank slightly damaged or slightly corroded. Tank heavily damaged. Corroded or leaking.	X	X	
		(b) Drain device inoperative. Drain device inoperative.	X	X	
		(c) Tank insecure or inadequately mounted.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.10. Brake servo units, master cylinder (hydraulic systems)	Visual inspection of the components while the braking system is operated, if possible.	(a) Defective or ineffective servo unit		X	
		(b) If not operating.			X
		(b) Master cylinder defective but breake still operating. Master cylinder defective or leaking.		X	X
		(c) Master cylinder insecure but breake still operating. Master cylinder insecure.		X	X
		(d) Insufficient brake fluid below MIN mark Brake fluid significantly below MIN mark No brake fluid visible.	X	X	X
		(e) Master cylinder reservoir cap missing.	X		
		(f) Brake fluid warning light illuminated or defective.	X		
1.1.11. Rigid brake pipes	Visual inspection of the components while the braking system is operated, if possible.	(g) Incorrect functioning of brake fluid level warning device.	X		
		(a) Imminent risk of failure or fracture.			X
		(b) Pipes or connections leaking (air brake systems). Pipes or connection leaking (hydraulic break systems)		X	X
		(c) Pipes damaged or excessively corroded. Affecting the functioning of the brakes by blocking or imminent risk of leaking.		X	X
		(d) Pipes misplaced. Risk of damage.	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.12. Flexible brake hoses	Visual inspection of the components while the braking system is operated, if possible.	(a) Imminent risk of failure or fracture.			X
		(b) Hoses damaged, chafing, twisted or too short. Hoses damaged or chafing.	X	X	
		(c) Hoses or connections leaking (air brake systems) Hoses or connections leaking (hydraulic brake systems).		X	X
		(d) Hoses bulging under pressure. Cord impaired.		X	X
		(e) Hoses porous.		X	
1.1.13. Brake linings and pads	Visual inspection.	(a) Lining or pad excessively worn. (min mark reached) Lining or pad excessively worn. (minimum mark not visible)		X	X
		(b) Lining or pad contaminated (oil, grease etc.). Braking performance affected.		X	X
		(c) Lining or pad missing or wrongly mounted.			X
1.1.14. Brake drums, brake discs	Visual inspection.	(a) Drum or disc excessively worn, excessively scored, cracked, insecure or fractured.		X	
		(b) Drum or disc contaminated (oil, grease, etc.)			X
		(c) Drum or disc missing			X
		(d) Back plate insecure.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.15. Brake cables, rods, levers, linkages	Visual inspection of the components while the braking system is operated, if possible.	(a) Cable damaged or knotted. Breaking performance affected.		X	X
		(b) Component excessively worn or corroded. Breaking performance affected.		X	X
		(c) Cable, rod or joint insecure.		X	
		(d) Cable guide defective.		X	
		(e) Restriction to free movement of the braking system.		X	
		(f) Abnormal movement of the levers/linkage indicating maladjustment or excessive wear.		X	
1.1.16. Brake actuators (including spring brakes or hydraulic cylinders)	Visual inspection of the components while the braking system is operated, if possible.	(a) Actuator cracked or damaged. Braking performance affected.		X	X
		(b) Actuator leaking.		X	
		(c) Actuator insecure or inadequately mounted. Braking performance affected.		X	X
		(d) Actuator excessively corroded. Likely to crack.		X	X
		(e) Insufficient or excessive travel of operating piston or diaphragm mechanism. Braking performance affected (lack of reserve movement)		X	X
		(f) Dust cover missing or excessively damaged. Dust cover missing or excessively damaged.	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.17. Load sensing valve	Visual inspection of the components while the braking system is operated, if possible.	(a) Defective linkage.		X	
		(b) Linkage incorrectly adjusted.		X	
		(c) Valve seized or inoperative. (ABS functioning) Valve seized or inoperative.		X	X
		(d) Valve missing. (If required)			X
		(e) Missing data plate.	X		
		(f) Data illegible or not in accordance with requirements ⁽¹⁾	X		
1.1.18. Slack adjusters and indicators	Visual inspection.	(a) Adjuster damaged, seized or having abnormal movement, excessive wear or incorrect adjustment.		X	
		(b) Adjuster defective.		X	
		(c) Incorrectly installed or replaced.		X	
1.1.19. Endurance braking system (where fitted or required)	Visual inspection.	(a) Insecure connectors or mountings. If its functionality affected	X	X	
		(b) System obviously defective or missing.		X	
1.1.20. Automatic operation of trailer brakes	Disconnect brake coupling between towing vehicle and trailer.	Trailer brake does not apply automatically when coupling disconnected.			X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.1.21. Complete braking system	Visual inspection	(a) Other system devices (e.g. anti-freeze pump, air dryer, etc.) damaged externally or excessively corroded in a way that adversely affects the braking system. Braking performance affected.		X	X
		(b) Leakage of air or anti-freeze. System Functionality affected.	X	X	
		(c) Any component insecure or inadequately mounted.		X	
		(d) Unsafe modification to any component ⁽³⁾ Braking performance affected.		X	X
1.1.22. Test connections (where fitted or required)	Visual inspection	(a) Missing.		X	
1.1.23. Overrun brake	Visual inspection and by operation	Insufficient efficiency		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.2 Serving braking performance and efficiency					
1.2.1. Performance	during a test on a static brake testing machine or, if impossible during a road test apply the brakes progressively up to maximum effort.	(a) Inadequate braking effort on one or more wheels. No braking effort on one or more wheels		X	X
		(b) Braking effort from any wheel is less than 70% of maximum effort recorded from the other wheel on the same axle. Or in the case of testing on the road, the vehicle deviates excessively from a straight line. Braking effort from any wheel is less than 50% of maximum effort recorded from the other wheel on the same axle in case of steered axles		X	X
		(c) No gradual variation in brake effort (grabbing).		X	
		(d) Abnormal lag in brake operation of any wheel.		X	
		(e) Excessive fluctuation of brake force during each complete wheel revolution.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.2.2. Efficiency	Test with a static brake testing machine or, if one cannot be used for technical reasons, by a road test using a recording decelerometer to establish the braking ratio which relates to the maximum authorised mass or, in the case of semi-trailers, to the sum of the authorised axle loads. Vehicles or a trailer with a maximum permissible mass exceeding 3500 kg has to be inspected following the standards given by ISO 21069 or equivalent methods. Road tests should be carried out under dry conditions on a flat, straight road.	Does not give at least the minimum figure as follows¹: 1. Vehicles registered for the first time after 1/1/2012: – Category N1: 50 % – Category M1: 58 % – Category M2 and M3: 50 % – Category N2 and N3: 50 % – Category O2, O3 and O4: • for semi-trailers: 45%² • for draw-bar trailers: 50% 2. Vehicles registered for the first time before 1/1/2012: Category N1: 45% Category M1, M2 and M3: 50%³ Category N2 and N3: 43%⁴ Category O2, O3 and O4: 40%⁵ 3. Other categories - Categories L (both brakes): Category L1e: 42 %		X	
				X	
				X	

¹ The vehicle categories which are out of the scope of this Directive are included for guidance.

² 43% for semi-trailers approved before 1 January 2012.

³ 48% for vehicles not fitted with ABS or type approved before 1 October 1991.

⁴ 45% for vehicles registered after 1988 or from the date specified in requirements whichever is the later.

⁵ 43% for semi-trailers and draw-bar trailers registered after 1988 or from the date in requirements whichever is the later.

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
		Category L2e, L6e: 40 % Category L3e: 50 % Category L4e: 46 % Category L5e, L7e: 44 % - Categories L (rear wheel brake): all categories: 25 % of the total vehicle mass Less than 50% of the above values reached			X
1.3. Secondary (emergency) braking performance and efficiency (if met by separate system)					
1.3.1. Performance	If the secondary braking system is separate from the service braking system, use the method specified in 1.2.1.	(a) Inadequate braking effort on one or more wheels. No braking effort on one or more wheels		X	X
		(b) Braking effort from any wheel is less than 70% of maximum effort recorded from another wheel on the same axle specified. Or in the case of testing on the road, the vehicle deviates excessively from a straight line. Braking effort from any wheel is less than 50% of maximum effort recorded from the other wheel on the same axle in case of steered axles		X	X
		(c) No gradual variation in brake effort (grabbing).		X	
1.3.2. Efficiency	If the secondary braking system is separate from the service braking system, use the method specified in 1.2.2.	Braking effort less than 50% ⁶ of the service brake performance defined in section 1.2.2 in relation to the maximum authorized mass. Less than 50% of the above values reached.		X	X

⁶ 2.2m/s² for N1, N2 and N3 vehicles.

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.4. Parking braking performance and efficiency					
1.4.1. Performance	Apply the brake during a test on a static brake testing machine.	Brake inoperative on one side or in the case of testing on the road, the vehicle deviates excessively from a straight line. Less than 50% of the efficiency values reached in relation to the vehicle mass during testing		X	X
1.4.2. Efficiency	Test with a static brake testing machine. If not possible, then by a road test using either an indicating or recording decelerometer or with the vehicle on a slope of known gradient.	Does not give at least for all vehicles a braking ratio of 16% in relation to the maximum authorized mass, or, for motor vehicles, of 12% in relation to the maximum authorized combination mass of the vehicle, whichever is the greater. Less than 50% of the above values reached.		X	X
1.5. Endurance braking system performance	Visual inspection and, where possible test whether the system functions.	(a) No gradual variation of efficiency (not applicable to exhaust brake systems).		X	
		(b) System not functioning.		X	
1.6. Anti-lock braking system (ABS)	Visual inspection and inspection of warning device and/or using electronic vehicle interface.	(a) Warning device malfunctioning.		X	
		(b) Warning device shows system malfunction.		X	
		(c) Wheel speed sensors missing or damaged		X	
		(d) Wirings damaged		X	
		(e) Other components missing or damaged		X	
		(f) System indicates failure via the electronic vehicle interface		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
1.7 Electronic brake system (EBS)	Visual inspection and inspection of warning device and/or using electronic vehicle interface.	(a) Warning device malfunctioning.		X	
		(b) Warning device shows system malfunction.		X	
		(c) System indicates failure via the electronic vehicle interface		X	
1.8 Brake fluid	Visual inspection	Brake fluid contaminated or sedimented Imminent risk of failure		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
2. STEERING					
2.1. Mechanical condition					
2.1.1. Steering gear condition	With the vehicle over a pit or on a hoist and with the road wheels off the ground or on turn tables, rotate the steering wheel from lock to lock. Visual inspection of the operation of the steering gear.	(a) Roughness in operation of gear.		X	
		(b) Sector shaft twisted or splines worn. Affecting functionality		X	X
		(c) Excessive wear in sector shaft. Affecting functionality		X	X
		(d) Excessive movement of sector shaft.		X	
		Affecting functionality			X
		(e) Leaking. formation of drops	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
2.1.2. Steering gear casing attachment	With vehicle on a pit or hoist and the weight of the vehicle road wheels on the ground, rotate steering / handle bar wheel clock-wise and anticlockwise or using a specially adapted wheel play detector. Visual inspection of the attachment of gear casing to chassis.	(a) Steering gear casing not properly attached. Attachments dangerously loose or relative movement to chassis/bodywork visible		X	X
		(b) Elongated fixing holes in chassis. Attachments seriously affected		X	X
		(c) Missing or fractured fixing bolts. Attachments seriously affected		X	X
		(d) Steering gear casing fractured. Stability or attachment of casing affected		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
2.1.3. Steering linkage condition	With the vehicle over a pit or on a hoist and with the road wheel on ground, rock steering wheel clockwise and anti-clockwise or using a specially adapted wheel play detector. Visual inspection of steering components for wear, fractures and security.	(a) Relative movement between components which should be fixed. Excessive movement or likely to un-link		X	X
		(b) Excessive wear at joints. A very serious risk to unlink		X	X
		(c) Fractures or deformation of any component. Affecting function		X	X
		(d) Absence of locking devices.		X	
		(e) Misalignment of components (e.g. track rod or drag link).		X	
		(f) Unsafe modification ⁽³⁾ . Affecting function		X	X
		(g) Dust cover damaged or deteriorated. Dust cover missing or severely deteriorated	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
2.1.4. Steering linkage operation	With the vehicle over a pit or on a hoist and with the road wheel on ground, rock steering wheel clockwise and anti-clockwise or using a specially adapted wheel play detector. Visual inspection of steering components for wear, fractures and security.	(a) Moving steering linkage fouling a fixed part of chassis.		X	
		(b) Steering stops not operating or missing.		X	
2.1.5. Power steering	Check steering system for leaks and hydraulic fluid reservoir level (if visible). With the road wheels on ground and with the engine running, check that the power steering system is operating.	(a) Fluid leak or functions affected.		X	
		(b) Insufficient fluid (below MIN mark) Insufficient reservoir	X	X	
		(c) Mechanism not working. Steering affected		X	X
		(d) Mechanism fractured or insecure. Steering affected		X	X
		(e) Misalignment or fouling of components. Steering affected		X	X
		(f) Unsafe modification ⁽³⁾ . Steering affected		X	X
		(g) Cables/hoses damaged, excessively corroded. Steering affected		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
2.2. Steering wheel, column and handle bar					
2.2.1. Steering wheel/handle bar condition	With the vehicle over a pit or on a hoist and the mass of the vehicle on the ground, push and pull the steering wheel in line with column, push steering wheel/handle bar in various directions at right angles to the column/forks. Visual inspection of play, and condition of flexible couplings or universal joints.	(a) Relative movement between steering wheel and column indicating looseness Very serious risk to unlink		X	X
		(b) Absence of retaining device on steering wheel hub Very serious risk to unlink		X	X
		(c) Fracture or looseness of steering wheel hub, rim or spokes Very serious risk to unlink		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
2.2.2.Steering column/yokes and forks and steering dampers	With the vehicle over a pit or on a hoist and the mass of the vehicle on the ground, push and pull the steering wheel in line with column, push steering wheel/handle bar in various directions at right angles to the column/forks. Visual inspection of play, and condition of flexible couplings or universal joints.	(a) Excessive movement of centre of steering wheel up or down.		X	
		(b) Excessive movement of top of column radially from axis of column.		X	
		(c) Deteriorated flexible coupling.		X	
		(d) Attachment defective.		X	
		Very serious risk to unlink			X
		(e) Unsafe modification ⁽³⁾			X
2.3.Steering play	With the vehicle over a pit or on a hoist, the mass of the vehicle on the road-wheels, the engine, if possible, running for vehicles with power steering and with the road wheels in the straight-ahead position, lightly turn the steering wheel clockwise and anti-clockwise as far as possible without moving the road wheels. Visual inspection of free movement.	Free play in steering excessive (for example movement of a point on the rim exceeding one fifth of the diameter of the steering wheel or not in accordance with the requirements ⁽¹⁾ . Safe steering affected		X	X
2.4.Wheel alignment (X)(2)	Check alignment of steered wheels with suitable equipment.	Alignment not in accordance with vehicle manufacturer's data or requirements ⁽¹⁾ . Straight on driving affected; directional stability impaired	X		X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
2.5. Trailer steered axle turntable	Visual inspection or using a specially adapted wheel play detector	(a) Component slightly damaged. Component heavy damaged or cracked.		X	X
		(b) Excessive play. Straight on driving affected; directional stability impaired		X	X
		(c) Attachment defective Attachment seriously affected		X	X
2.6. Electronic Power Steering (EPS)	Visual inspection and consistency check between the angle of the steering wheel and the angle of the wheels when switching on/off the engine, and/or using the electronic vehicle interface	(a) EPS Malfunction Indicator Lamp (MIL) indicates any kind of failure of the system.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
		(b) Inconsistency between the angle of the steering wheel and the angle of the wheels. Steering affected		X	
		(c) power assistance not working		X	X
		(d) System indicates failure via the electronic vehicle interface		X	
3. VISIBILITY					
3.1. Field of vision	Visual inspection from driving seat.	Obstruction within driver's field of view that materially affects his view in front or to the sides. (outside cleaning area of windscreen wipers) Inside cleaning area of windscreen wipers affected or outer mirrors not visible	X		
3.2. Condition of glass	Visual inspection.	(a) Cracked or discoloured glass or transparent panel (if permitted). (outside cleaning area of windscreen wipers) Inside cleaning area of windscreen wipers affected or outer mirrors not visible	X		
		(b) Glass or transparent panel (including reflecting or tinted film) that does not comply with specifications in the requirements ⁽¹⁾ , (outside cleaning area of windscreen wipers) Inside cleaning area of windscreen wipers affected or outer mirrors not visible	X		
		(c) Glass or transparent panel in unacceptable condition. Visibility through inside cleaning area of windscreen wipers heavily affected		X	X
3.3. Rear-view mirrors or devices	Visual inspection.	(a) Mirror or device missing or not fitted according to the requirements ⁽¹⁾ . (at least two rear-view possibilities available) Less than two rear-view possibilities available		X	
		(b) Mirror or device slightly damaged or loose. Mirror or device inoperative, heavily damaged, loose or insecure	X		
		(c) Necessary field of vision not covered		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
3.4. Windscreen wipers	Visual inspection and by operation.	(a) Wipers not operating or missing or not in accordance with the requirements ⁽¹⁾		X	
		(b) Wiper blade defective.	X		
		Wiper blade missing or obviously defective		X	
3.5. Windscreen washers	Visual inspection and by operation	Washers not operating adequately. (lack of washing fluid but pump operating or water-jet misaligned)	X		
		Washers not operating		X	
3.6 Demisting system (X) ⁽²⁾	Visual inspection and by operation.	System inoperative or obviously defective.	X		
4. LAMPS, REFLECTORS AND ELECTRICAL EQUIPMENT					
4.1. Headlamps					
4.1.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light / light source. (multiple light /light sources; in case of LED more than 1/3 functioning)	X		
		Single light / light sources; in case of LED seriously affected visibility		X	
		(b) Slightly defective projection system (reflector and lens).	X		
		Heavily defective or missing projection system (reflector and lens).		X	
4.1.2. Alignment	Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.	(c) Lamp not securely attached.		X	
		Aim of a headlamp not within limits laid down in the requirements ⁽¹⁾ .		X	
4.1.3. Switching	Visual inspection and by operation.	(a) Switch does not operate in accordance with the requirements ⁽¹⁾ (Number of headlamps illuminated at the same time)	X		
		Exceeding of maximum permitted light brightness to the front		X	
		(b) Function of control device impaired.		X	

Item	Method	Reasons for failure		Assessment of deficiencies		
				Minor	Major	Dangerous
4.1.4. Compliance with requirements(1).	Visual inspection and by operation.	(a)	Lamp, emitted colour, position, brightness or marking not in accordance with the requirements ⁽¹⁾ .		X	
		(b)	Products on lens or light source which obviously reduce light brightness or change emitted colour.		X	
		(c)	Light source and lamp not compatible		X	
4.1.5. Levelling devices (where mandatory)	Visual inspection and by operation if possible.	(a)	Device not operating.		X	
		(b)	Manual device cannot be operated from driver's seat.		X	
4.1.6. Headlamp cleaning device (where mandatory)	Visual inspection and by operation if possible.	Device not operating.		X		
		In case of gas-discharging lamps			X	
4.2. Front and rear position lamps, side marker lamps, end outline marker lamps and daytime running lights						
4.2.1. Condition and operation	Visual inspection and by operation.	(a)	Defective light source.		X	
		(b)	Defective lens.		X	
		(c)	Lamp not securely attached. Very serious risk to fall off	X	X	
4.2.2 Switching	Visual inspection and by operation.	(a)	Switch does not operate in accordance with the requirements ⁽¹⁾ . Rear position lamps and side marker lamps can be switched off when headlamps are on		X X	
		(b)	Function of control device impaired.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
4.2.3. Compliance with requirements(1)	Visual inspection and by operation.	(a) Lamp, emitted colour, position brightness or marking not in accordance with the requirements ⁽¹⁾ . Red light to the front or white light to the rear; heavily reduced light brightness	X		
		(b) Products on lens or light source which reduce light brightness or change emitted colour. Red light to the front or white light to the rear; heavily reduced light brightness	X	X	
4.3. Stop Lamps					
4.3.1. Condition and operation	Visual inspection and by operation.	(a) Defective light source.(multiple light source in case of LED more than 1/3 functioning) Single light sources; in case of LED less than 2/3 functioning All light sources not fonctionning	X		
		(b) slightly defective lens (no influence on emitted light). Heavily defective lens (emitted light affected).	X	X	
		(c) Lamp not securely attached. Very serious risk to fall off	X	X	
4.3.2. Switching	Visual inspection and by operation.	(a) Switch does not operate in accordance with the requirements ⁽¹⁾ . Delayed operation No operation at all	X		
		(b) Function of control device impaired.		X	
4.3.3.Compliance with requirements(1).	Visual inspection and by operation.	Lamp, emitted colour, position, brightness or marking ⁷ not in accordance with the requirements ⁽¹⁾ . White light to the rear; heavily reduced light brightness	X		

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
4.4. Direction indicator and hazard warning lamps					
4.4.1. Condition and operation	Visual inspection and by operation.	(a) Defective light source (multiple light source in case of LED more than 1/3 functioning) Single light sources; in case of LED less than 2/3 functioning	X		
		(b) slightly defective lens. (no influence on emitted light) Heavily defective lens (emitted light affected).	X	X	
		(c) Lamp not securely attached Very serious risk to fall off	X	X	
4.4.2. Switching	Visual inspection and by operation.	Switch does not operate in accordance with the requirements ⁽¹⁾ . No operation at all	X	X	
4.4.3. Compliance with requirements(1).	Visual inspection and by operation.	Lamp, emitted colour, position, brightness or marking ⁷ not in accordance with the requirements ⁽¹⁾ .		X	
4.4.4. Flashing frequency	Visual inspection and by operation.	Rate of flashing not in accordance with the requirements ⁽¹⁾ (frequency more than 25% deviating)	X		
4.5. Front and rear fog lamps					
4.5.1. Condition and operation	Visual inspection and by operation.	(a) Defective light source. (multiple light source in case of LED more than 1/3 functioning) Single light sources; in case of LED less than 2/3 functioning	X	X	
		(b) slightly defective lens. (no influence on emitted light) Heavily defective lens (emitted light affected).	X	X	
		(c) Lamp not securely attached. Very serious risk to fall off or dazzling upcoming traffic	X	X	
4.5.2 Alignment (X)(2)	by operation and using a headlamp aiming device	Front fog lamp out of horizontal alignment when the light pattern has cut-off line (cut-off line too low) Cut-off line above that for head lamps	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
4.5.3. Switching	Visual inspection and by operation.	Switch does not operate in accordance with the requirements ⁽¹⁾ . Not operative	X		
4.5.4. Compliance with requirements(1).	Visual inspection and by operation.	(a) Lamp, emitted colour, position, brightness or marking ⁷ not in accordance with the requirements ⁽¹⁾		X	
		(b) System does not operate in accordance with the requirements ⁽¹⁾		X	
4.6. Reversing lamps					
4.6.1. Condition and operation	Visual inspection and by operation.	(a) Defective light source.	X		
		(b) Defective lens.	X		
		(c) Lamp not securely attached. Very serious risk to fall off	X	X	
4.6.2. Compliance with requirements(1)	Visual inspection and by operation.	(a) Lamp, emitted colour, position, brightness or marking ⁷ not in accordance with the requirements ⁽¹⁾ .		X	
		(b) System does not operate in accordance with the requirements ⁽¹⁾ .		X	
4.6.3. Switching	Visual inspection and by operation.	Switch does not operate in accordance with the requirements ⁽¹⁾ . Reversing lamp can be switched on with gear not in position reverse	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
4.7. Rear registration plate lamp					
4.7.1. Condition and operation	Visual inspection and by operation.	(a) Lamp throwing direct or white light to the rear.	X		
		(b) Defective light source. multiple light source	X		
		Defective light source. single light source		X	
		Lamp not securely attached.	X		
		Very serious risk to fall off		X	
4.7.2.Compliance with requirements(1)	Visual inspection and by operation.	System does not operate in accordance with the requirements ⁽¹⁾ .	X		
4.8. Retro-reflectors, conspicuity (retro reflecting) markings and rear marker plates					
4.8.1. Condition	Visual inspection.	(a) Reflecting equipment defective or damaged.	X		
		Reflecting affected		X	
		(b) Reflector not securely attached.	X		
		Likely to fall off		X	
4.8.2. Compliance with requirements(1)	Visual inspection.	Device, reflected colour or position not in accordance with the requirements ⁽¹⁾ .		X	
		Missing or reflecting red colour to the front or white colour to the rear			
4.9. Tell-tales mandatory for lighting equipment					
4.9.1. Condition and operation	Visual inspection and by operation.	Not operating.	X		
		Not operating for un-dipped beam or rear fog lamp		X	
4.9.2. Compliance with requirements(1)	Visual inspection and by operation.	Not in accordance with the requirements ⁽¹⁾ .	X		

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
4.10. Electrical connections between towing vehicle and trailer or semi-trailer	Visual inspection: if possible examine the electrical continuity of the connection.	(a) Fixed components not securely attached. Loose socket	X	X	
		(b) Damaged or deteriorated insulation. Likely to cause a short-circuit fault	X	X	
		(c) Trailer or towing vehicle electrical connections not functioning correctly. Trailer brake lights not working at all		X	X
4.11. Electrical wiring	Visual inspection with vehicle over a pit or on a hoist, including inside the engine compartment in some cases.	(a) Wiring insecure or not adequately secured. Fixings loose, touching sharp edges, connectors likely to be disconnected Wiring likely to touch hot parts, rotating parts or ground, connectors disconnected (relevant parts for braking, steering)	X	X	X
		(b) Wiring slightly deteriorated. Wiring heavily deteriorated Wiring extreme deteriorated (relevant parts for braking, steering)	X	X	X
		(c) Damaged or deteriorated insulation. Likely to cause a short-circuit fault Eminent risk of fire, formation of sparks	X	X	X
		(a) A lamp/retro-reflector fitted not in accordance with the requirements ⁽¹⁾ . Emitting/reflecting red light to the front or white light to the rear	X	X	
4.12. Non obligatory lamps and retro-reflectors (X)(2)	Visual inspection and by operation.	(b) Lamp operation not in accordance with the requirements ⁽¹⁾ . Number of headlights simultaneous operating exceeding permitted light brightness; Emitting red light to the front or white light to the rear	X	X	
		(c) Lamp/retro-reflector not securely attached. Very serious risk to fall off	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
4.13. Battery(ies)	Visual inspection.	(a) Insecure. Not properly attached; Likely to cause a short-circuit fault	X	X	
		(b) Leaking. Loss of hazardous substances	X	X	
		(c) Defective switch (if required).		X	
		(d) Defective fuses (if required).		X	
		(e) inappropriate ventilation (if required)		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
5. AXLES, WHEELS, TYRES AND SUSPENSION					
5.1. Axles					
5.1.1. Axles	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).	(a) Axle fractured or deformed.			X
		(b) Insecure fixing to vehicle. Stability impaired, functionality affected: Extensive movement relative to its fixtures		X	X
		(c) Unsafe modification ⁽³⁾ . Stability impaired, functionality affected, insufficient clearance to other vehicle parts or to the ground		X	X
5.1.2. Stub axles	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM. Apply a vertical or lateral force to each wheel and note the amount of movement between the axle beam and stub axle.	(a) Stub axle fractured.			X
		(b) Excessive wear in the swivel pin and/or bushes. Likely of loosening; directional stability impaired		X	X
		(c) Excessive movement between stub axle and axle beam. Likely of loosening; directional stability impaired		X	X
		Stub axle pin loose in axle. Likely of loosening; directional stability impaired		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
5.1.3. Wheel bearings	Visual inspection with the vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM. Rock the wheel or apply a lateral force to each wheel and note the amount of upward movement of the wheel relative to the stub axle.	(a) Excessive play in a wheel bearing. directional stability impaired; danger of demolition		X	X
		(b) Wheel bearing too tight, jammed. Danger of overheating; danger of demolition		X	X
5.2. Wheels and tyres					
5.2.1. Road wheel hub	Visual inspection.	(a) Any wheel nuts or studs missing or loose. Missing fixing or loose in such an extent which affects very seriously the road safety.		X	X
		(b) Hub worn or damaged Hub worn or damaged in a way that secure fixing of wheels affected		X	X
5.2.2. Wheels	Visual inspection of both sides of each wheel with vehicle over a pit or on a hoist.	(a) Any fracture or welding defect.			X
		(b) Tyre retaining rings not properly fitted. Likely to come-off		X	X
		(c) Wheel badly distorted or worn. Secure fixing to hub affected; secure fixing of tyre affected		X	X
		(d) Wheel size or type not in accordance with the requirements ⁽¹⁾ and effecting road safety		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
5.2.3. Tyres	Visual inspection of the entire tyre by either rotating the road wheel with it off the ground and the vehicle over a pit or on a hoist, or by rolling the vehicle backwards and forwards over a pit.	(a) Tyre size, load capacity, approval mark or speed rating not in accordance with the requirements ⁽¹⁾ and effecting road safety Insufficient load capacity or speed rating for actual use, tyre touches other fix vehicle parts impairing save driving		X	X
		(b) Tyres on same axle or on twin wheels of different sizes.		X	
		(c) Tyres on same axle of different construction (radial / cross-ply).		X	
		(d) Any serious damage or cut to tyre. Cord visible or damaged		X	X
		(e) Tyre tread wear indicator becomes visible Tyre tread depth not in accordance with the requirements ⁽¹⁾ .		X	X
		(f) Tyre rubbing against other components (flexible anti spray devices). Tyre rubbing against other components (save driving not impaired)	X	X	
		(g) Re-grooved tyres not in accordance with requirements ⁽¹⁾ . Cord protection layer affected		X	X
		(h) Air Tyre pressure monitoring system malfunctioning or tyre obviously underinflated Obviously inoperative	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
5.3. Suspension system					
5.3.1.Springs and stabilizer	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM.	(a) Insecure attachment of springs to chassis or axle. Relative movement visible Fixings very seriously loose		X	X
		(b) A damaged or fractured spring component. Main spring (-leaf), or additional leafs very seriously affected		X	X
		(c) spring missing Main spring (-leaf), or additional leafs very seriously affected		X	X
		(d) Unsafe modification ⁽³⁾ Insufficient clearance to other vehicle parts; spring system inoperative		X	X
5.3.2. Shock absorbers	Visual inspection with vehicle over a pit or on a hoist or using special equipment, if available.	(a) Insecure attachment of shock absorbers to chassis or axle. Shock absorber loose	X	X	
		(b) Damaged shock absorber showing signs of severe leakage or malfunction.		X	
5.3.2.1 efficiency testing of damping (X)(2)	Use special equipment and compare left /right differences	(a) significant difference between left and right		X	
		(b) given minimum values not reached		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
5.3.3. Torque tubes, radius arms, wishbones and suspension arms	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM.	(a) Insecure attachment of component to chassis or axle. Likely of loosening; directional stability impaired		X	X
		(b) A damaged or excessively corroded component. Stability of component affected or component fractured		X	X
		(c) Unsafe modification ⁽³⁾ . Insufficient clearance to other vehicle parts; system inoperative		X	X
5.3.4. Suspension joints	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM.	(a) Excessive wear in swivel pin and/or bushes or at suspension joints. Likely of loosening; directional stability impaired		X	X
		(b) Dust cover severely deteriorated. Dust cover missing or fractured	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
5.3.5. Air Suspension	Visual inspection	(a) System inoperable.			X
		(b) Any component damaged, modified or deteriorated in a way that would adversely affect the functioning of the system. Functioning of system seriously affected		X	X
		(c) audible system leakage		X	
6. CHASSIS AND CHASSIS ATTACHMENTS					
6.1. Chassis or frame and attachments					
6.1.1.General condition	Visual inspection with vehicle over a pit or on a hoist.	a) Slight fracture or deformation of any side or cross member. Serious fracture or deformation of any side or cross member.		X	X
		b) Insecurity of strengthening plates or fastenings. Majority of fastenings loose; insufficient strength of parts		X	X
		c) Excessive corrosion which affects the rigidity of the assembly. insufficient strength of parts		X	X
6.1.2. Exhaust pipes and silencers	Visual inspection with vehicle over a pit or on a hoist.	a) Insecure or leaking exhaust system.		X	
		b) Fumes entering cab or passengers compartment. Danger to health of persons on board		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
6.1.3. Fuel tank and pipes (including heating fuel tank and pipes)	Visual inspection with vehicle over a pit or on a hoist, use of leak detecting devices in case of LPG/CNG/LNG systems.	(a) Insecure tank or pipes, creating particular risk of fire			X
		(b) Leaking fuel or missing or ineffective filler cap. Risk of fire; excessive loss of hazardous material		X	X
		(c) chafed pipes. Damaged pipes	X	X	
		(d) Fuel stopcock (if required) not operating correctly.		X	
		(e) Fire risk due to leaking fuel fuel tank or exhaust improperly shielded engine compartment condition			X
		(f) LPG/CNG/LNG or hydrogen system not in accordance with requirements, any part of the system defective ⁽¹⁾ .			X
6.1.4. Bumpers, lateral protection and rear underrun devices	Visual inspection.	(a) Looseness or damage likely to cause injury when grazed or contacted. Parts likely to fall off; functionality heavily affected		X	X
		(b) Device obviously not in compliance with the requirements ⁽¹⁾ .		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
6.1.5. Spare wheel carrier (if fitted)	Visual inspection.	(a) Carrier not in proper condition	X		
		(b) Carrier fractured or insecure.		X	
		(c) A spare wheel not securely fixed in carrier Very serious risk to fall off.		X	X
6.1.6. Coupling mechanisms and towing equipment	Visual inspection for wear and correct operation with special attention to any safety device fitted and /or use of measuring gauge.	(a) Component damaged, defective or cracked (if not in use). Component damaged, defective or cracked (if in use)		X	X
		(b) Excessive wear in a component. Below wear limit		X	X
		(c) Attachment defective. Any attachment loose with a very serious risk to fall off.		X	X
		(d) Any safety device missing or not operating correctly.		X	
		(e) Any coupling indicator not working.		X	
		(f) Obstruct registration plate or any lamp (when not in use) Registration plate not readable (when not in use)	X	X	
		(g) Unsafe modification ⁽³⁾ (secondary parts) Unsafe modification ⁽³⁾ (primary parts)		X	X
		(h) Coupling too weak		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
6.1.7. Transmission	Visual inspection.	(a) Loose or missing securing bolts Loose or missing securing bolts to such an extent that road safety is seriously endangered		X	X
		(b) Excessive wear in transmission shaft bearings. Very serious risk of loosening or cracking		X	X
		(c) Excessive wear in universal joints or transmission chains/belts. Very serious risk of loosening or cracking		X	X
		(d) Deteriorated flexible couplings. Very serious risk of loosening or cracking		X	X
		(e) A damaged or bent shaft.		X	
		(f) Bearing housing fractured or insecure. Very serious risk of loosening or cracking		X	X
		(g) Dust cover severely deteriorated. Dust cover missing or fractured	X	X	
		(h) Illegal power-train modification		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
6.1.8. Engine mountings	Visual inspection not necessarily on a pit or hoist.	Deteriorated, obviously and severely damaged, loose or fractured mountings.		X	X
6.1.9 Engine performance (X) ⁽²⁾	Visual inspection and/or using electronic interface	(a) Control unit modified affecting safety and/or environment		X	
		(b) engine modification affecting safety and/or environment			X
6.2. Cab and bodywork					
6.2.1. Condition	Visual inspection	(a) A loose or damaged panel or part likely to cause injury. Likely to fall off		X	X
		(b) Insecure body pillar. Stability impaired		X	X
		(c) Permitting entry of engine or exhaust fumes. Danger to health of persons on board		X	X
		(d) Unsafe modification ⁽³⁾ . Insufficient clearance to rotating or moving parts and road		X	X
6.2.2. Mounting	Visual inspection over a pit or on a hoist.	(a) Body or cab insecure. Stability affected		X	X
		(b) Body/cab obviously not located squarely on chassis.		X	
		(c) Insecure or missing fixing of body/cab to chassis or cross members and if symmetrical Insecure or missing fixing of body/cab to chassis or cross members to such an extent that road safety is very seriously endangered.		X	X
		(d) Excessive corrosion at fixing points on integral bodies. Stability impaired		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
6.2.3. Doors and door catches	Visual inspection.	(a) A door will not open or close properly.		X	
		(b) A door likely to open inadvertently or one that will not remain closed.(sliding doors) A door likely to open inadvertently or one that will not remain closed.(turning doors)		X	X
		(c) Door, hinges, catches or pillar deteriorated. Door, hinges, catches or pillar missing or loose.	X	X	
6.2.4. Floor	Visual inspection over a pit or on a hoist.	Floor insecure or badly deteriorated Insufficient stability		X	X
6.2.5. Driver's seat	Visual inspection.	(a) Seat with defective structure. A loose seat or		X	X
		(b) Adjustment mechanism not functioning correctly. Seat moving or backrest not fixable		X	X
6.2.6. Other seats	Visual inspection.	(a) Seats in defective condition or insecure.(secondary parts) Seats in defective condition or insecure (main parts).	X	X	
		(b) Seats not fitted in accordance with requirements ⁽¹⁾ . Permitted number of seats exceeded; positioning not in compliance with approval	X	X	
6.2.7. Driving controls	Visual inspection and by operation.	Any control necessary for the safe operation of the vehicle not functioning correctly. Safe operation affected		X	X
6.2.8. Cab steps	Visual inspection.	(a) Step or step ring insecure. Insufficient stability	X	X	
		(b) Step or ring in a condition likely to cause injury to users.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
6.2.9. Other interior and exterior fittings and equipment	Visual inspection.	(a) Attachment of other fitting or equipment defective.		X	
		(b) Other fitting or equipment not in accordance with the requirements ⁽¹⁾ . Parts fitted likely to cause injuries; safe operation affected	X		
		(c) Leaking hydraulic equipment Extensive loss of hazardous material	X	X	
6.2.10. Mudguards (wings), spray suppression devices	Visual inspection.	(a) Missing, loose or badly corroded. Likely to cause injuries; likely to fall off	X	X	
		(b) Insufficient clearance to road wheel (spray suppression). Insufficient clearance to road wheel.(mudguards)	X	X	
		(c) Not in accordance with the requirements ⁽¹⁾ . Insufficient coverage of tyre-band	X	X	
6.2.11 Stand	Visual inspection.	a) Missing, loose or badly corroded.		X	
		b) Not in accordance with the requirements ⁽¹⁾		X	
		c) Risk of unfolding when the vehicle is in motion			X
6.2.12 Handgrips and footrests	Visual inspection.	a) Missing, loose or badly corroded.		X	
		b) Not in accordance with the requirements ⁽¹⁾		X	
7. OTHER EQUIPMENT					
7.1. Safety-belts/buckles and restraint systems					
7.1.1. Security of safety-belts/buckles mounting	Visual inspection.	(a) Anchorage point badly deteriorated. Stability affected		X	X
		(b) Anchorage loose		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
7.1.2. Condition of safety-belts/buckles.	Visual inspection and by operation.	(a) Mandatory safety-belt missing or not fitted.		X	
		(b) Safety-belt damaged. Any cut or sign of overstretching	X	X	
		(c) Safety-belt not in accordance with the requirements ⁽¹⁾ .		X	
		(d) Safety-belt buckle damaged or not functioning correctly.		X	
		(e) Safety-belt retractor damaged or not functioning correctly.		X	
7.1.3. Safety belt Load limiter	Visual inspection, and/or using electronic interface	Load limiter obviously missing or not suitable with the vehicle		X	
		System indicates failure via the electronic vehicle interface		X	
7.1.4. Safety belt Pre-tensioners	Visual inspection, and/or using electronic interface	Pre-tensioner obviously missing or not suitable with the vehicle		X	
		System indicates failure via the electronic vehicle interface		X	
7.1.5. Airbag	Visual inspection, and/or using electronic interface	(a) Airbags obviously missing or not suitable with the vehicle. System indicates failure via the electronic vehicle interface		X X	
		(b) Airbag obviously non operative		X	
7.1.6. SRS Systems	Visual inspection of MIL, and/or using electronic interface	SRS MIL indicates any kind of failure of the system		X	
		System indicates failure via the electronic vehicle interface		X	
7.2. Fire extinguisher (X)(2)	Visual inspection.	(a) Missing.		X	
		(b) Not in accordance with the requirements ⁽¹⁾ .	X		
		If required (e.g. Taxi, busses, coaches, etc)		X	
7.3. Locks and anti-theft device	Visual inspection and by operation	(a) Device not functioning to prevent vehicle being driven.	X		
		(b) Defective inadvertently locking or blocking		X	X

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
7.4. Warning triangle (if required) (X) ⁽²⁾	Visual inspection.	(a) Missing or incomplete.	X		
		(b) Not in accordance with the requirements ⁽¹⁾ .	X		
7.5. First aid kit. (if required) (X)(2)	Visual inspection.	Missing, incomplete or not in accordance with the requirements ⁽¹⁾ .	X		
7.6. Wheel chocks (wedges) (if required) (X)(2)	Visual inspection.	Missing or not in good condition, insufficient stability or dimension		X	
7.7. Audible warning device	Visual inspection and by operation	(a) Not properly working. Not working at all	X	X	
		(b) Control insecure.	X		
		(c) Not in accordance with the requirements ⁽¹⁾ . Emitted sound likely to be mixed with official sirens	X	X	
7.8.Speedometer	Visual inspection or by operation during road test or by electronical means.	(a) Not fitted in accordance with the requirements ⁽¹⁾ . Missing if required	X	X	
		(b) operation impaired. Not operational at all	X	X	
		(c) Not capable of being sufficient illuminated. Not being illuminated at all	X	X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
7.9.Tachograph (if Fitted/required)	Visual inspection.	(a) Not fitted in accordance with the requirements ⁽¹⁾ .		X	
		(b) Not operational.		X	
		(c) Defective or missing seals.		X	
		(d) Calibration plaque missing, illegible or out of date.		X	
		(e) Obvious tampering or manipulation.		X	
		(f) Size of tyres not compatible with calibration parameters		X	
7.10. Speed limitation device (if fitted/required)	Visual inspection and by operation if equipment available.	(a) Not fitted in accordance with the requirements ⁽¹⁾ .		X	
		(b) Obviously not operational.		X	
		(c) Incorrect set speed (if checked)		X	
		(d) Defective or missing seals.		X	
		(e) Plaque missing or illegible.		X	
		(f) size of tyres not compatible with calibration parameters		X	
7.11 Odometer if available (X)(2)	Visual inspection, and/or using electronic interface	(a) obviously manipulated (fraud) to reduce the distance record or to misrepresent the distance record of a vehicle		X	
		(b) obviously inoperative		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
7.12 Electronic Stability Control (ESC) if fitted/required	Visual inspection, and/or using electronic interface	(a) Wheel speed sensors missing or damaged		X	
		System indicates failure via the electronic vehicle interface		X	
		(b) Wirings damaged		X	
		(c) Other components missing or damaged		X	
		(d) Switch damaged or not functioning correctly		X	
		(e) ESC MIL indicates any kind of failure of the system		X	

Item	Method	Reasons for failure		Assessment of deficiencies		
				Minor	Major	Dangerous
8. NUISANCE						
8.1. Noise						
8.1.1 Noise suppression system	Subjective evaluation (unless the inspector considers that the noise level may be borderline, in which case a standing noise test using a noise meter may be conducted)	(a)	Noise levels in excess of those permitted in the requirements ⁽¹⁾ .		X	
		(b)	Any part of the noise suppression system loose, damaged, incorrectly fitted, missing or obviously modified in a way that would adversely affect the noise levels.		X	
		Very serious risk to fall off				X
8.2. Exhaust emissions						
8.2.1 Petrol engine emissions						
8.2.1.1 Exhaust emissions control equipment	Visual inspection	(a)	Emission control equipment fitted by the manufacturer absent, modified or obviously defective.		X	
		(b)	Leaks which would affect emission measurements		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
8.2.1.2 Gaseous emissions	Measurement using an exhaust gas analyser in accordance with the requirements(1) or reading of OBD. Measurements not applicable for two-stroke engines.	(a) Either, gaseous emissions exceed the specific levels given by the manufacturer;		X	
		(b) Or, if this information is not available, the CO emissions exceed, i) for vehicles not controlled by an advanced emission control system, – 4.5%, or – 3.5% according to the date of first registration or use specified in requirements ⁽¹⁾ . ii) for vehicles controlled by an advanced emission control system, – at engine idle: 0.5% – at high idle: 0.3% or – at engine idle: 0.3% ⁷ – at high idle: 0.2% according to the date of first registration or use specified in requirements ⁽¹⁾ .		X	
		(c) Lambda coefficient outside the range 1 ± 0.03 or not in accordance with the manufacturer's specification		X	

⁷ Type-approved according to limits in row A or B section 5.3.1.4. of Annex I to Directive 70/220/EEC or first registered or put into service after 1 July 2002.

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
		(d) OBD readout indicating significant malfunction		X	
8.2.2 Diesel engine emissions					
8.2.2.1 Exhaust emission control equipment	Visual inspection	(a) Emission control equipment fitted by the manufacturer absent or obviously defective		X	
		(b) Leaks which would affect emission measurements		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
8.2.2.2 Opacity Vehicles registered or put into service before 1 January 1980 are exempted from this requirement	(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 or reading of OBD.	(a) For vehicles registered or put into service for the first time after the date specified in requirements ⁽¹⁾ , opacity exceeds the level recorded on the manufacturer's plate on the vehicle;		X	
	(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. precondition 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	(b) Where this information is not available or requirements ⁽¹⁾ do not allow the use of reference values, for naturally aspirated engines: 2.5 m ⁻¹ , for turbo-charged engines: 3.0 m ⁻¹ , or, for vehicles identified in requirements ⁽¹⁾ or first registered or put into service for the first time after the date specified in requirements ⁽¹⁾ , 1.5 m ⁻¹ . ⁸		X	

⁸ Type approved according to limits in row B section 5.3.1.4. of Annex I to Directive 70/220/EEC as amended by Directive 98/69/EC or later; row B1, B2 or C section 6.2.1 of Annex I to Directive 88/77/EEC or first registered or put into service after 1 July 2008.

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
	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. 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. 2. 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. 3. 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				

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
	throttle depression and release, which in the case of vehicles of category M2, M3, N2 and N3, should be at least two seconds. 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. 5.To avoid unnecessary testing, Member States may 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. Equally to avoid unnecessary testing, Member States may pass vehicles which have measured values significantly below the limits after less than three free acceleration cycles or after the purging cycles				

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
8.3 Electromagnetic interference suppression					
Radio-interference (X) ⁽²⁾		Any requirements of the requirements ⁽¹⁾ not met.	X		
8.4 Other items related to the environment					
8.4.1 Fluid leaks		Any excessive fluid leak, other than water, likely to harm the environment or to pose a safety risk to other road users		X	
		Steady formation of drops that constitutes a very serious risk			X
9. SUPPLEMENTARY TESTS FOR PASSENGER CARRYING VEHICLES M2, M3					
9.1. Doors					
9.1.1 Entrance and exit doors	Visual inspection and by operation.	(a) Defective operation		X	
		(b) Deteriorated condition	X		
		Likely to cause injuries		X	
		(c) Defective emergency control		X	
		(d) Remote control of doors or warning devices defective		X	
9.1.2 Emergency exits	Visual inspection and by operation (where appropriate)	(e) Not in accordance with the requirements ⁽¹⁾ .	X		
		Insufficient door width		X	
		(a) defective operation		X	
		(b) Emergency exits signs illegible	X		
		Emergency exits signs missing			
		(c) Missing hammer to break glass	X		
		(d) Not in accordance with requirements ⁽¹⁾ .	X		
		Insufficient width or access blocked		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
9.2. Demisting and defrosting system (X) ⁽²⁾	Visual inspection and by operation	(a) Not operating correctly Affecting safe operation of vehicle	X		
		(b) Emission of toxic or exhaust gases into driver's or passenger compartment Danger to health of persons on board		X	X
		(c) Defective defrosting (if compulsory)		X	
9.3. Ventilation & heating system (X)(2)	Visual inspection and by operation	(a) Defective operation Risk to health of persons on board	X		
		(b) Emission of toxic or exhaust gases into driver's or passenger compartment Danger to health of persons on board		X	X
9.4. Seats					
9.4.1 Passenger seats (including seats for accompanying personnel)	Visual inspection	Folding seats (if allowed) not working automatically blocking an emergency exit	X		
9.4.2.Driver's seat (additional requirements)	Visual inspection	a) Defective special devices such as anti-glare shield field of vision impaired	X		
		b) Protection for driver insecure or not in accordance with requirements ⁽¹⁾ . Likely to cause injuries	X		
				X	
9.5. Interior lighting and destination devices (X) ⁽²⁾	Visual inspection and by operation	Device defective or not in accordance with requirements ⁽¹⁾ . Not operational at all	X		

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
9.6. Gangways, standing areas	Visual inspection	(a) Insecure floor. Stability affected		X	X
		(b) Defective rails or grab handles. Insecure or un-useable	X	X	
		(c) Not in accordance with the requirements ⁽¹⁾ . Insufficient width or space	X	X	
		9.7. Stairs and steps	Visual inspection and by operation (where appropriate)	(a) Deteriorated condition damaged condition stability affected	X
(b) Retractable steps not operating correctly				X	
	(c) Not in accordance with requirements ⁽¹⁾ . Insufficient width or exceeding height		X	X	
9.8. Passenger communication system (X)(2)	Visual inspection and by operation.	Defective system Not operational at all	X	X	
9.9. Notices (X)(2)	Visual inspection.	(a) missing, erroneous or illegible notice	X		
		(b) not in accordance with requirements ⁽¹⁾ . False information	X	X	
9.10. Requirements regarding the transport of children. (X) ⁽²⁾					
9.10.1 Doors	Visual inspection	Protection of doors not in accordance with the requirements ⁽¹⁾ regarding this form of transport		X	
9.10.2 Signalling and special equipment	Visual inspection	Signalling or special equipment absent or not in accordance with requirements ⁽¹⁾	X		

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
9.11. Requirements regarding the transport of disabled persons (X) ⁽²⁾					
9.11.1 Doors, ramps and lifts	Visual inspection and operation	(a) Defective operation. Safe operation affected	X		
		(b) Deteriorated condition. Stability affected; likely to cause injuries	X	X	
		(c) Defective control(s). Safe operation affected	X	X	
		(d) Defective warning device(s). Not operating at all	X	X	
		(e) Not in accordance with the requirements ⁽¹⁾ .		X	
		9.11.2 Wheelchair restraint system	Visual inspection and by operation if appropriate	(a) Defective operation. Safe operation affected	X
(b) Deteriorated condition. Stability affected; likely to cause injuries	X			X	
	(c) Defective control(s). Safe operation affected		X	X	
	(d) Not in accordance with the requirements ⁽¹⁾ .			X	
	9.11.3 Signalling and special equipment		Visual inspection	Signalling or special equipment absent or not in accordance with requirements ⁽¹⁾ .	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
9.12. Other special equipment (X) ⁽²⁾					
9.12.1. Installations for food preparation	Visual inspection	(a) installation not in accordance with the requirements ⁽¹⁾ .		X	
		(b) installation damaged to such an extent that it would be dangerous to use it.		X	
9. 12.2.Sanitary installation	Visual inspection	Installation not in accordance with the requirements ⁽¹⁾ . likely to cause injuries	X	X	
9.12.3.Other devices (e.g. audio-visual systems)	Visual inspection	Not in accordance with the requirements ⁽¹⁾ . Safe operation of vehicle affected	X	X	

NOTES:

- (1) 'requirements' are laid down by type-approval at the date of approval, first registration or first entry into service as well as by retrofitting obligations or by national legislation in the country of registration. These reasons for failure apply only when compliance with requirements has been checked.
- (2) (X) identifies items which are related to the condition of the vehicle and its suitability for use on the road but which are not considered essential in a roadworthiness test.
- (3) Unsafe modification means a modification that adversely affects the road safety of the vehicle or has a disproportionate effect on the environment.

ANNEX III

[Has been merged with Annex II]

ANNEX IV

MINIMUM CONTENTS OF A ROADWORTHINESS CERTIFICATE

The roadworthiness certificate issued following a roadworthiness test shall cover at least the following elements preceded by the corresponding harmonised Union codes:

- (1) Vehicle Identification Number (VIN number or chassis number)
- (2) Registration plate number of the vehicle and country symbol of the State of registration
- (3) Place and date of the test
- (4) Odometer reading at the time of the test, if available
- (5) Vehicle category if available
- (6) Identified deficiencies and their category
- (7) Result of the roadworthiness test
- (8) Date of next roadworthiness test or expiry of current certificate, if this information is not provided by other means
- (9) Name of testing organisation or centre and signature or identification of the inspector responsible for the test
- (10) Other information

ANNEX V

MINIMUM REQUIREMENTS CONCERNING ROADWORTHINESS FACILITIES AND TEST EQUIPMENT

I – Facilities and equipment

Roadworthiness tests undertaken in accordance with the recommended methods specified in Annex II shall be carried out by using appropriate facilities and equipment. This may include, where applicable, the use of mobile test units. The test equipment that necessary, depends on the vehicle categories to be tested, as described in Table I. Facilities and equipment shall comply with the following minimum requirements:

- 1) A test facility with adequate space for the evaluation of vehicles and which meets the necessary health and safety requirements;
- 2) A test lane of sufficient size for each test, a pit or lift and for vehicles up to 3.5 tons device to lift a vehicle on one of the axles, equipped with appropriate lighting and, where necessary, with aeration devices;
- 3) For testing any vehicle, a roller brake tester capable of measuring, displaying and recording the braking forces and the air-pressure in air brake systems according to Annex A of standard ISO 21069-1 on the technical requirements of roller brake tester or equivalent standards;
- 4) For testing vehicles up to 3.5 tons, a roller brake tester according to item 3, which may not include the recording braking forces, pedal force and the air-pressure in air brake systems and their display;

or

A plate brake tester equivalent to the roller brake tester according to item 3, which may not include the recording capability of the braking forces, pedal force and the display of air-pressure at air brake systems;

- 6) A deceleration recording instrument, while non-continuous measurement instruments must record/store measurements at least 10 times per second;
- 7) Facilities for the testing of air brake systems, such as manometers, connectors and hoses;
- 8) A wheel/axle load measuring device to determine the axle loads (optional facilities for measuring of two wheel loads, such as wheel weight pads and axle weight pads);
- 9) A device for testing the wheel-axle suspension (wheel play detector) without lifting the axis, which shall meet the following requirements:
 - (a) The device must be equipped with at least two power-operated plates that can be moved in opposite sense both in the longitudinal and transversal directions;
 - (b) The movement of the plates must be controllable by the operator from the testing position;

(c) For vehicles over 3.5 tons, the plates shall comply with the following technical requirements:

- Longitudinal and transversal movement of at least 95 mm,
- Longitudinal and transversal movement speed 5 cm / s to 15 cm / s;

- 11) A sound level meter Class II, if sound level is measured;
- 12) A 4-gas analyser according to Directive 2004/22/EC on measuring instruments⁹;
- 13) A device for measurement of the absorption coefficient with sufficient accuracy;
- 14) One headlamp aiming device, that allows the test of the setting of the headlight according to the provisions for the setting of headlights of motor vehicles (Directive 76/756/EEC), the light / dark boundary must be easily recognizable in daylight (without direct sunlight);
- 15) A device for measuring the tread depth of tyres;
- 17) A device to connect to the electronic vehicle interface, such as an OBD scan tool;
- 18) A device to detect LPG/CNG/LNG leakage, if such vehicles are tested.

Any above devices can be combined into one device, on the condition that it does not interfere in the accuracy of each device.

II - Calibration of equipment used for measurements

Unless specified otherwise by the relevant European legislation, the interval between two successive calibrations may not exceed:

- (i) 24 months for the measurement of weight, pressure and sound level,
- (ii) 24 months for the measurement of forces,
- (iii) 12 months for the measurement of gaseous emissions.

⁹ JO L 135, 30.4.2004, p.1.

TABLE I

Minimum equipment required for the purpose of performing a roadworthiness test																					
Vehicles	Maximum mass	Category		Equipment required for each item listed in Paragraph I																	
				1	2	3	4 ₁₀	[...]	6	7	8	9	[...]	11	12	13	14	15	[...]	17	18
1. motorcycles ¹¹			I																		
		L1e	P	x										x	x		x	x		x	
		L3e,L4e	P	x										x	x		x	x		x	
		L3e,L4e	D	x										x		x	x	x		x	
		L2e	P	x	x									x	x		x	x		x	
		L2e	D	x	x									x		x	x	x		x	
		L5e	P	x	x									x	x		x	x		x	
		L5e	D	x	x									x		x	x	x		x	
		L6e	P	x	x									x	x		x	x		x	
		L6e	D	x	x									x		x	x	x		x	
		L7e	P	x	x									x	x		x	x		x	
		L7e	D	x	x									x		x	x	x		x	
2. vehicles for carriage of persons																					
	Up to 3500 kg	M1,M2	P	x	x		x							x	x		x	x		x	x
	Up to 3500 kg	M1,M2	D	x	x		x							x		x	x	x		x	
	› 3500 kg	M2,M3	P	x	x	x			x	x	x	x		x	x		x	x		x	x
	› 3500 kg	M2,M3	D	x	x	x			x	x	x	x		x		x	x	x		x	
vehicles for carriage of goods																					
	Up to 3500 kg	N1	P	x	x		x							x	x		x	x		x	x
	Up to 3500 kg	N1	D	x	x		x							x		x	x	x		x	
	› 3500 kg	N2,N3	P	x	x	x			x	x	x	x		x	x		x	x		x	x
	› 3500 kg	N2,N3	D	x	x	x			x	x	x	x		x		x	x	x		x	

¹⁰ IT is against the exclusion of L category vehicles from the scope of this Directive.

¹¹ The vehicle categories which are out of the scope of this Directive are included for guidance.

Vehicles		Category	Equipment required for each item listed in Paragraph I																			
Special vehicles derived from a category N vehicle, T5																						
	Up to 3500 kg	N1	P	x	x		x							x	x		x	x		x	x	
	Up to 3500 kg	N1	D	x	x		x							x		x	x	x		x		
	> 3500 kg	N2,N3, T5	P	x	x	x			x	x	x	x		x	x		x	x		x	x	
	> 3500 kg	N2,N3, T5	D	x	x	x			x	x	x	x		x		x	x	x		x		
3. Trailer ¹²	Up to 750 kg	O1		x															x			
	> 750 to 3500 kg	O2		x	x		x												x			
	> 3500 kg	O3,O4		x	x	x			*	x	x	x							x			

1) P...petrol ; D...Diesel

¹² The vehicle categories which are out of the scope of this Directive are included for guidance.

ANNEX VI

MINIMUM REQUIREMENTS CONCERNING THE COMPETENCE, TRAINING AND CERTIFICATION OF INSPECTORS

1. Competence

Before authorising an applicant for a position as inspector to carry out periodic roadworthiness tests, Member States or competent authorities shall verify that that person:

- (a) has a certified knowledge and understanding related to road vehicle in the following areas:
 - Mechanics.
 - Dynamics.
 - Vehicle dynamics.
 - Combustion engines.
 - Material and material processing.
 - Electronics.
 - Electrics.
 - Electronic vehicle components.
 - IT applications.
- (b) has at least three years of documented experience, or equivalent such as documented mentorship or studies, and appropriate training in the above road vehicle field,

2. Initial and refresher training

Member States or competent authorities shall ensure that inspectors receive the appropriate initial and refresher training or appropriate examination, including theoretical and practical elements, for being authorised to carry out roadworthiness tests.

The minimum contents of the initial and refresher training or appropriate examination shall include the following topics:

- (a) Initial training or appropriate examination

The initial training provided by the Member State or by an authorised training centre of the Member State shall include at least the following topics:

- (i) Vehicle technology:
 - Braking systems,

- Steering systems,
 - Fields of vision,
 - Light installation, lighting equipment and electronic components,
 - Axles, wheels and tyres,
 - Chassis and bodywork,
 - Nuisance and emissions,
 - Additional requirements for special vehicles,
- (ii) Testing methods;
- (iii) Assessment of deficiencies;
- (iv) Legal requirements applicable on the vehicle condition for approval;
- (v) Legal requirements related to roadworthiness testing;
- (vi) Administrative provisions related to vehicle approval, registration and roadworthiness testing;
- (vii) IT applications related to testing and administration.

(b) Refresher training or appropriate examination

Member States shall ensure that inspectors receive regularly a refresher training or an appropriate examination provided by the Member State or by an authorised training centre of the Member State.

Member States shall ensure that the contents of the refresher training or appropriate examination enables to maintain and refresh the necessary knowledge and skills of inspectors on the topics referred to in point (a), (i) to (vii) above.

3. Certificate of competence

The certificate, or equivalent documentation, issued to an inspector authorised to carry out roadworthiness tests, shall include at least the following information:

- Identification of the inspector (first name, surname);
- Vehicle categories for which the inspector is authorised to carry out roadworthiness tests;
- Name of issuing authority;
- Date of issue.

ANNEX VII

SUPERVISING BODIES

Rules and procedures concerning supervising bodies established by Member States in accordance with Article 13 shall cover the following minimum requirements:

1. Tasks and activities of the supervising bodies

Supervising bodies shall perform at least the following tasks:

- (a) Supervision of testing centres:
 - verifying if the minimum requirements for premises and test equipment are met;
 - verifying the mandatory requirements of the authorised entity;
- (b) Verifying training and examination of inspectors:
 - verifying the initial training of inspectors;
 - verifying the periodic refresher training of inspectors;
 - periodic refresher training of supervising body examiners;
 - conducting or supervising examination.
- (c) Auditing:
 - pre-audit of testing centre prior to authorisation;
 - periodic re-audit of testing centre;
 - special audit in case of irregularities;
 - audit of training/examination centre.
- (d) Monitoring, using measures such as the following:
 - re-testing of a statistically valid proportion of tested vehicles;
 - mystery shopper checks (use of defective vehicle optional);
 - analysis of results of roadworthiness tests (statistical methods);
 - appeal tests;
 - investigation of complaints.
- (e) Validation of measurement results of roadworthiness tests

- (f) Proposal of withdrawal or suspension of authorisation of testing centres and/or of inspectors authorisation:
- lacking in significant authorisation requirement;
 - detected major irregularities;
 - continued negative audit results;
 - loss of good repute.

2. Requirements concerning the supervising body

Requirements applicable to the personnel employed by a supervising body shall cover the following areas:

- technical competence;
- impartiality;
- standards for qualification and training.

3. Contents of the rules and procedures

Each Member State or its competent authority shall establish the rules and procedures which shall include at least the following items :

- (a) Requirements concerning the authorisation and supervision of testing centres:
- application to become a testing centre;
 - responsibilities of the testing centre;
 - pre-authorisation visit, or visits, to verify that all requirements are complied with;
 - authorisation of a testing centre;
 - periodic re-testings/audits of testing centres;
 - periodic checks of testing centres for continued compliance;
 - evidence based unannounced special checks or audits of testing centres;
 - analysis of test data for evidence of non-compliance;
 - withdrawal or suspension of authorisations granted to testing centres.

- (b) Inspectors of testing centres:
- requirements to become an inspector;
 - initial training and refresher training and examination;
 - withdrawal or suspension of inspectors certification.
- (c) Equipment and premises:
- requirements for test equipment;
 - requirements for testing premises;
 - requirements for signage;
 - requirements for maintenance and calibration of testing equipment;
 - requirements for computerised systems.
- (d) Supervising bodies:
- powers of the supervising bodies;
 - requirements for staff of supervising bodies;
 - appeals and complaints.
-