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ANNEXES 1 to 2

Roadworthiness package

ANNEXES

to the proposal for a Directive of the European Parliament and of the Council amending Directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers and Directive 2014/47/EU on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Union

{SEC(2025) 119 final} - {SWD(2025) 96 final} - {SWD(2025) 97 final} -
{SWD(2025) 98 final} - {SWD(2025) 99 final}

ANNEX I

Annexes I, III and IV to Directive 2014/45/EU are amended as follows:

(1) Annex I is amended as follows:

(a) in point 1, the second paragraph is replaced by the following:

'The test must cover at least the items listed in point 3 provided that the systems and components are fitted to the vehicle. The test may also include a verification as to whether the relevant parts and components of that vehicle correspond to the required safety and environmental characteristics that were in force at the time of approval or, where applicable, at the time of retrofitting.';

(b) in point 2, the following point is added:

'(10) Electronic safety systems.';

(c) point 3 is amended as follows:

(i) the heading and the introduction are replaced by the following:

'3. CONTENTS AND METHODS OF TESTING, REASONS FOR FAILURE, AND 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 table set out in this point.

The components and systems of the vehicle shall be inspected visually or by means of the electronic interface, or both, where applicable, using the following inspection criteria:

(a) the inspection of the fitment includes the evaluation of any relevant diagnostic trouble codes and an examination of whether the fitted systems and components comply for example, with the following:

- the given design, specified attachment/number, specified circuit, required marking;
- the valid software version including the integrity feature;

(b) the inspection of the condition includes an examination of whether the fitted systems and components are for example:

- damaged, corroded, or aged;
- properly fastened, secured, assembled, and routed;
- operating freely and easily;
- indicating failure via the malfunction indicator lamp (MIL) or, where applicable, via the on-board monitoring (OBM) system;
- ready to be inspected (readiness);

(c) the inspection of the functioning includes an examination of the actuation and/or activation including that of the pedals, levers, switches, or operating devices, which initiate an action and of the electronically controlled systems and components, for example, actuators, to ensure that they are operating correctly in terms of timing and function;

(d) the inspection of the performance and efficiency is a metrological inspection of a component or system for compliance with, or achievement of, specified limit values, which may also include calculation, such as the following:

– testing the brakes on a brake tester and calculating the efficiency (where applicable by means of reference values);

– activation of a safety system and evaluating sensor values and/or measuring the performance with external test equipment.

As regards electronic periodic technical inspection (ePTI) using the electronic vehicle interface, an ePTI system list is defined in EN ISO 20730-3:2021. Those electronic safety systems are referred to in item 10 of the table set out in this point.

For each vehicle system and component subject to testing, the assessment of deficiencies is to be carried out, on a case-by-case basis in accordance with the criteria laid down in the table set out in this point.

Deficiencies not listed in this Annex shall be assessed in terms of the risks that they pose to road safety.';

(ii) in the table, items 1.1.3 to 1.1.6 are replaced by the following:

'

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. Brake application means depression of the brake pedal/lever which allows the full flow of air/fluid application pressure to the brake assemblies.	(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 require-ments[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. Air leak causing a critical drop in pressure.		X 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 device	Functional check	Malfunctioning or defective warning device. 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, defective fixing, or leaks in system.		X	
		(d) Unsatisfactory operation.		X	

1.1.6. Parking brake (activator, lever control, parking brake ratchet)	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	

’;

(iii) in the table, item 1.1.13 is replaced by the following:

‘

1.1.13. Brake linings and pads	Visual inspection.	(a) Lining or pad excessively worn (minimum 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, or of obviously incorrect type.			X
		(d) Wear indicator electrical harness disconnected or damaged	X		

’;

(iv) in the table, item 1.1.18 is replaced by the following:

‘

1.1.18. Slack adjusters and indicators	Visual inspection of the components while the braking system is operated, if possible.	(a) Adjuster damaged, seized or having abnormal movement, excessive wear, or incorrect adjustment.		X	
		(b) Adjuster defective.		X	
		(c) Incorrectly installed or replaced.		X	

’;

(v) in the table, item 1.1.19 is deleted;

(vi) in the table, item 1.1.23 is replaced by the following:

‘

1.1.23. Overrun brake	Visual inspection and by operation	(a) Not working properly, for example, stroke of the drawbar exceeds 2/3 of the total overrun travel		X	
		(b) Breakaway cable defect or missing		X	

’;

(vii) in the table, items 1.2.1 and 1.2.2 are replaced by the following:

‘

1.2.1. Performance	During a test on a brake tester or, if impossible, during a road test, apply the brakes progressively up to maximum effort. It must be ensured, where possible, that the mechanical service brakes are inspected without interference/blending of regenerative braking or other continuous braking.	(a) Inadequate braking effort on one or more wheels. Or, in the case of testing on the road, the vehicle deviates excessively from a straight line and/or excessive vibration is produced at the service brake pedal/lever. No braking effort on one or more wheels.		X X	 X
		(b) Braking effort from any wheel is less than 70 % of the 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 the maximum effort recorded from the other wheel on the same axle in the 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	

1.2.2. Efficiency	Test with a brake tester or, if one cannot be used for technical reasons, by a road test using a deceleration recording instrument to establish the braking ratio which relates (a) to the maximum authorised mass or, (b) in the case of semi-trailers, to the sum of the authorised axle loads, or (c) to reference values. Vehicles or a trailer with a maximum permissible mass exceeding 3,5 tonnes must be inspected following the standards given by ISO 21069 or equivalent methods. For vehicles not inspected following the standards given by ISO 21069 or equivalent methods, if the minimum figure of braking ratio is not achieved, at least meaningful brake testing must be performed. Meaningful brake testing is performed if brake efficiency is below the service, secondary or parking values prescribed in 1.2.2 or 1.3.2 or 1.4.2 but all the following conditions are met: — the braking system is in good condition with no obvious defects, — wheels of all axles lock because adhesion between the tyre and brake tester surface was exhausted during the brake test; if wheels on some axles do not lock, it must be safely concluded that the braking efficiency values prescribed in 1.2.2 or 1.3.2 or 1.4.2 would be achieved when the vehicle is loaded, — brake actuation level by the inspector must always be proportional to the current load of the axle. Information on system values may be	Does not give at least the minimum figure as follows ([1]): 1. Vehicles registered for the first time after 1/1/2012: — Category M_1: 58 % — Categories M_2 and M_3: 50 % — Category N_1: 50 % — Categories N_2 and N_3: 50 % — Categories O_2, O_3 and O_4: — for semi-trailers: 45 % ([2]) — for draw-bar trailers: 50 %		X	
		2. Vehicles registered for the first time before 1/1/2012: — Categories M_1, M_2 and M_3: 50 % ([3]) — Category N_1: 45 % — Categories N_2 and N_3: 43 % ([4]) — Categories O_2, O_3 and O_4: 40 % ([5])		X	
		3. Other categories Categories L (both brakes together): — Category L1e: 42 % — Categories L2e, L6e: 40 % — Category L3e: 50 % — Category L4e: 46 % — Categories L5e, L7e: 44 % Category L (rear wheel brake): all categories: 25 % of the total vehicle mass Category T: 40% Less than 50 % of the above values reached.		X	X

	retrieved using electronic vehicle interface. Road tests should be carried out under dry conditions on a flat, straight road. In cases where vehicles of R or T category are tested on the road, meaningful brake testing is performed if all the above conditions are met. In case of doubt, the braking efficiency shall be demonstrated in loaded or partially loaded condition.				

’;

(viii) in the table, item 1.3.1 is replaced by the following:

‘

1.3.1. Performance	If the secondary braking system is separate from the service braking system, use the method specified in 1.2.1. It must be ensured that, where possible, the mechanical brakes are inspected without interference/blending of regenerative braking or other continuous braking.	(a) Inadequate braking effort on one or more wheels.		X	
		No braking effort on one or more wheels.			X
		(b) Braking effort from any wheel is less than 70 % of the 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.		X	
		Braking effort from any wheel is less than 50 % of the maximum effort recorded from the other wheel on the same axle in the case of steered axles.			X
		(c) No gradual variation in brake effort (grabbing).		X	

’;

(ix) in the table, item 1.4.1 is replaced by the following:

‘

1.4.1. Performance	Apply the brake during a test on a brake tester or by road test.	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 braking effort values as referred to in point 1.4.2 reached in relation to the vehicle mass during testing.		X	X

’;

(x) in the table, item 1.5 is replaced by the following:

‘

1.5. Endurance braking system performance	Visual inspection and, where possible, test whether the system functions, i.e. by road test.	(a) Malfunction indicator indicates a fault.		X	
		(b) System not functioning.		X	

’;

(xi) in the table, item 1.6 is deleted;

(xii) in the table, item 1.7 is replaced by the following:

‘

1.7. Electric regenerative braking	Visual inspection of the indicator of electric regenerative braking, and, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, by using the electronic vehicle interface, or by road test.	(a) Warning device indicates malfunctioning.		X	
		(b) The system does not noticeably decelerate the vehicle, or the charge indicator (if fitted) does not display “on charge” when regeneration is activated.		X	
		(c) Vehicle interface indicates system malfunction.		X	

’;

(xiii) in the table, item 2.6 is deleted;

(xiv) in the table, items 4.1.1, 4.1.2 and 4.1.3 are replaced by the following:

‘

4.1.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source. Multiple light sources (in the case of LED, up to 1/3 not functioning).	X		
		Seriously affected visibility.		X	
		(b) Slightly defective projection system (reflector and lens).	X		
		Heavily defective or missing projection system (reflector and lens).		X	
		(c) Lamp not securely attached.		X	
		(d) System indicates failure for example via the electronic vehicle interface.		X	
4.1.2. Alignment	Determine the horizontal and vertical aim of each headlamp on dipped beam using a headlamp aiming device.	(a) Aim of a headlamp not within limits laid down in the requirements[1]. If there are no specific requirements, the following reference values shall be used, where h is the height of headlamp (lowest point of the light-emitting surface): (i) M,N,O categories (Regulation No 48 UN/ECE [2016/1723], point 6.2.6.1.2): — h ≤ 0,8m: upper limit -0.5%; lower limit -2.5% — 0.8 < h ≤ 1m: upper limit -0.5%; lower limit -3% — h > 1m: upper limit -1% e inferior -3% — h > 1.2m, category N3G (all-terrain): upper limit -1.5%; lower limit -3.5% (ii) L category (Commission Delegated Regulation (EU) No 3/2014 and Regulation No 53 UN/ECE): — upper limit -0.5% — h ≤ 0,8m: lower limit -2,5% — h > 0.8m: lower limit -3,0% (-2,5% on L3e category) (iii) T category (Regulation No 86 UN/ECE):		X	

		— upper limit -0.5% — h ≤ 1,2m: lower limit -4% h > 1,2m: lower limit -6%			

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		
		Maximum permitted light brightness to the front exceeded.		X	
		(b) Function of control device impaired.		X	

’;

(xv) in the table, item 4.1.5 is replaced by the following:

‘

4.1.5. Manual levelling devices (where mandatory)	Visual inspection and by operation, if possible, or using the electronic vehicle interface.	(a) Device not operating.		X	
		(b) device cannot be operated from driver's seat.		X	

’;

(xvi) in the table, item 4.2.1 is replaced by the following:

‘

4.2.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source			
		Multiple light sources (in the case of LED, up to 1/3 not functioning); one of several lateral light sources defective.	X		
		Seriously affected visibility (in the case of LED, less than 2/3 functioning).		X	
		(b) Defective lens.		X	
		(c) Lamp not securely attached.	X		
		Very serious risk of falling off.		X	

’;

(xvii) in the table, items 4.3.1 and 4.3.2 are replaced by the following:

‘

4.3.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source. Multiple light sources; in the case of LED up to 1/3 not functioning.	X		
		Single light sources; in the case of LED less than 2/3 functioning.		X	
		No light source functioning.			X
		(b) Slightly defective lens (no influence on emitted light).	X		
		Heavily defective lens (emitted light affected).		X	
		(c) Lamp not securely attached.	X		
		Very serious risk of falling off.		X	
4.3.2. Switching	Visual inspection and by operation	(a) Switch does not operate in accordance with the requirements[1].	X		
		Delayed operation.		X	
		No operation at all.			X
		(b) Function of control device impaired.		X	

’;

(xviii) in the table, item 4.4.1 is replaced by the following:

‘

4.4.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source Multiple light sources (in the case of LED up to 1/3 not functioning). Single light sources; in the case of LED less than 2/3 functioning. No light source functioning.	X	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 of falling off.	X	X	

’;

(xix) in the table, item 4.5.1 is replaced by the following:

4.5.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source. Multiple light sources (in the case of LED up to 1/3 not functioning). Single light sources; in the 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 of falling off or dazzling oncomingtraffic.	X	X	

’;

(xx) in the table, item 4.6.1 is replaced by the following:

‘

4.6.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source Multiple light sources (in the case of LED up to 1/3 not functioning). Single light sources; in the case of LED less than 2/3 functioning.	X	 X	
		(b) Defective lens	X		
		(c) Lamp not securely attached. Very serious risk of falling off	X	 X	

’;

(xxi) in the table, item 4.7.1 is replaced by the following:

‘

4.7.1. Condition and operation	Visual inspection and by operation.	(a) Lamp throwing direct or white light to the rear.	X		
		(b) Defective or missing light source. (Multiple light source). Defective or missing light source. (Single light source).	X	 X	
		(c) Lamp not securely attached. Very serious risk of falling off.	X	 X	

’;

(xxii) in the table, item 4.11, the title in the first column of the table is replaced by the following:

‘Electrical wiring (except high-voltage wiring)’;

(xxiii) in the table, item 4.13, the title in the first column of the table is replaced by the following:

‘Battery (or batteries, except high-voltage batteries)’;

(xxiv) the following item 4.14 is inserted:

‘

4.14 High-voltage systems					
4.14.1 Electrical safety	Visual inspection complemented by using the vehicle interface	(a) Indicator or vehicle interface shows system malfunction		X	
		(b) Software version or -integrity incorrect		X	
4.14.2 Traction battery cover	Visual inspection.	(a) Slightly deteriorated	X		
		Heavily deteriorated		X	
		(b) Defective attachment		X	
		Very serious risk of falling off			X
		(c) Obstructed ventilation port(s)	X		
4.14.3 Traction battery	Visual inspection, complemented by using the vehicle interface (where made possible by the technical characteristics of the vehicle, and where the necessary data is available).	(a) Marks of leakage		X	
		Leaking (presence of droplets)			X
		(b) Incorrect software or hardware, or readiness-code not active		X	
4.14.4 High voltage electrical wiring					
4.14.4.1 High voltage wiring harness and connector	Visual inspection and by operation with the vehicle over a pit or on a hoist, including inside the engine compartment and the boot (where applicable)	(a) Slightly deteriorated	X		
		Heavily deteriorated		X	
		Risk of short-circuit fault			X
		(b) Wiring insecure or not adequately secured	X		
		Fixings loose, touching sharp edges, connectors		X	

		likely to be disconnected Wiring likely to touch hot parts, rotating parts or the ground, connectors disconnected			X
		(c) Imminent risk of fire, formation of sparks			X
4.14.4.2 Ground braid, including their attachment	Visual inspection and by operation.	Slightly deteriorated Heavily deteriorated	X	X	
4.14.4.3 Ground continuity (X)[2]	Measurement using an ohmmeter	Test not feasible Too high resistance (over 100 Ohms)	X	X	
4.14.4.4 Charging inlet cover	Visual inspection and by operation.	Deteriorated Missing	X	X	
4.14.4.5 Charging inlet	Visual inspection and by operation.	(a) Deteriorated Trace of beginning of melting or electric arcs (b) Foreign material or moisture	X	X X	
4.14.4.6 Charging cable	Visual inspection and by operation.	(a) Deteriorated	X		
		(b) Charging cable not provided	X		
4.14.5. High voltage electrical and electronical equipment (X)[2]					
4.14.5.1. High voltage electrical and electronical equipment	Visual inspection and by using the electronic vehicle interface.	(a) Slightly deteriorated Heavily deteriorated	X	X	
		(b) Attachment defective		X	
		(c) Leaking		X	
4.14.5.2. Traction motor	Visual inspection	(a) Shield is deformed, not in-place or damaged, or corroded		X	
	Check of operational readiness of the systems by an applicable interface (OBD or OBM)	(b) Warning marking missing or illegible		X	
		(c) Connection of wiring harness insecure or corroded		X	
	Measurement of equipotential bonding, where made possible by the technical characteristics of the vehicle	(d) Electrical insulation damaged or deteriorated likely to cause injury when contacted.		X	X
		(e) Fault readiness of the traction motor		X	

		(f) Wrong version of type-approved hardware and software not in accordance with the requirements as defined in the ECE R100		X	
4.14.5.3 Electronic converters, motor, and inverter	Visual inspection Check of operational readiness of the systems by an applicable interface (OBD or OBM) Measurement of equipotential bonding, where made possible by the technical characteristics of the vehicle	(a) Not in accordance with requirements[1]		X	
		(b) Inadequately secured		X	
		(c) Damaged or corroded components Likely to cause injuries or to fall off	X	 X	
		(d) Shields not in place or damaged		X	
		(e) Damaged or deteriorated electrical insulation		X	
		(f) Fault readiness of the converter and inverter systems		X	
		(g) Wrong version of type-approved hardware and software		X	
4.14.6. Insulation resistance (X)[2]					
4.14.6.1. Insulation resistance of the vehicle charging inlet and resistance of the protective earthing	Read insulation resistance by the electronic vehicle interface, where made possible by the technical characteristics of the vehicle and where the necessary data is made available	(a) Insulation resistance is not in accordance with requirements or predefined values from the vehicle manufacturer		X	
		(b) Resistance of the protective earthing is not in accordance with requirements		X	
4.14.6.2. Insulation resistance between the high-voltage system and chassis	Visual inspection Read insulation resistance by the electronic vehicle interface, where made possible by the technical characteristics of the vehicle and where the necessary data is made available	(a) Insulation monitoring system shows malfunction		X	
		(b) Insulation resistance value not in accordance with requirements		X	
4.14.7. Anti-starting system					
4.14.7.1. Anti-starting system	Visual inspection and by operation when possible. Functional check by verifying that the vehicle cannot move by itself with the charging cable plugged, and the driver's weight lifted out of the seat	(a) Indicator malfunction	X		
		(b) Inoperative, i.e., vehicle can move with connected charging cable or with no driver present		X	

’;

(xxv) in the table, item 5.1.3 is replaced by the following:

‘

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 having a maximum mass exceeding 3,5 tonnes. 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.		X	
		Directional stability impaired; danger of demolishment.			X
		(b) Wheel bearing too tight, jammed.		X	
		Danger of overheating; danger of demolishment.			X
		(c) Audible signs of bearing wear or damage.		X	

’;

(xxvi) in the table, item 5.2.3 is replaced by the following:

‘

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 category not in accordance with the requirements[1] and affecting road safety or environmental performance.		X	
		Insufficient load capacity or speed category for actual use, tyre touches other fixed vehicle parts impairing safe driving.			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.		X	
		Cord visible or damaged.			X
		(e) Tyre tread wear indicator becomes exposed.		X	
		Tyre tread depth not in accordance with the requirements[1].			X
		(f) Tyre rubbing against other components (flexible anti spray devices).	X		
		Tyre rubbing against other components (safe driving not impaired)		X	
		(g) Re-grooved tyres not in accordance with requirements[1].		X	
		Cord protection layer affected.			X
		(h) Tyre obviously underinflated.	X		

’;

(xxvii) in the table, item 5.3.2.1 is replaced by the following:

‘

5.3.2.1. efficiency testing of damping	Using special equipment and comparing left/ right differences, or based on measurement of oscillation behaviour or damping of the vehicle	(a) Significant difference between left and right.		X	
		(b) Given minimum values not reached.		X	

’;

(xxviii) in the table, items 7.1.3, 7.1.4, 7.1.5 and 7.1.6 are deleted;

(xxix) in the table, item 7.8 is replaced by the following:

‘

7.8. Speedometer	Visual inspection or by operation during road test or by using the electronic vehicle interface, or any combination of these.	(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 sufficiently illuminated. Not capable of being illuminated at all.	X	 X	

’;

(xxx) in the table, items 7.9 and 7.10 are deleted;

(xxxi) in the table, item 7.11 is replaced by the following:

‘

7.11. Odometer, if available	Visual inspection, and/or using electronic interface (OBD or OBM)	(a) Obviously manipulated (fraud) to reduce or misrepresent the vehicle's distance record.		X	
		(b) Obviously inoperative.		X	

’;

(xxxii) in the table, items 7.12 and 7.13 are deleted;

(xxxiii) in the table, items 8.1 and 8.2 are replaced by the following:

‘

8.1. Noise

8.1.1. Noise suppression system	For L-category vehicles powered by internal combustion engines, visual inspection and measurement of noise emitted by stationary vehicle using a sound level meter.	(a) Noise levels in excess of those permitted in the requirements[1].		X	

	For other vehicles, subjective evaluation (unless the inspector considers that the noise level may be borderline, in which case a measurement of noise emitted by stationary vehicle using a sound level meter may be conducted)				
8.2. Exhaust emissions					
8.2.1. Exhaust emissions control equipment	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface (OBD or OBM read-out)	(a) Emission control equipment fitted by the manufacturer absent, modified or obviously defective.		X	
		(b) Leaks which would affect emission measurements.		X	
		(c) Warning device malfunctioning, warning indicator / tell-tale inoperative.		X	
		(d) MIL activated, warning device shows system malfunction.		X	
		(e) System indicates failure via the electronic vehicle interface.		X	
		(f) Exhaust emission control unit modified affecting safety and/or the environment.		X	
		(g) Any other emission relevant control unit modified affecting safety and/or the environment.		X	
		(h) Presence of electronic devices not authorised by the vehicle manufacturer nor approved during homologation changing signals to or from the engine or pollution control unit(s).		X	
		(i) OBD or OBM read-out indicating significant malfunction.		X	

8.2.2 Exhaust emission measurement – positive ignition engines	Test procedures: For vehicles that had a particle number (PN) limit at type-approval; Euro VI, Euro 6c and newer: Particle number measurement in accordance with 8.2.2.1. For all vehicles: Gaseous emissions test in accordance with 8.2.2.2. For vehicles as of emission classes Euro VI, 6d-TEMP and newer: NO_X measurement in accordance with 8.2.2.3.				
8.2.2.1 Particle number measurement	Vehicle preparation: — [to be specified in accordance with the delegated acts referred to in Article 17] Measuring instrument preparation: — The device to measure PN is powered on for at least the warm-up time indicated by the manufacturer; — Self-checks of the instrument [to be specified in accordance with the delegated acts referred to in Article 17], to monitor the proper operation of the instrument during operation and trigger a warning or message in case of malfunction; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage. Test procedure: — The software of the particle counter automatically guides the instrument operator through the test procedure; — The probe is inserted at least 0,20 m into the outlet of the exhaust system. In justified	Measurement result exceeds [to be specified in accordance with the delegated acts referred to in Article 17] ($1/cm^3$)		X	

	exemptions where sampling at this depth is not possible, the probe is inserted at least 0,05 m. The sampling probe shall not touch the walls of the tailpipe; — If the exhaust system has more than one outlet, the test shall be done to all of them. In this case, the highest measured PN concentration measured at different exhaust system outlets shall be considered as the vehicle's PN concentration; — The vehicle operates [as specified in accordance with the delegated acts referred to in Article 17]. In case the engine of a vehicle is not switched on at static conditions then the start/stop system shall be deactivated by the test operator. For hybrid and plug-in hybrid vehicles, the thermal engine shall be switched on; — After the probe has been inserted into the tailpipe, the following steps shall be followed: 1. A stabilization period of at least 15 seconds with the engine running at idle speed. 2. After the stabilisation period, the PN concentration emissions are measured. The duration of the test shall be at least [XX] seconds (total measurement duration) [to be specified in accordance with the delegated acts referred to in Article 17]. After the completion of the test procedure, the instrument reports (and stores) the PN concentration of the vehicle and a "PASS" or "FAIL" message: — If the test result is less than or equal to the limit, the instrument reports a "PASS" message. — If the test result is greater than the limit, the instrument reports a "FAIL" message.				

8.2.2.2. Gaseous emissions	Measurement using an exhaust gas analyser in accordance with the requirements[1]. 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 % or — at engine idle: 0,2 % ([8]) — at high idle: 0,1 % 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	
8.2.2.3. NO_X measurement	Vehicle preparation: [to be specified in accordance with the delegated acts referred to in Article 17]; - […] Measuring instrument preparation: — [to be specified in accordance with the delegated acts referred to in Article 17 or combined with PN testing above];	Measurement result exceeds [NO_X limit to be specified in accordance with the delegated acts referred to in Article 17].		X	

	— Self-checks of the instrument [to be specified in accordance with the delegated acts referred to in Article 17]; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage. Test procedure: — [to be specified in accordance with the delegated acts referred to in Article 17 or combined with PN testing above].				

8.2.3 Exhaust emission measurement – compression ignition engines	Test procedures: For vehicles as of emission classes Euro 5b and Euro VI and newer: Particle number (PN) measurement in accordance with 8.2.3.1 For vehicles up to emission classes Euro 5a and Euro V: Opacity measurement in accordance with 8.2.3.2. For vehicles equipped with particle filters, Member States may apply PN measurement in accordance with 8.2.3.1 instead of opacity measurement. For vehicles as of emission classes Euro 6d-TEMP and Euro VI and newer: NO_x measurement in accordance with 8.2.3.3.				
8.2.3.1 Particle number measurement	Vehicle preparation: At the beginning of the test the vehicle's engine should be: — Hot, i.e., engine coolant temperature above 60 °C but preferably above 70 °C — Conditioned, by operating for a period of time at low idling and/or performing stationary accelerations up to maximum 2 000 rpm engine speed or by driving. The recommended total conditioning time is at least 300 seconds. During the test, the vehicle shall not be performing an active particulate filter regeneration. A fast pass test is possible with engine coolant temperature below 60 °C. However, if the vehicle fails to pass the test, the test shall be repeated, and the vehicle should fulfil the requirements set for the engine coolant temperature and the conditioning. Measuring instrument (as specified in Sections 3, 4, and 5 of Commission Recommendation (EU) 2023/688, as adopted on 20 March 2023) preparation: — The instrument is powered on for at least the warm-up time	Measurement result exceeds 250 000 ($1/cm^3$) For vehicles up to emission class Euro 5a and Euro V, equipped with particle filters, Member States may apply a limit up to 1 000 000 ($1/cm^3$)		X	

	indicated by the manufacturer; — Self-checks of the instrument as defined in Section 5 of Commission Recommendation (EU) 2023/688, as adopted on 20 March 2023, to monitor the proper operation of the instrument during operation and trigger a warning or message in case of malfunction; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage. Test procedure: — The software of the particle counter automatically guides the instrument operator through the test procedure; — The probe is inserted at least 0,20 m into the outlet of the exhaust system. In justified exemptions where sampling at this depth is not possible, the probe is inserted at least 0,05 m. The sampling probe shall not touch the walls of the tailpipe; — If the exhaust system has more than one outlet, the test shall be done to all of them. In this case, the highest measured PN concentration measured at different exhaust system outlets shall be considered as the vehicle's PN concentration; — The vehicle operates at low idling. In case the engine of a vehicle is not switched on at static conditions then the start/stop system shall be deactivated by the test operator. For hybrid and plug-in hybrid vehicles, the thermal engine shall be switched on; — After the probe has been inserted into the tailpipe, the following steps shall be followed: 1. A stabilization period of at least 15 seconds with the engine running at idle speed. Optionally, before the stabilization period 2-3 accelerations up to maximum 2 000 rpm engine speed are performed, 2. After the stabilisation period, the PN concentration emissions are measured. The duration of the test shall be at least 15 seconds (total measurement duration). The test result shall be the average PN concentration of the measurement duration. If the measured PN concentration is more than two times the limit, the measurement may stop immediately before waiting for 15 seconds to elapse. The test result shall be reported. After the completion of the test procedure, the instrument				

	reports (and stores) the average PN concentration of the vehicle and a “PASS” or “FAIL” message: — If the test result is less than or equal to the limit, the instrument reports a “PASS” message. — If the test result is greater than the limit, the instrument reports a “FAIL” message.				
8.2.3.2. Opacity Vehicles registered or put into service before 1 January 1980 are exempted from this requirement	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 and, if specified in accordance with the type-approval regulations, reading of OBD in accordance with the manufacturer's recommendations and other requirements. 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.	(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	

	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 the 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. 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.	(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} ([9]) or 0,7 m^{-1} ([8])			

	3. During each free acceleration cycle, the engine shall reach cut-off speed or, 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 categories M_2, M_3, N_2 and N_3, 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 fewer 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 fewer than three free acceleration cycles or after the purging cycles.				

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
8.2.3.3. NO_X measurement	Vehicle preparation: Prior to testing, the vehicle's exhaust aftertreatment system shall be warmed up, to the conditions that allow effective abatement of NO_X emissions by the selective catalytic reduction (SCR) unit of the vehicle by at least a 5-minute drive or an equivalent method. Once the condition is reached, the vehicle shall not be turned off and the measurement shall be performed within 3 minutes for M_1 and N_1 vehicles and within 3.5 minutes for M_2, M_3, N_2 and N_3 vehicles. Where possible, the vehicle's readiness to be tested shall be ascertained by checking the indicator lamp on the dashboard or via the vehicle interface (OBD or OBM read-out). During the test, the vehicle shall not be performing an active particulate filter regeneration. Measuring instrument preparation: — The device to measure NO_X emissions is powered on for at least the warm-up time indicated by the manufacturer; — Self-checks of the instrument [to be specified in accordance with the delegated acts referred to in Article 17] to monitor the proper operation of the instrument during operation and trigger a warning or message in case of malfunction; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage. Test procedure: — The software of the NO_X analyser automatically guides the instrument operator through the test procedure; — The probe is inserted at least 0,20 m into the outlet of the exhaust system. In justified exemptions where sampling at this depth is not possible, the probe is inserted at least 0,05	Measurement result exceeds 40 ppm		X	

	m. The sampling probe shall not touch the walls of the tailpipe; — If the exhaust system has more than one outlet, the test shall be done to all of them. In this case, the highest measured NO_X concentration measured at different exhaust system outlets shall be considered as the vehicle's NO_X concentration; — The vehicle operates at low idling; — After the probe has been inserted into the tailpipe, the following steps shall be followed: 1. A stabilization period of at least 15 seconds with the engine running at idle speed. 2. After the stabilisation period, the NO_X concentration emissions are measured. The duration of the test shall be at least 15 seconds (total measurement duration). The test result shall be the average NO_X concentration of the measurement duration. After the completion of the test procedure, the instrument reports (and stores) the average NO_X concentration of the vehicle and a "PASS" or "FAIL" message: — If the test result is less than or equal to the limit, the instrument reports a "PASS" message. — If the test result is greater than the limit, the instrument reports a "FAIL" message.				

';

(xxxiv) in the table, item 8.4.1, is replaced by the following:

'

8.4.1. Fluid leaks	Visual inspection	Any excessive fluid leak, other than water, likely to harm the environment or to pose a safety risk to other road users. Steady formation of drops that constitutes a very serious risk.		X X

’;

(xxxv) in the table, the following item 10 is added:

‘

10. ELECTRONIC SAFETY SYSTEMS					
10.1. Cornering light Description: during cornering, an extra headlamp is activated. Operates up to 40 km/h, for example in accordance with UNECE-R 48 or UNECE-R 119.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	 X 	 X 	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	 X 	 X 	 X
10.2 Adaptive cruise control	Visual inspection complemented, where	(a) System or any component missing		X	

Description: The system maintains the vehicle's speed, depending on the preferred speed and distance to the vehicle in front.	made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(b) System or components damaged, or sensors obviously misaligned		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.3 Adaptive deflectors Description: Depending on the vehicle's speed, the air deflectors are adjusted in order to improve driving stability.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.4 Airbag Description: In case of an accident, inflatable airbags reduce the risk of injury by their absorbing effect, for example in accordance with UNECE-R 12; UNECE-R 14; or UNECE-R 16.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or components (for example seat occupancy detection) obviously missing.		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	X	X
		(g) System or components obviously not operating (for example not suitable with the vehicle)		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
10.5 Active Headrest Description: the system reduces the danger of a whiplash injury in the event of a rear end collision by changing the position of the headrest towards the head.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
		(g) System or components not operating, where applicable, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
10.6 Active hood Description: by automatically lifting the bonnet, the system ensures a larger collapsible zone in the event of an accident involving a	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	

pedestrian.		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating (for example outdated), where applicable, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.7 Automatic hold function Description: the system independently holds the vehicle after stopping using the service brake and/or parking brake and automatically releases them when starting.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.8 Automatic headlamp levelling Description: depending on the load and (optional) pitch angle, the system regulates the headlamp's vertical aim, for example in accordance with UNECE-R 121.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.9 Automatic emergency braking system Description: the system independently starts braking in order to avoid a collision with an obstacle or another road user, or to reduce the consequences of an	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged, or sensors obviously misaligned		X	
		(c) Software version or -integrity incorrect		X	

inevitable impact.		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operative (for example audio components)		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.10 Anti-lock braking system Description: the system automatically prevents wheel-locking during braking by selective reduction of the wheel brake force, for example in accordance with UNECE-R 13 and Regulation (EU) 2019/2144.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components (for example wheel speed sensor) damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X

		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.11 Automatic light Description: depending on the ambient brightness, the system automatically switches on and off the driving light.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.12 Electro-mechanic power steering Description: the supporting power	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where	(a) System or any component missing		X	
		(b) System or components damaged		X	

for steering is generated by an electric motor.	the necessary data is made available, with the use of electronic interface	(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating (for example Power assistance not working), or implausible operation (for example inconsistency between the angle of the steering wheel and the angle of the wheels.) Steering affected		X	X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.13 Electronic four-wheel steering Description: two axles are steered, with a steering angle greater than 3° on all steered wheels, for example in accordance with UNECE-R 79 and Regulation (EU) 2019/2144.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.14 Electronic damping Description: depending on the driving situation, the rebound and compression stage of the shock absorbers is adjusted by the system.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.15 Electronic brake system Description: a brake pedal sensor and/or pressure sensor records the braking request and calculates the optimal brake force for each wheel, so that there is optimal activation of all wheel brakes.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface, or by road test.	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.16 Electronic stability program Description: the system stabilizes the vehicle or the complete vehicle train in critical, dynamic driving situations, for example in	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component (for example wheel speed sensors) missing		X	
		(b) System or components (for example wheel speed sensors) damaged		X	

accordance with Regulation (EU) 2019/2144 and UNECE-R 140.		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.17 High beam assist Description: the system automatically activates and deactivates the high beam according to the driving situation and lighting conditions.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X

		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.18 Speed limiter Description: While driving, the system prevents exceeding a defined maximum speed. Relevant, if mandatory, for example in accordance with UNECE-R 89 and Regulation (EU) 2019/2144.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing (for example seals, plaques), or not fitted in accordance with the requirements.		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation (for example tampered or manipulated, or size of tyres not compatible with calibration parameters, or incorrect set speed, if checked).		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X

10.19 Belt tensioner and belt force limiter Description: In the event of an accident, the seat belt is tensioned to place the passengers in a setpoint position and/or limits the belt force, electrically controlled and, thus, limits the forces acting on the persons for example in accordance with UNECE-R 16 or UNECE-R 94.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing, or not suitable with the vehicle		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
		(g) System or components not operating, where applicable, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
10.20 Taillight switching Description: Depending on operating status and/or failure of the illuminants, lighting functions are taken over by other luminaires.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.21 Bending light Description: during cornering and depending on the steering angle and speed, the light beam is swivelled and/or an additional headlight is activated, for example in accordance with UNECE-R 48; UNECE-R 98; UNECE-R 112; or UNECE-R 123.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.22 Steering assist Description: depending on the driving situation, the steering angle is automatically changed, without intervention by the driver. Relevant if the steering intervention occurs at a speed of more than 15 km/h, for example in accordance with UNECE-R 79.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operative (for example audio components)		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.23 Height levelling Description: the system changes the clearance between vehicle chassis and the road.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	

		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.24 Emergency braking signal Description: during strong deceleration, hazard warning lights and/or additional luminous surfaces are activated and/or the following traffic is warned by flashing brake lights, for example in accordance with UNECE-R 48 or UNECE-R 13.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	

		(f) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.25 Pre-crash system Description: in a critical driving situation, the vehicle is prepared for the crash so that the risk of injury to the passengers and/or other road users is reduced.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation (for example power windows)		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.26 Tyre pressure warning Description: the system detects loss of tyre pressure through integrated sensors and/or by implausible values for wheel speed, for example in accordance with Regulation (EU)	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	

2019/2144 and UNECE-R 141.		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.27 Traction control Description: the system prevents the drive wheels spinning during acceleration by applying brake force.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.28 Superimposed steering Description: depending on the driving situation, the system varies the transmission ratio of the steering.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating (for example power assistance not working), or implausible operation (for example inconsistency between the angle of the steering wheel and the angle of the wheels.) Steering affected		X	 X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.29 Roll over protection (active) Description: in the event of an imminent rollover, support	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where	(a) System or any component missing		X	
		(b) System or components damaged		X	

elements are extended to secure the survival space, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 21.	the necessary data is made available, with the use of electronic interface	(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.30 Hydrogen installation Description: the hydrogen is stored in the vehicle and is used to propel the vehicle, either by combustion in an internal combustion engine or by conversion in a fuel cell with an additional electric engine.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.31 Start-up aid Description: aiding start-up, for example by raising the lift axle or by momentarily applying brake pressure or by automatic release of the parking brake.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.32 Trailer stabilization Description: through selective braking of the trailer by the service	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where	(a) System or any component missing		X	
		(b) System or components damaged		X	

brakes, the complete vehicle train is stabilised.	the necessary data is made available, with the use of electronic interface	(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.33 Endurance brake Description: an additional braking system that can maintain braking over a period of time without a significant reduction in performance, for example in accordance with UNECE-R 13 and Regulation (EU) 2019/2144.	Visual inspection (with command activated and not activated, if possible) complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing (for example Insecure connectors or mountings)		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X

		(g) System or components not operating, or implausible operation		X	
		(j) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.34 Differential lock deactivation Description: when this system is activated, the differential locks are unlocked depending on parameters (for example wheel slip, steering angle, speed).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation Steering affected		X	X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

10.35 Electronically controlled leading and trailing axle Description: the steered axles are additional axles with electronically controlled steering. The steering force is generated by a hydraulic pump or by the lateral force on the wheels.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation Steering affected		X	 X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.36 Electronic steering damper Description: Steering damping is controlled electronically.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation Steering affected		X	X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.37 Bus stop brake Description: the system ensures the application of brake pressure when stationary, independent of the brake pedal activation. Buses can only start moving when the doors are closed.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.38 Kneeling Description: the system allows a road vehicle to be lowered to make it easier for passengers to board and disembark.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.39 Steering brake Description: during cornering, dosed braking is applied to one or more wheels.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	

		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation Steering affected		X	 X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.40 Tyre pressure control Description: according to the requirement of the driver, the system regulates the tyre pressure.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X

		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.41 Sliding joint stabilisation Description: The articulated joint is stabilised by damping, depending on vehicle speed, cylinder pressure of the articulated dampers, steering and articulation-angle.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.42 Four-wheel parking brake Description: the system applies the maximum brake pressure in the	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where	(a) System or any component missing		X	
		(b) System or components damaged		X	

wheel cylinders at all four wheels.	the necessary data is made available, with the use of electronic interface	(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.43 Front-wheel locking device Description: front wheel suspension, which permits lateral inclination of the motorcycle, can be locked and unlocked by an electric actuator. Above a certain speed, it is automatically unlocked.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.44 Adaptive headlights Description: the illumination of the surrounding road area and/or the direct illumination of road users in the danger area in front of the vehicle is optimised by dynamic adaption of the light beams.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.45 Electrically actuated parking brake Description: the parking brake	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where	(a) System or any component missing		X	
		(b) System or components damaged		X	

function is triggered or transmitted electronically or electromechanically.	the necessary data is made available, with the use of electronic interface	(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.46 Lane change assistance Description: at a lane change, the system warns the driver about vehicles in the next lane and steers the vehicle back.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.47 Lane keeping assistance Description: the system warns the driver when the vehicle is unintentionally leaving its lane and steers the vehicle back, e.g. in accordance with Regulation (EU) 2019/2144 and Commission Implementing Regulation (EU) 2021/646*.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.48 Automatic eCall Description: the system is triggered automatically by in-vehicle sensors	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where	(a) System or any component missing		X	
		(b) System or components damaged		X	

or manually, it transmits a minimum set of data (EN 15722) via mobile communication network and establishes an audio connection based on the (emergency) number between the vehicle passengers and the public safety answering point, in accordance with Regulation (EU) 2015/758 of the European Parliament and of the Council**, and Commission Delegated Regulation (EU) 2017/79***.	the necessary data is made available, with the use of electronic interface The verification of the minimum set of data (MSD) includes checking whether: - the mandatory fields are filled with plausible information; - the deviation between in-vehicle system (IVS) location and true location is less than 150 meters. The calculation can be done according to point 2.5 of Annex I of Commission Delegated Regulation (EU) 2017/79; - the deviation between the MSD timestamp and the timestamp of the reading is less than 60s.	(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device (eCall MIL) shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
		(g) System or components not operating, or implausible operation: - audio components (for example failing echo-test); - minimum set of data incorrect		X	
		(h) Other failure (for example mobile network communication device, electronic control unit, or GPS signal failure) Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
10.49 Active roll stabilisation Description: via appropriate actuators the system produces a roll movement which counters the vehicle's body roll movement depending on the current driving situation.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.50 Camera monitor Description: the system which generates at least a part of the indirect field of vision by a camera monitor combination (for example in accordance with UNECE-R 46).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.51 Acoustic vehicle alerting Description: at low speed, the system generates an external, specific sound in order to warn, for example pedestrians.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operative, or not respecting type-approved noise levels		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.52 Basic exterior lights Description: the system switches on/switches off the basic lighting devices (for example indicators).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	

		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.53 Automated lane keeping system (ALKS) Description: a system which is activated by the driver, and which keeps the vehicle within its lane by controlling the lateral and longitudinal movements of the vehicle for extended periods without the need for further driver input (for example in accordance with UNECE-R 157).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.54 Turning assistant Description: a system to inform the driver of a possible collision with a traffic participant (for example bicycle) near side (for example in accordance with UNECE-R 151).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.55 Tachograph Description: a system to record the driving time, breaks, rest periods as well as periods of other work undertaken by a driver, for example, in accordance with	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing (for example seals, plaques), or not fitted in accordance with the requirements (for example plaque out of date).		X	
		(b) System or components damaged (for example illegible plaque)		X	

Regulation (EU) No 165/2014 of the European Parliament and of the Council****.		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation (for example tampered or manipulated, or size of tyres not compatible with calibration parameters, or incorrect set speed, if checked).		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.56 Intelligent speed assistance Description: system to aid the driver in maintaining the appropriate speed for the road environment by providing dedicated and appropriate feedback, for example in accordance with Regulation (EU) 2019/2144 and Commission Delegated Regulation (EU) 2021/1958*****.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(g) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.57 Reversing detection Description: system to make the driver aware of people and objects at the rear of the vehicle with the primary aim of avoiding collisions when reversing, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 158.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.58 Driver drowsiness and attention warning Description: system that assesses the driver's alertness through vehicle systems analysis and warns the driver if needed, for example in accordance with Regulation (EU) 2019/2144 and Commission Delegated Regulation (EU) 2021/1341******.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.59 Advanced driver distraction warning Description: system that helps the driver to continue to pay attention to the traffic situation and that warns the driver when he or she is	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	

distracted, for example in accordance with Regulation (EU) 2019/2144 and Commission Delegated Regulation (EU) 2023/2590*******.		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.60 Event data recorder Description: system with the only purpose of recording and storing critical crash-related parameters and information shortly before, during and immediately after a collision, for example in accordance with Regulation (EU) 2019/2144, Commission Delegated Regulation (EU) 2022/545********, and UNECE-R 160.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation	X		
		(g) System or components not operating, or implausible operation (for example data not accessible)		X	
		(h) Other failure Not affecting the safe operation	X		

10.61 Automated driving system Description: systems that are capable of performing the entire dynamic driving task of the fully automated vehicle on a sustained basis, for example in accordance with Regulation (EU) 2019/2144 and Commission Implementing Regulation (EU) 2022/1426*********.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation (for example HMI)		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.62 Driver availability monitoring systems (automated driving) Description: System that assesses whether the driver is capable of taking over the driving function of a self-driving vehicle, if necessary, in certain situations, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 157.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation (for example HMI)		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

* Commission Implementing Regulation (EU) 2021/646 of 19 April 2021 laying down rules for the application of Regulation (EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of motor vehicles with regard to their emergency lane-keeping systems (ELKS) (OJ L 133, 20.4.2021, p. 31, ELI: http://data.europa.eu/eli/reg_impl/2021/646/oj).

** Regulation (EU) 2015/758 of the European Parliament and of the Council of 29 April 2015 concerning type-approval requirements for the deployment of the eCall in-vehicle system based on the 112 service and amending Directive 2007/46/EC (OJ L 123, 19.5.2015, p. 77, ELI: http://data.europa.eu/eli/reg/2015/758/oj).

*** Commission Delegated Regulation (EU) 2017/79 of 12 September 2016 establishing detailed technical requirements and test procedures for the EC type-approval of motor vehicles with respect to their 112-based eCall in-vehicles systems, of 112-based eCall in-vehicle separate technical units and components and supplementing and amending Regulation (EU) 2015/758 of the European Parliament and of the Council with regard to the exemptions and applicable standards (OJ L 12, 17.1.2017, p. 44, ELI: http://data.europa.eu/eli/reg_del/2017/79/oj).

**** Regulation (EU) No 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport, repealing Council Regulation (EEC) No 3821/85 on recording equipment in road transport and amending Regulation (EC) No 561/2006 of the European Parliament and of the Council on the harmonisation of certain social legislation relating to road transport **(**OJ L 60, 28.2.2014, p. 1, ELI: http://data.europa.eu/eli/reg/2014/165/oj).

***** Commission Delegated Regulation (EU) 2021/1958 of 23 June 2021 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of motor vehicles with regard to their intelligent speed assistance systems and for the type-approval of those systems as separate technical units and amending Annex II to that Regulation (OJ L 409, 17.11.2021, p. 1, ELI: http://data.europa.eu/eli/reg_del/2021/1958/oj).

****** Commission Delegated Regulation (EU) 2021/1341 of 23 April 2021 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of motor vehicles with regard to their driver drowsiness and attention warning systems and amending Annex II to that Regulation (OJ L 292, 16.8.2021, p. 4, ELI: http://data.europa.eu/eli/reg_del/2021/1341/oj).

******* Commission Delegated Regulation (EU) 2023/2590 of 13 July 2023 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical

requirements for the type-approval of certain motor vehicles with regard to their advanced driver distraction warning systems and amending that Regulation (OJ L, 2023/2590, 22.11.2023, ELI: http://data.europa.eu/eli/reg_del/2023/2590/oj).

******** Commission Delegated Regulation (EU) 2022/545 of 26 January 2022 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of motor vehicles with regard to their event data recorder and for the type-approval of those systems as separate technical units and amending Annex II to that Regulation (OJ L 107, 6.4.2022, p. 18, ELI: http://data.europa.eu/eli/reg_del/2022/545/oj).

********* Commission Implementing Regulation (EU) 2022/1426 of 5 August 2022 laying down rules for the application of Regulation (EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of the automated driving system (ADS) of fully automated vehicles (OJ L 221, 26.8.2022, p. 1, ELI: http://data.europa.eu/eli/reg_impl/2022/1426/oj).

’;

(2) Annex III is amended as follows:

(a) in section I ‘Facilities and equipment’, the first paragraph is amended as follows:

(i) points (9) and (10) are replaced by the following:

‘(9) A Class II sound level meter, if sound level is measured;

(10) A 4-gas analyser in accordance with Directive 2014/32/EU of the European Parliament and of the Council*;

* Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments (OJ L 96, 29.3.2014, p. 149, ELI: http://data.europa.eu/eli/dir/2014/32/oj).’;

(ii) the following points (16) and (17) are added:

‘(16) device to measure particle number emissions with sufficient accuracy;

(17) [From one year after the entry into force of the delegated act referred to in Article 17], a device to measure nitrogen oxide (NO_X) emissions.’;

(b) in section II, Table I is replaced by the following:

‘*Table I* (*)

Minimum equipment required for the purpose of performing a roadworthiness test

Vehicles		Category		Equipment required for each item listed in section I																
	Maximum mass			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Motorcycles			[1]																	
		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 the carriage of persons																			

Vehicles		Category		Equipment required for each item listed in section I																
	Maximum mass			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Up to 3 500 kg	M_1, M_2	P	x	x		x					x	x		x	x	x	x	x	x
	Up to 3 500 kg	M_1, M_2	D	x	x		x					x		x	x	x	x		x	x
	> 3 500 kg	M_2, M_3	P	x	x	x		x	x	x	x	x	x		x	x	x	x	x	x
	> 3 500 kg	M_2, M_3	D	x	x	x		x	x	x	x	x		x	x	x	x		x	x
3. Vehicles for the carriage of goods																				
	Up to 3 500 kg	N_1	P	x	x		x					x	x		x	x	x	x	x	x
	Up to 3 500 kg	N_1	D	x	x		x					x		x	x	x	x		x	x
	> 3 500 kg	N_2, N_3	P	x	x	x		x	x	x	x	x	x		x	x	x	x	x	x
	> 3 500 kg	N_2, N_3	D	x	x	x		x	x	x	x	x		x	x	x	x		x	x
4. ►**M1** Special vehicles derived from a category N vehicle, T1b, T2b, T3b, T4.1b, T4.2b and T4.3b ◄																				
	Up to 3 500 kg	N_1	P	x	x		x					x	x		x	x	x	x	x	x
	Up to 3 500 kg	N_1	D	x	x		x					x		x	x	x	x		x	x

Vehicles		Category		Equipment required for each item listed in section I																
	Maximum mass			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	> 3 500 kg	N_2, N_3, ►**M1** T1b, T2b, T3b, T4.1b, T4.2b and T4.3b ◄	P	x	x	x		x	x	x	x	x	x		x	x	x	x	x	x
	> 3 500 kg	N_2, N_3, ►**M1** T1b, T2b, T3b, T4.1b, T4.2b and T4.3b ◄	D	x	x	x		x	x	x	x	x		x	x	x	x		x	x
5. Trailers	Up to 750 kg	O_1		x												x				
	> 750 to 3 500 kg	O_2		x	x		x									x				
	> 3 500 kg	O_3, O_4		x	x	x			x	x	x					x				

* The vehicle categories which are outside the scope of this Directive are included for guidance.

[1] P…petrol (positive ignition); D…diesel (compression ignition)

’;

(3) In Annex IV, in point 2, point (a), points (i) and (ii) are replaced by the following:

‘(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;

— alternative drives (high-voltage, hybrid, hydrogen systems);

— additional requirements for special vehicles;

(ii) testing methods (including the necessary training for inspecting vehicles equipped with high-voltage systems);’.

ANNEX [II]

Annexes II, III, IV and V to Directive 2014/47/EU are amended as follows:

(1) Annex II is amended as follows:

(a) in point 1, the following point (10) is added:

‘(10) Electronic safety systems.’;

(b) point 3 is amended as follows:

(i) the heading is replaced by the following:

‘3. CONTENTS AND METHODS OF TESTING, REASONS FOR FAILURE, AND ASSESSMENT OF DEFICIENCIES OF VEHICLES’;

(ii) in the table, items 1.1.3 to 1.1.6 are replaced by the following:

‘

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. Brake application means depression of the brake pedal/lever which allows the full flow of air/fluid application pressure to the brake assemblies.	(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 require-ments[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. Air leak causing a critical drop in pressure.		X X	
		(e) External damage likely to affect the function of the braking system.		X	
1.1.4. Low pressure warning device	Functional check	Malfunctioning or defective warning device. 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, defective fixing, or leaks in system.		X	
		(d) Unsatisfactory operation.		X	

1.1.6. Parking brake (activator, lever control, parking brake ratchet)	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	

’;

(iii) in the table, item 1.1.13 is replaced by the following:

‘

1.1.13. Brake linings and pads	Visual inspection.	(a) Lining or pad excessively worn (minimum 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, or of obviously incorrect type.			X
		(d) Wear indicator electrical harness disconnected or damaged	X		

’;

(iv) in the table, item 1.1.18 is replaced by the following:

‘

1.1.18. Slack adjusters and indicators	Visual inspection of the components while the braking system is operated, if possible.	(a) Adjuster damaged, seized or having abnormal movement, excessive wear, or incorrect adjustment.		X	
		(b) Adjuster defective.		X	
		(c) Incorrectly installed or replaced.		X	

;

(v) in the table, item 1.1.19 is deleted;

(vi) in the table, item 1.1.23 is replaced by the following:

‘

1.1.23. Overrun brake	Visual inspection and by operation	(a) Not working properly, for example, stroke of the drawbar exceeds 2/3 of the total overrun travel		X	
		(b) Breakaway cable defect or missing		X	

’;

(vii) in the table, items 1.2.1 and 1.2.2 are replaced by the following:

‘

1.2.1. Performance (E)	During a test on a brake tester or, if impossible, during a road test, apply the brakes progressively up to maximum effort. It must be ensured, where possible, that the mechanical service brakes are inspected without interference/blending of regenerative braking or other continuous braking.	(a) Inadequate braking effort on one or more wheels. Or, in the case of testing on the road, the vehicle deviates excessively from a straight line and/or excessive vibration is produced at the service brake pedal/lever. No braking effort on one or more wheels.		X X	 X
		(b) Braking effort from any wheel is less than 70 % of the 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 the maximum effort recorded from the other wheel on the same axle in the 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	
1.2.2. Efficiency(E)	Test with a brake tester at the presented weight or, if one cannot be used for technical reasons, by a road test usinga deceleration recording instrument ([1]).	Does not give at least the minimum figure as follows ([2]): Categories M_1, M_2 and M_3: 50 % ([3]) Category N_1: 45 % Categories N_2 and N_3: 43 % ([4]) Categories O_3 and O_4: 40 % ([5]) Category T: 40% Less than 50 % of the above values reached		X	 X

’;

(viii) in the table, item 1.3.1 is replaced by the following:

‘

1.3.1. Performance (E)	If the secondary braking system is separate from the service braking system, use the method specified in 1.2.1. It must be ensured that, where possible, the mechanical brakes are inspected without interference/blending of regenerative braking or other continuous braking.	(a) Inadequate braking effort on one or more wheels.		X	
		No braking effort on one or more wheels.			X
		(b) Braking effort from any wheel is less than 70 % of the 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.		X	
		Braking effort from any wheel is less than 50 % of the maximum effort recorded from the other wheel on the same axle in the case of steered axles.			X
		(c) No gradual variation in brake effort (grabbing).		X	

’;

(ix) in the table, item 1.4.1 is replaced by the following:

‘

1.4.1. Performance (E)	Apply the brake during a test on a brake tester or by road test.	Brake inoperative on one side or, in the case of testing on the road, the vehicle deviates excessively from a straight line.		X	
		Less than 50 % of the braking effort values as referred to in point 1.4.2 reached in relation to the vehicle mass during testing.			X

’;

(x) in the table, item 1.5 is replaced by the following:

‘

1.5. Endurance braking system performance	Visual inspection and, where possible, test whether the system functions, i.e. by road test.	(a) Malfunction indicator indicates a fault.		X	
		(b) System not functioning.		X	

’;

(xi) in the table, item 1.6 is deleted;

(xii) in the table, item 2.6 is deleted;

(xiii) in the table, item 4.1.1 is replaced by the following:

‘

4.1.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source. Multiple light sources (in the case of LED, up to 1/3 not functioning). Seriously affected visibility.	X	X	
		(b) Slightly defective projection system (reflector and lens). Heavily defective or missing projection system (reflector and lens).	X	X	
		(c) Lamp not securely attached.		X	
		(d) System indicates failure for example via the electronic vehicle interface.		X	

’;

(xiv) in the table, item 4.1.5 is replaced by the following:

‘

4.1.5. Manual levelling devices (where mandatory)	Visual inspection and by operation, if possible, or using the electronic vehicle interface.	(a) Device not operating.		X	
		(b) Device cannot be operated from driver's seat.		X	

’;

(xv) in the table, item 4.2.1 is replaced by the following:

‘

‘4.2.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source Multiple light sources (in the case of LED, up to 1/3 not functioning); one of several lateral light sources defective. Seriously affected visibility (in the case of LED, less than 2/3 functioning).	X	 X	
		(b) Defective lens.		X	
		(c) Lamp not securely attached. Very serious risk of falling off.	X	 X	

’;

(xvi) in the table, item 4.3.1 is replaced by the following:

‘

4.3.1. Condition and operation	Visual inspection and by operation	(a) Defective or missing light source. Multiple light sources; in the case of LED up to 1/3 not functioning). Single light sources; in the case of LED less than 2/3 functioning. All light sources not functioning.	X	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 of falling off,	X	 X	

’;

(xvii) in the table, item 4.4.1 is replaced by the following:

‘

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
4.4.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source Multiple light sources (in the case of LED up to 1/3 not functioning). Single light sources; in the case of LED less than 2/3 functioning. No light source functioning.	X	 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 of falling off.	X	 X	

’;

(xviii) in the table, item 4.5.1 is replaced by the following:

‘

4.5.1. Condition and operation	Visual inspection and by operation	(a) Defective or missing light source Multiple light source; in thecase of LED up to 1/3 not functioning.	X		
		Single light sources; in the case of LED less than 2/3 functioning.		X	
		(b) Slightly defective lens (no influence on emitted light).	X		
		Heavily defective lens (emitted light affected).		X	
		(c) Lamp not securely attached.	X		
		Very serious risk of falling off or dazzling oncoming traffic.		X	

’;

(xix) in the table, item 4.6.1 is replaced by the following:

‘

4.6.1. Condition and operation	Visual inspection and by operation.	(a) Defective or missing light source Multiple light sources (in the case of LED up to 1/3 not functioning).	X		
		Single light sources; in the case of LED less than 2/3 functioning.		X	
		(b) Defective lens.	X		
		(c) Lamp not securely attached.	X		
		Very serious risk of falling off.		X	

’;

(xx) in the table, item 4.7.1 is replaced by the following:

‘

4.7.1. Condition and operation	Visual inspection and by operation	(a) Lamp throwing direct or white light to the rear.	X		
		(b) Defective or missing light source (multiple light source). Defective or missing light source (single light source).	X	 X	
		(c) Lamp not securely attached. Very serious risk of falling off.	X	 X	

’;

(xxi) in the table, in item 4.11, the title in the first column is replaced by the following:

‘Electrical wiring (except high-voltage wiring)’;

(xxii) in the table, in item 4.13, the title in the first column is replaced by the following:

‘Battery (or batteries, except high-voltage batteries)’;

(xxiii) in the table, the following item 4.14 is inserted:

‘

4.14 High-voltage systems					
4.14.1 Electrical safety	Visual inspection complemented by using the vehicle interface	(a) Indicator or vehicle interface shows system malfunction		X	
		(b) Software version or -integrity incorrect		X	
4.14.2 Traction battery cover	Visual inspection.	(a) Slightly deteriorated Heavily deteriorated	X		

				X	
		(b) Defective attachment		X	
		Very serious risk of falling off			X
		(c) Obstructed ventilation port(s)	X		
4.14.3 Traction battery	Visual inspection, complemented by using the vehicle interface (where made possible by the technical characteristics of the vehicle, and where the necessary data are available).	(a) Marks of leakage		X	
		Leaking (presence of droplets)			X
		(b) Incorrect software or hardware, or readiness-code not active		X	
4.14.4 High voltage electrical wiring					
4.14.4.1 High voltage wiring harness and connector	Visual inspection and by operation with the vehicle over a pit or on a hoist, including inside the engine compartment and the boot (where applicable)	(a) Slightly deteriorated	X		
		Heavily deteriorated		X	
		Risk of short-circuit fault			X
		(b) Wiring insecure or not adequately secured	X		
		Fixings loose, touching sharp edges, connectors likely to be disconnected		X	
		Wiring likely to touch hot parts, rotating parts or the ground, connectors disconnected			X
		(c) Imminent risk of fire, formation of sparks			X
4.14.4.2 Ground braid, including their attachment	Visual inspection and by operation.	Slightly deteriorated	X		
		Heavily deteriorated		X	
4.14.4.3 Ground continuity (X)[2]	Measurement using an ohmmeter	Test not feasible	X		
		Too high resistance (over 100 Ohms)		X	
4.14.4.4 Charging inlet cover	Visual inspection and by operation.	Deteriorated	X		
		Missing		X	
4.14.4.5 Charging inlet	Visual inspection and by operation.	(a) Deteriorated	X		
		Trace of beginning of melting or electric arcs		X	
		(b) Foreign material or moisture		X	
4.14.4.6 Charging cable	Visual inspection and by operation.	(a) Deteriorated	X		

		(b) Charging cable not provided	X		
4.14.5. High voltage electrical and electronical equipment (X)[2]					
4.14.5.1. High voltage electrical and electronical equipment	Visual inspection and by using the electronic vehicle interface.	(a) Slightly deteriorated Heavily deteriorated	X	 X	
		(b) Attachment defective		X	
		(c) Leaking		X	
4.14.5.2. Traction motor	Visual inspection Check of operational readiness of the systems by an applicable interface (OBD or OBM) Measurement of equipotential bonding, where made possible by the technical characteristics of the vehicle	(a) Shield is deformed, not in-place or damaged, or corroded		X	
		(b) Warning marking missing or illegible		X	
		(c) Connection of wiring harness insecure or corroded		X	
		(d) Electrical insulation damaged or deteriorated likely to cause injury when contacted.		X	 X
		(e) Fault readiness of the traction motor		X	
		(f) Wrong version of type-approved hardware and software not in accordance with the requirements as defined in the ECE R100		X	
4.14.5.3 Electronic converters, motor, and inverter	Visual inspection Check of operational readiness of the systems by an applicable interface (OBD or OBM) Measurement of equipotential bonding, where made possible by the technical characteristics of the vehicle	(a) Not in accordance with requirements[1]		X	
		(b) Inadequately secured		X	
		(c) Damaged or corroded components Likely to cause injuries or to fall off	X	 X	
		(d) Shields not in place or damaged		X	
		(e) Damaged or deteriorated electrical insulation		X	
		(f) Fault readiness of the converter and inverter systems		X	
		(g) Wrong version of type-approved hardware and software		X	

4.14.6. Insulation resistance (X)[2]						
4.14.6.1. Insulation resistance of the vehicle charging inlet and resistance of the protective earthing	Read insulation resistance by the electronic vehicle interface, where made possible by the technical characteristics of the vehicle and where the necessary data is made available	(c) Insulation resistance is not in accordance with requirements or predefined values from the vehicle manufacturer		X		
		(d) Resistance of the protective earthing is not in accordance with requirements		X		
4.14.6.2. Insulation resistance between the high-voltage system and chassis	Visual inspection	(c) Insulation monitoring system shows malfunction		X		
	Read insulation resistance by the electronic vehicle interface, where made possible by the technical characteristics of the vehicle and where the necessary data is made available	(d) Insulation resistance value not in accordance with requirements		X		
4.14.7. Anti-starting system						
4.14.7.1. Anti-starting system	Visual inspection and by operation when possible.	(a) Indicator malfunction	X			
	Functional check by verifying that the vehicle cannot move by itself with the charging cable plugged, and the driver's weight lifted out of the seat	(b) Inoperative, i.e., vehicle can move with connected charging cable or with no driver present		X		

';

(xxiv) in the table, item 5.1.3 is replaced by the following:

'

5.1.3. Wheel bearings (+ E)	Visual inspection using. wheel play detectors if available. 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 demolishment.		X	X
		(b) Wheel bearing too tight, jammed. Danger of overheating; danger of demolishment.		X	X
		(a) Audible signs of bearing wear or damage.		X	

';

(xxv) in the table, items 7.1.3, 7.1.4, 7.1.5, and 7.1.6 are deleted;

(xxvi) in the table, item 7.8 is replaced by the following:

‘

7.8. Speedometer	Visual inspection or by operation during road test or by using the electronic vehicle interface, or any combination of these.	(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 sufficiently illuminated. Not capable of being illuminated at all.	X	 X	

’;

(xxvii) in the table, items 7.9 and 7.10 are deleted;

(xxviii) in the table, item 7.11 is replaced by the following:

‘

7.11. Odometer, if available	Visual inspection, and/or using electronic interface (OBD or OBM)	(a) Obviously manipulated (fraud) to reduce or misrepresent the vehicle's distance record.		X	
		(b) Obviously inoperative.		X	

’;

(xxix) in the table, items 7.12 and 7.13 are deleted;

(xxx) in the table, items 8.1 and 8.2 are replaced by the following:

8.1. Noise

8.1.1. Noise suppression system (+E)	For L-category vehicles powered by internal combustion engines, visual inspection and measurement of noise emitted by stationary vehicle using a sound level meter. For other vehicles, subjective evaluation (unless the inspector considers that the noise level may be borderline, in which case a measurement of noise emitted by stationary vehicle using a sound level 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. Very serious risk of falling off.		X	X
	Measurement using remote sensing equipment	(c) Remote sensing measurement showing significant non-compliance.		X	
8.2. Exhaust emissions					
8.2.1. Exhaust emissions control equipment	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface (OBD or OBM read-out)	(a) Emission control equipment fitted by the manufacturer absent, modified or obviously defective.		X	
		(b) Leaks which would affect emission measurements.		X	
		(c) Warning device malfunctioning, warning indicator / tell-tale inoperative.		X	
		(d) MIL activated, warning device shows system malfunction.		X	
		(e) System indicates failure via the electronic vehicle interface.		X	
		(f) Exhaust emission control unit modified affecting safety and/or the environment.		X	
		(g) Any other emission relevant control unit modified affecting safety and/or the environment.		X	
		(h) Presence of electronic devices not authorised by the vehicle manufacturer nor approved during homologation changing signals to or from the engine or pollution control unit(s).		X	

		(i) Insufficient reagent, if applicable.		X	
		(j) OBD or OBM read-out indicating significant malfunction.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
8.2.2 Exhaust emission measurement – positive ignition engines	Test procedures: For vehicles that had a particle number (PN) limit at type-approval; Euro VI, Euro 6c and newer: Particle number (PN) measurement in accordance with 8.2.2.1. For all vehicles: Gaseous emissions test in accordance with 8.2.2.2. For vehicles as of emission classes Euro VI, Euro 6d-TEMP and newer: NO_X measurement in accordance with 8.2.2.3.				
8.2.2.1 Particle number measurement (E)	Vehicle preconditioning: — [to be specified in accordance with the delegated acts referred to in Article 21]. Measuring instrument preparation: — The device to measure PN is powered on for at least the warm-up time indicated by the manufacturer; — Self-checks of the instrument [to be specified in accordance with the delegated acts referred to in Article 21], to monitor the proper operation of the instrument during operation and trigger a warning or message in case of malfunction; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage. Test procedure: — The software of the particle counter automatically guides the instrument operator	Measurement result exceeds [to be specified in accordance with the delegated acts referred to in Article 21] ($1/cm^3$).		X	

	through the test procedure; — The probe is inserted at least 0,20 m into the outlet of the exhaust system. In justified exemptions where sampling at this depth is not possible, the probe is inserted at least 0,05 m. The sampling probe shall not touch the walls of the tailpipe; — If the exhaust system has more than one outlet, the test shall be done to all of them. In this case, the highest measured PN concentration measured at different exhaust system outlets shall be considered as the vehicle's PN concentration; — The vehicle operates [as specified in accordance with the delegated acts referred to in Article 21]. In case the engine of a vehicle is not switched on at static conditions then the start/stop system shall be deactivated by the test operator. For hybrid and plug-in hybrid vehicles, the thermal engine shall be switched on; — After the probe has been inserted into the tailpipe, the following steps shall be followed: 1. A stabilization period of at least 15 seconds with the engine running at idle speed. 2. After the stabilisation period, the PN concentration emissions are measured. The duration of the test shall be at least [XX] seconds (total measurement duration) [to be specified in accordance with the delegated acts referred to in Article 21]. After the completion of the test procedure, the instrument reports (and stores) the PN concentration of the vehicle and a "PASS" or "FAIL" message: — If the test result is less than or equal to the limit, the instrument reports a "PASS" message. — If the test result is greater than the limit, the				

	instrument reports a “FAIL” message.				
8.2.2.2. Gaseous emissions (E)	Measurement using an exhaust gas analyser in accordance with the requirements[1]. Measurements not applicable for two-stroke engines. Alternatively, measurement using remote sensing equipment and confirmed by standard test methods.	(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 % or — at engine idle: 0,2 % ([8]) — at high idle: 0,1 % 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	
8.2.2.3. NO_x measurement (E)	Vehicle preconditioning: [to be specified in accordance with the delegated acts referred to in Article 21]; - […] Measuring instrument preparation: — [to be specified in accordance with the delegated acts referred to in Article 21) or combined with PN measurement in	(a) Measurement result exceeds [NO_x limit to be specified in accordance with the delegated acts referred to in Article 21].		X	

	accordance with 8.2.2.1]; — Self-checks of the instrument [to be specified in accordance with the delegated acts referred to in Article 21]; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage. Test procedure: — [to be specified in accordance with the delegated acts referred to in Article 21 or combined with PN measurement in accordance with 8.2.2.1]; Alternatively, measurement using remote sensing equipment and confirmed by standard test methods in accordance with item 8.2.2. in this table or with item 8.2.2 in point 3 of Annex I to Directive 2014/45/EU.	(b) OBD or OBM read-out indicating significant malfunction.		X	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
8.2.3 Exhaust emission measurement – compression ignition engines	Test procedures: For vehicles as of emission classes Euro 5b and Euro VI and newer: PN measurement in accordance with 8.2.3.1 For vehicles up to emission classes Euro 5a and Euro V: Opacity measurement in accordance with 8.2.3.2. For vehicles equipped with particle filters, Member States may apply PN measurement in accordance with 8.2.3.1 instead of opacity measurement. For vehicles as of emission classes Euro 6d-TEMP and Euro VI and newer: NO_X measurement in accordance with 8.2.3.3.				
8.2.3.1 Particle number measurement (E)	Vehicle preconditioning: At the beginning of the test the vehicle's engine should be: — Hot, i.e., engine coolant temperature above 60 °C but preferably above 70 °C — Conditioned, by operating for a period of time at low idling and/or performing stationary accelerations up to maximum 2 000 rpm engine speed or by driving. The recommended total conditioning time is at least 300 seconds. During the test, the vehicle shall not be performing an active particulate filter regeneration. A fast pass test is possible with engine coolant temperature below 60 °C. However, if the vehicle fails to pass the test, the test shall be repeated, and the vehicle should fulfil the requirements set for the engine coolant temperature and the conditioning. Measuring instrument preparation: — The instrument is powered on for at least the warm-up time indicated by the manufacturer;	Measurement result exceeds 250 000 ($1/cm^3$) For vehicles up to emission class Euro 5a and Euro V, equipped with particle filters, Member States may apply a limit up to 1 000 000 ($1/cm^3$)		X	

	— Self-checks of the instrument as defined in Section 5 of Commission Recommendation (EU) 2023/688, as adopted on 20 March 2023, to monitor the proper operation of the instrument during operation and trigger a warning or message in case of malfunction; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage. Test procedure: — The software of the particle counter automatically guides the instrument operator through the test procedure; — The probe is inserted at least 0,20 m into the outlet of the exhaust system. In justified exemptions where sampling at this depth is not possible, the probe is inserted at least 0,05 m. The sampling probe shall not touch the walls of the tailpipe; — If the exhaust system has more than one outlet, the test shall be done to all of them. In this case, the highest measured PN concentration measured at different exhaust system outlets shall be considered as the vehicle's PN concentration; — The vehicle operates at low idling. In case the engine of a vehicle is not switched on at static conditions then the start/stop system shall be deactivated by the test operator. For hybrid and plug-in hybrid vehicles, the thermal engine shall be switched on; — After the probe has been inserted into the tailpipe, the following steps shall be followed: 1. A stabilization period of at least 15 seconds with the engine running at idle speed. Optionally, before the stabilization period 2-3 accelerations up to maximum 2 000 rpm engine speed are performed, 2. After the stabilisation period, the PN concentration emissions are measured. The duration of the test shall be at least 15 seconds (total measurement duration). The test result shall be the average PN concentration of the measurement duration. If the measured PN concentration is more than two times the limit, the measurement may stop immediately before waiting for 15 seconds to elapse. The test result shall be reported. After the completion of the test procedure, the instrument				

	reports (and stores) the average PN concentration of the vehicle and a “PASS” or “FAIL” message: — If the test result is less than or equal to the limit, the instrument reports a “PASS” message. — If the test result is greater than the limit, the instrument reports a “FAIL” message.				
8.2.3.2. Opacity Vehicles registered or put into service before 1 January 1980 are exempted from this requirement	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 and, if specified in accordance with the type-approval regulations, reading of OBD in accordance with the manufacturer's recommendations and other requirements. 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.	(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	

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
	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 the 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.	(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} ([9]) or 0,7 m^{-1} ([8])			
	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.				

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
	3. During each free acceleration cycle, the engine shall reach cut-off speed or, 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 categories M_2, M_3, N_2 and N_3, 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 fewer 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 fewer than three free acceleration cycles or after the purging cycles. Alternatively, measurement usingremote sensing equipment and confirmed by standard test methods in accordance with item 8.2.3 of this table or with item 8.2.3 in point 3 of Annex I to Directive 2014/45/EU.				

Item	Method	Reasons for failure	Assessment of deficiencies		
			Minor	Major	Dangerous
8.2.3.3. NO_X measurement (E)	Vehicle preconditioning: Prior to testing, the vehicle's exhaust aftertreatment system shall be warmed up, to the conditions that allow effective abatement of NO_X emissions by the selective catalytic reduction (SCR) unit of the vehicle by at least a 5-minute drive or an equivalent method. Once the condition is reached, the vehicle shall not be turned off and the measurement shall be performed within 3 minutes for M_1 and N_1 vehicles and within 3.5 minutes for M_2, M_3, N_2 and N_3 vehicles. Where possible, the vehicle's readiness to be tested shall be ascertained by checking the indicator lamp on the dashboard or via the vehicle interface (OBD or OBM read-out). During the test, the vehicle shall not be performing an active particulate filter regeneration. Measuring instrument preparation: — The device to measure NO_X emissions is powered on for at least the warm-up time indicated by the manufacturer; — Self-checks of the instrument [to be specified in accordance with the delegated acts referred to in Article 21] to monitor the proper operation of the instrument during operation and trigger a warning or message in case of malfunction; Before each test, the good condition of the sampling system shall be verified, including checking the sampling hose and probe for damage.	(a) Measurement result exceeds 40 ppm		X	

	Test procedure: — The software of the NO_X analyser automatically guides the instrument operator through the test procedure; — The probe is inserted at least 0,20 m into the outlet of the exhaust system. In justified exemptions where sampling at this depth is not possible, the probe is inserted at least 0,05 m. The sampling probe shall not touch the walls of the tailpipe; — If the exhaust system has more than one outlet, the test shall be done to all of them. In this case, the highest measured NO_X concentration measured at different exhaust system outlets shall be considered as the vehicle's NO_X concentration; — The vehicle operates at low idling; — After the probe has been inserted into the tailpipe, the following steps shall be followed: 1. A stabilization period of at least 15 seconds with the engine running at idle speed. 2. After the stabilisation period, the NO_X concentration emissions are measured. The duration of the test shall be at least 15 seconds (total measurement duration). The test result shall be the average NO_X concentration of the measurement duration. After the completion of the test procedure, the instrument reports (and stores) the average NO_X concentration of the vehicle and a "PASS" or "FAIL" message: — If the test result is less than or equal to the limit, the instrument reports a "PASS" message. — If the test result is greater than the limit, the instrument reports a "FAIL" message. Alternatively, measurement usingremote sensing equipment and confirmed by standard test methods in accordance with item 8.2.3 in this table or item 8.2.3 in point 3 of Annex I to Directive 2014/45/EU.				

(xxxi) in the table, item 8.4.1, is replaced by the following:

8.4.1. Fluid leaks	Visual inspection	Any excessive fluid leak, other than water, likely to harm the environment or to pose a safety risk to other road users. Steady formation of drops that constitutes a very serious risk.		X 	 X

(xxxii) in the table, the following item 10 is added:

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10. ELECTRONIC SAFETY SYSTEMS					
10.1. Cornering light Description: during cornering, an extra headlamp is activated. Operates up to 40 km/h, for example in accordance with UNECE-R 48 or UNECE-R 119.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	 X 	 X 	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	 X 	 X 	 X

10.2 Adaptive cruise control Description: The system maintains the vehicle's speed, depending on the preferred speed and distance to the vehicle in front.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged, or sensors obviously misaligned		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.3 Adaptive deflectors Description: Depending on the vehicle's speed, the air deflectors are adjusted in order to improve driving stability.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.4 Airbag Description: In case of an accident, inflatable airbags reduce the risk of injury by their absorbing effect, for example in accordance with UNECE-R 12; UNECE-R 14; or UNECE-R 16.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or components (for example seat occupancy detection) obviously missing.		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	X	X
		(g) System or components obviously not operating (for example not suitable with the vehicle)		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
10.5 Active Headrest Description: the system reduces the danger of a whiplash injury in the event of a rear end collision by changing the position of the headrest towards the head.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
		(g) System or components not operating, where applicable, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
10.6 Active hood Description: by automatically lifting the bonnet, the system ensures a larger collapsible zone in the event of an accident involving a pedestrian.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating (for example outdated), where applicable, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.7 Automatic hold function Description: the system independently holds the vehicle after stopping using the service brake and/or parking brake and automatically releases them when starting.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.8 Automatic headlamp levelling Description: depending on the load and (optional) pitch angle, the system regulates the headlamp's vertical aim, for example in accordance with UNECE-R 121.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.9 Automatic emergency braking system Description: the system independently starts braking in order to avoid a collision with an obstacle or another road user, or to reduce the consequences of an	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged, or sensors obviously misaligned		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

inevitable impact.		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operative (for example audio components)		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.10 Anti-lock braking system Description: the system automatically prevents wheel-locking during braking by selective reduction of the wheel brake force, for example in accordance with UNECE-R 13 and Regulation (EU) 2019/2144.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components (for example wheel speed sensor) damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.11 Automatic light Description: depending on the ambient brightness, the system automatically switches on and off the driving light.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.12 Electro-mechanic power steering Description: the supporting power for steering is generated by an electric motor.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating (for example Power assistance not working), or implausible operation (for example inconsistency between the angle of the steering wheel and the angle of the wheels.) Steering affected		X	 X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.13 Electronic four-wheel steering Description: two axles are steered, with a steering angle greater than 3° on all steered wheels, for example in accordance with UNECE-R 79 and Regulation (EU) 2019/2144.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.14 Electronic damping Description: depending on the driving situation, the rebound and compression stage of the shock absorbers is adjusted by the system.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.15 Electronic brake system Description: a brake pedal sensor and/or pressure sensor records the braking request and calculates the optimal brake force for each wheel, so that there is optimal activation of all wheel brakes.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface, or by road test.	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.16 Electronic stability program Description: the system stabilizes the vehicle or the complete vehicle train in critical, dynamic driving situations, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 140.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component (for example wheel speed sensors) missing		X	
		(b) System or components (for example wheel speed sensors) damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.17 High beam assist Description: the system automatically activates and deactivates the high beam according to the driving situation and lighting conditions.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.18 Speed limiter Description: While driving, the system prevents exceeding a defined maximum speed. Relevant, if mandatory, for example in accordance with UNECE-R 89 and Regulation (EU) 2019/2144.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing (for example seals, plaques), or not fitted in accordance with the requirements.		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation (for example tampered or manipulated, or size of tyres not compatible with calibration parameters, or incorrect set speed, if checked).		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.19 Belt tensioner and belt force limiter Description: In the event of an accident, the seat belt is tensioned to place the passengers in a setpoint position and/or limits the belt force, electrically controlled and, thus, limits the forces acting on the persons for example in accordance with UNECE-R 16 or UNECE-R 94.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing, or not suitable with the vehicle		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
		(g) System or components not operating, where applicable, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	X	X
10.20 Taillight switching Description: Depending on operating status and/or failure of the illuminants, lighting functions are taken over by other luminaires.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.21 Bending light Description: during cornering and depending on the steering angle and speed, the light beam is swivelled and/or an additional headlight is activated, for example in accordance with UNECE-R 48; UNECE-R 98; UNECE-R 112; or	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

UNECE-R 123.		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.22 Steering assist Description: depending on the driving situation, the steering angle is automatically changed, without intervention by the driver. Relevant if the steering intervention occurs at a speed of more than 15 km/h, for example in accordance with UNECE-R 79.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operative (for example audio components)		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.23 Height levelling Description: the system changes the clearance between vehicle chassis and the road.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.24 Emergency braking signal Description: during strong deceleration, hazard warning lights and/or additional luminous surfaces are activated and/or the following traffic is warned by flashing brake lights, for example in accordance with UNECE-R 48 or UNECE-R	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

13.		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(f) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.25 Pre-crash system Description: in a critical driving situation, the vehicle is prepared for the crash so that the risk of injury to the passengers and/or other road users is reduced.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation (for example power windows)		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.26 Tyre pressure warning Description: the system detects loss of tyre pressure through integrated sensors and/or by implausible values for wheel speed, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 141.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.27 Traction control Description: the system prevents the drive wheels spinning during acceleration by applying brake force.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.28 Superimposed steering Description: depending on the driving situation, the system varies the transmission ratio of the steering.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating (for example Power assistance not working), or implausible operation (for example inconsistency between the angle of the steering wheel and the angle of the wheels.) Steering affected		X	X

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.29 Roll over protection (active) Description: in the event of an imminent rollover, support elements are extended to secure the survival space, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 21.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.30 Hydrogen installation Description: the hydrogen is stored in the vehicle and is used to propel the vehicle, either by combustion in an internal combustion engine or by conversion in a fuel cell with an additional electric engine.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.31 Start-up aid Description: aiding start-up, for example by raising the lift axle or by momentarily applying brake pressure or by automatic release of the parking brake.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.32 Trailer stabilization Description: through selective braking of the trailer by the service brakes, the complete vehicle train is stabilised.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.33 Endurance brake Description: an additional braking system that can maintain braking over a period of time without a significant reduction in performance, for example in accordance with UNECE-R 13 and Regulation (EU) 2019/2144.	Visual inspection (with command activated and not activated, if possible) complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing (for example Insecure connectors or mountings)		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(j) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.34 Differential lock deactivation Description: when this system is activated, the differential locks are unlocked depending on parameters (for example wheel slip, steering angle, speed).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation Steering affected		X	X

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.35 Electronically controlled leading and trailing axle Description: the steered axles are additional axles with electronically controlled steering. The steering force is generated by a hydraulic pump or by the lateral force on the wheels.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation Steering affected		X	 X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.36 Electronic steering damper Description: Steering damping is controlled electronically.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where	(a) System or any component missing		X	
		(b) System or components damaged		X	

	the necessary data is made available, with the use of electronic interface	(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation Steering affected		X	X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.37 Bus stop brake Description: the system ensures the application of brake pressure when stationary, independent of the brake pedal activation. Buses can only start moving when the doors are closed.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.38 Kneeling Description: the system allows a road vehicle to be lowered to make it easier for passengers to board and disembark.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

10.39 Steering brake Description: during cornering, dosed braking is applied to one or more wheels.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation Steering affected		X	X
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.40 Tyre pressure control Description: according to the requirement of the driver, the system regulates the tyre pressure.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.41 Sliding joint stabilisation Description: The articulated joint is stabilised by damping, depending on vehicle speed, cylinder pressure of the articulated dampers, steering and articulation-angle.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

10.42 Four-wheel parking brake Description: the system applies the maximum brake pressure in the wheel cylinders at all four wheels.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.43 Front-wheel locking device Description: front wheel suspension, which permits lateral inclination of the motorcycle, can be locked and unlocked by an electric actuator. Above a certain speed, it is automatically unlocked.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.44 Adaptive headlights Description: the illumination of the surrounding road area and/or the direct illumination of road users in the danger area in front of the vehicle is optimised by dynamic adaption of the light beams.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

10.45 Electrically actuated parking brake Description: the parking brake function is triggered or transmitted electronically or electromechanically.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.46 Lane change assistance Description: at a lane change, the system warns the driver about vehicles in the next lane and steers the vehicle back.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.47 Lane keeping assistance Description: the system warns the driver when the vehicle is unintentionally leaving its lane and steers the vehicle back, e.g. in accordance with Regulation (EU) 2019/2144 and Commission Implementing Regulation (EU) 2021/646*.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

10.48 Automatic eCall Description: the system is triggered automatically by in-vehicle sensors or manually, it transmits a minimum set of data (EN 15722) via mobile communication network and establishes an audio connection based on the (emergency) number between the vehicle passengers and the public safety answering point, in accordance with Regulation (EU) 2015/758 of the European Parliament and of the Council**, and Commission Delegated Regulation (EU) 2017/79***.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface The verification of the minimum set of data (MSD) includes checking whether: - the mandatory fields are filled with plausible information; - the deviation between in-vehicle system (IVS) location and true location is less than 150 meters. The calculation can be done according to point 2.5 of Annex I of Commission Delegated Regulation (EU) 2017/79; - the deviation between the MSD timestamp and the timestamp of the reading is less than 60s.	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device (eCall MIL) shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
		(g) System or components not operating, or implausible operation: - audio components (for example failing echo-test); - minimum set of data incorrect		X	
		(h) Other failure (for example mobile network communication device, electronic control unit, or GPS signal failure) Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board	X	 X	 X
10.49 Active roll stabilisation Description: via appropriate actuators the system produces a roll movement which counters the vehicle's body roll movement depending on the current driving situation.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.50 Camera monitor Description: the system which generates at least a part of the indirect field of vision by a camera monitor combination (for example in accordance with UNECE-R 46).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

10.51 Acoustic vehicle alerting Description: at low speed, the system generates an external, specific sound in order to warn, for example pedestrians.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operative, or not respecting type-approved noise levels		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.52 Basic exterior lights Description: the system switches on/switches off the basic lighting devices (for example indicators).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.53 Automated lane keeping system (ALKS) Description: a system which is activated by the driver, and which keeps the vehicle within its lane by controlling the lateral and longitudinal movements of the vehicle for extended periods without the need for further driver input (for example in accordance with UNECE-R 157).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

10.54 Turning assistant Description: a system to inform the driver of a possible collision with a traffic participant (for example bicycle) near side (for example in accordance with UNECE-R 151).	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	 X	 X
10.55 Tachograph Description: a system to record the driving time, breaks, rest periods as well as periods of other work undertaken by a driver, for example, in accordance with Regulation (EU) No 165/2014 of the European Parliament and of the Council****.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing (for example seals, plaques), or not fitted in accordance with the requirements (for example plaque out of date).		X	
		(b) System or components damaged (for example illegible plaque)		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation (for example tampered or manipulated, or size of tyres not compatible with calibration parameters, or incorrect set speed, if checked).		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.56 Intelligent speed assistance Description: system to aid the driver in maintaining the appropriate speed for the road environment by providing dedicated and appropriate feedback, for example in accordance with Regulation (EU) 2019/2144 and Commission Delegated Regulation (EU) 2021/1958*****.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(g) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.57 Reversing detection Description: system to make the driver aware of people and objects at the rear of the vehicle with the primary aim of avoiding collisions when reversing, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 158.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.58 Driver drowsiness and attention warning Description: system that assesses the driver's alertness through vehicle systems analysis and warns the driver if needed, for example in accordance with Regulation (EU) 2019/2144 and Commission	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	

Delegated Regulation (EU) 2021/1341******.		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.59 Advanced driver distraction warning Description: system that helps the driver to continue to pay attention to the traffic situation and that warns the driver when he or she is distracted, for example in accordance with Regulation (EU) 2019/2144 and Commission Delegated Regulation (EU) 2023/2590*******.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.60 Event data recorder Description: system with the only purpose of recording and storing critical crash-related parameters and information shortly before, during and immediately after a collision, for example in accordance with Regulation (EU) 2019/2144, Commission Delegated Regulation (EU) 2022/545********, and UNECE-R 160.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation	X		
		(g) System or components not operating, or implausible operation (for example data not accessible)		X	
		(h) Other failure Not affecting the safe operation	X		
10.61 Automated driving system Description: systems that are capable of performing the entire dynamic driving task of the fully automated vehicle on a sustained basis, for example in accordance with Regulation (EU) 2019/2144 and Commission Implementing Regulation (EU) 2022/1426*********.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	

		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation (for example HMI)		X	
		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
10.62 Driver availability monitoring systems (automated driving) Description: System that assesses whether the driver is capable of taking over the driving function of a self-driving vehicle, if necessary, in certain situations, for example in accordance with Regulation (EU) 2019/2144 and UNECE-R 157.	Visual inspection complemented, where made possible by the technical characteristics of the vehicle and where the necessary data is made available, with the use of electronic interface	(a) System or any component missing		X	
		(b) System or components damaged		X	
		(c) Software version or -integrity incorrect		X	
		(d) Wiring damaged		X	
		(e) Warning device shows system malfunction.		X	
		(f) System indicates failure via the electronic vehicle interface Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X
		(g) System or components not operating, or implausible operation (for example HMI)		X	

		(h) Other failure Not affecting the safe operation Affecting safe operation of the vehicle Danger to health of persons on board or of other road users	X	X	X

* Commission Implementing Regulation (EU) 2021/646 of 19 April 2021 laying down rules for the application of Regulation (EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of motor vehicles with regard to their emergency lane-keeping systems (ELKS) (OJ L 133, 20.4.2021, p. 31, ELI: http://data.europa.eu/eli/reg_impl/2021/646/oj).

** Regulation (EU) 2015/758 of the European Parliament and of the Council of 29 April 2015 concerning type-approval requirements for the deployment of the eCall in-vehicle system based on the 112 service and amending Directive 2007/46/EC (OJ L 123, 19.5.2015, p. 77, ELI: http://data.europa.eu/eli/reg/2015/758/oj).

*** Commission Delegated Regulation (EU) 2017/79 of 12 September 2016 establishing detailed technical requirements and test procedures for the EC type-approval of motor vehicles with respect to their 112-based eCall in-vehicles systems, of 112-based eCall in-vehicle separate technical units and components and supplementing and amending Regulation (EU) 2015/758 of the European Parliament and of the Council with regard to the exemptions and applicable standards (OJ L 12, 17.1.2017, p. 44, ELI: http://data.europa.eu/eli/reg_del/2017/79/oj).

**** Regulation (EU) No 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport, repealing Council Regulation (EEC) No 3821/85 on recording equipment in road transport and amending Regulation (EC) No 561/2006 of the European Parliament and of the Council on the harmonisation of certain social legislation relating to road transport **(**OJ L 60, 28.2.2014, p. 1, ELI: http://data.europa.eu/eli/reg/2014/165/oj).

***** Commission Delegated Regulation (EU) 2021/1958 of 23 June 2021 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of motor vehicles with regard to their intelligent speed assistance systems and for the type-approval of those systems as separate technical units and amending Annex II to that Regulation (OJ L 409, 17.11.2021, p. 1, ELI: http://data.europa.eu/eli/reg_del/2021/1958/oj).

****** Commission Delegated Regulation (EU) 2021/1341 of 23 April 2021 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the

type-approval of motor vehicles with regard to their driver drowsiness and attention warning systems and amending Annex II to that Regulation (OJ L 292, 16.8.2021, p. 4, ELI: http://data.europa.eu/eli/reg_del/2021/1341/oj).

******* Commission Delegated Regulation (EU) 2023/2590 of 13 July 2023 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of certain motor vehicles with regard to their advanced driver distraction warning systems and amending that Regulation (OJ L, 2023/2590, 22.11.2023, ELI: http://data.europa.eu/eli/reg_del/2023/2590/oj).

******** Commission Delegated Regulation (EU) 2022/545 of 26 January 2022 supplementing Regulation (EU) 2019/2144 of the European Parliament and of the Council by laying down detailed rules concerning the specific test procedures and technical requirements for the type-approval of motor vehicles with regard to their event data recorder and for the type-approval of those systems as separate technical units and amending Annex II to that Regulation (OJ L 107, 6.4.2022, p. 18, ELI: http://data.europa.eu/eli/reg_del/2022/545/oj).

********* Commission Implementing Regulation (EU) 2022/1426 of 5 August 2022 laying down rules for the application of Regulation (EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of the automated driving system (ADS) of fully automated vehicles (OJ L 221, 26.8.2022, p. 1, ELI: http://data.europa.eu/eli/reg_impl/2022/1426/oj).

(2) Annex III is amended as follows:

The first sentence in Chapter II, Section 3, is replaced by the following:

‘Table 1 sets out rules that shall be applied during a cargo securing inspection to determine whether the condition of the transport is acceptable.’;

(3) Annex IV is amended as follows:

(a) on the front side of the form, point 6 is replaced by the following:

‘6. Category of vehicle[(a)]

(a) N_1 (up to 3,5 t) □

(b) N_2 (3,5 to 12 t) □

(c) N_3 (more than 12 t) □

(d) O_3 (3,5 to 10 t) □

(e) O_4 (more than 10 t) □

(f) M_2 (more than 9 seats[(b)], up to 5 t) □

(g) M_3 (more than 9 seats[(b)], more than 5 t) □

(h) T1b □

(i) T2b □

(j) T3b □

(k) T4.1b □

(l) T4.2b □

(m) T4.3b □

(n) Other vehicle category:

(please specify).';

(b) point 10 is amended as follows:

(i) point (10) is replaced by the following:

'(10) Electronic safety systems[(f)]';

(ii) the following point (11) is added:

(11) Cargo securing[(f)]';

(c) the reverse side of the form is amended as follows:

(i) the following item 4.14 is inserted:

'4.14 High-voltage systems

4.14.1 Electrical safety

4.14.2 Traction battery cover

4.14.3 Traction battery

4.14.4 High-voltage electrical wiring

4.14.5 High-voltage electrical and electronical equipment

4.14.6 Insulation resistance

4.14.7 Anti-starting system';

(ii) items 8.2.1 to 8.2.2.2 are replaced by the following:

'8.2.1 Exhaust emissions control equipment

8.2.2 Exhaust emission measurement – positive ignition engines

8.2.2.1 Particle number measurement

8.2.2.2 Gaseous emissions

8.2.2.3 NO_X measurement

8.2.3 Exhaust emission measurement – compression ignition engines

8.2.3.1 Particle number measurement

8.2.3.2 Opacity

8.2.3.3 NO_X measurement';

(iii) the following item 10 is added:

'10. Electronic safety systems in accordance with Annex II to Directive 2014/47/EU'.

(4) Annex V is replaced by the following:

‘*ANNEX V*

STANDARD FORM FOR REPORTING TO THE COMMISSION

The standard form shall be drawn up in a computer-processable format andtransmitted by electronic means using standard office software.

Each Member State shall produce both the following tables:

(a) one summary table per year;

(b) for each country of registration of vehicles checked in a more detailed inspection, a separate table containing information on checked and detected deficiencies for each vehicle category.

Summary table

of all (initial and more detailed) inspections

Reporting Member State: Reporting period year [X]

Vehicle Category:	N_1		N_2		N_3		M_2		M_3		O_3		O_4		T1b, T2b, T3b, T4.1b, T4.2b, and T4.3b		Other categories (optional)		Total	
Country of registration	Number of vehicles checked (1)	Number of vehicles failed (2)	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed
Belgium																				
Bulgaria																				
Czech Republic																				
Denmark																				
Germany																				
Estonia																				
Ireland																				
Greece																				
Spain																				
France																				
Croatia																				
Italy																				
Cyprus																				
Latvia																				
Lithuania																				

Vehicle Category:	N_1		N_2		N_3		M_2		M_3		O_3		O_4		T1b, T2b, T3b, T4.1b, T4.2b, and T4.3b		Other categories (optional)		Total	
Country of registration	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed
Luxembourg																				
Hungary																				
Malta																				
Netherlands																				
Austria																				
Poland																				
Portugal																				
Romania																				
Slovenia																				
Slovakia																				
Finland																				
Sweden																				
Albania																				
Andorra																				
Armenia																				
Azerbaijan																				

Vehicle Category:	N_1		N_2		N_3		M_2		M_3		O_3		O_4		T1b, T2b, T3b, T4.1b, T4.2b, and T4.3b		Other categories (optional)		Total	
Country of registration	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed
Belarus																				
Bosnia and Herzegovina																				
Georgia																				
Kazakhstan																				
Liechtenstein																				
Monaco																				
Montenegro																				
North Macedonia																				
Norway																				
Republic of Moldova																				
Russian Federation																				
San Marino																				
Serbia																				
Switzerland																				
Tajikistan																				
Türkiye																				
Turkmenistan																				

Vehicle Category:	N_1		N_2		N_3		M_2		M_3		O_3		O_4		T1b, T2b, T3b, T4.1b, T4.2b, and T4.3b		Other categories (optional)		Total	
Country of registration	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed
Ukraine																				
United Kingdom																				
Uzbekistan																				
Other third countries (please specify)																				

([1]) Total number of vehicles checked (at initial and more detailed inspections), including those without deficiencies, as well as those with minor, major or dangerous deficiencies.

([2]) Failed vehicles with major or dangerous deficiencies as per Annex IV.

Results of more detailed inspections

Reporting Member State:

Name of the reporting Member State

Country of Registration: PERIOD: year [x]

Name of the country of vehicle registration

Vehicle Category:	N_1		N_2		N_3		M_2		M_3		O_3		O_4		T1b, T2b, T3b, T4.1b, T4.2b, and T4.3b		Other categories (optional)		Total	
	Number of vehicles checked (1)	Number of vehicles failed (2)	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed

Defect detail

	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed
(0) Identification																				
(1) Braking equipment																				
(2) Steering																				
(3) Visibility																				
(4) Lighting equipment and electrical system																				
(5) Axles, wheels, tyres, suspension																				
(6) Chassis and chassis attachments																				

Vehicle Category:	N_1		N_2		N_3		M_2		M_3		O_3		O_4		T1b, T2b, T3b, T4.1b, T4.2b, and T4.3b		Other categories (optional)		Total	
	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed	Number of vehicles checked	Number of vehicles failed
	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed	Checked	Failed
(7) Other equipment including tachograph and speed limitation devices																				
(8) Nuisance including emissions and spillage of fuel and/or oil																				
(9) Supplementary tests for M_2/M_3																				
(10) Electronic safety systems																				
(11) Cargo securing																				
Total number of failures																				

([1]) Total number of vehicles checked (at initial and more detailed inspections), including those without deficiencies, as well as those with minor, major or dangerous deficiencies.

([2]) Failed vehicles with major or dangerous deficiencies as per Annex IV.