Council of the European Union

Brussels, 1 February 2016
(OR. en)

5712/16
ADD 1

Interinstitutional File:
2016/0014 (COD)

ENT 20
MI 45
CODEC 103

PROPOSAL

From:	Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director
date of receipt:	28 January 2016
To:	Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of the European Union
No. Cion doc.:	COM(2016) 31 final ANNEXES 1 to 19
Subject:	ANNEXES to the proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles

Delegations will find attached document COM(2016) 31 final ANNEXES 1 to 19.

Encl.: COM(2016) 31 final ANNEXES 1 to 19

EUROPEAN
COMMISSION

Brussels, 27.1.2016
COM(2016) 31 final

ANNEXES 1 to 19

ANNEXES

to the proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles

{SWD(2016) 9 final}
{SWD(2016) 10 final}

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ANNEX I

INFORMATION DOCUMENT - COMPLETE LIST OF INFORMATION FOR THE PURPOSE OF EU TYPE-APPROVAL OF VEHICLES, SYSTEMS, COMPONENTS OR SEPARATE TECHNICAL UNITS ([a])

PART I

The information documents for the purpose of EU type-approval of vehicles, systems, components or separate technical units as required for by this Regulation and the regulatory acts referred to in Annex IV shall consist only of extracts from, and adhere to the item numbering system of, this complete list.

The following information shall be supplied in triplicate and include a list of contents. Any drawings shall be supplied in appropriate scale and in sufficient detail on size A4 or on a folder of A4 format. Photographs, if any, shall show sufficient detail.

If the systems, components or separate technical units referred to in this annex have electronic controls, information concerning their performance shall be supplied.

1. **GENERAL**

1.1. Make (trade name of manufacturer): …

1.2. Type: …

1.2.0.1. Chassis: …

1.2.0.2. Bodywork/complete vehicle: …

1.2.1. Commercial name(s) (if available): …

1.2.2. For multi-stage type-approved vehicles, type-approval information of the base/previous stage vehicle (list the information for each stage. This can be done with a matrix)

Type: ……

Variant(s): ……..

Version(s): ……...

Type-approval number, including extension number …….

1.3. Means of identification of type, if marked on the vehicle / component / separate technical unit ([1]) ([b]): …

1.3.0.1. Chassis: …

1.3.0.2. Bodywork/complete vehicle: …

1.3.1. Location of that marking: …

1.3.1.1. Chassis: …

1.3.1.2. Bodywork/complete vehicle: …

1.4. Category of vehicle ([c]): …

1.4.1. Classification(s) according to the dangerous goods which the vehicle is intended to transport: …

1.5. Company name and address of manufacturer: …

1.5.1. For multi-stage type-approved vehicles, company name and address of the manufacturer of the base/previous stage(s) vehicle……

1.6. Location and method of attachment of statutory plates and location of vehicle identification number: …

1.6.1. On the chassis: …

1.6.2. On the bodywork: …

1.7. (Not attributed)

1.8. Name(s) and address(es) of assembly plant(s): …

1.9. Name and address of the manufacturer's representative (if any): …

2. **GENERAL CONSTRUCTION CHARACTERISTICS**

2.1. Photographs and/or drawings of a representative vehicle / component / separate technical unit ([1]): …

2.2. Dimensional drawing of the whole vehicle: …

2.3. Number of axles and wheels: …

2.3.1. Number and position of axles with twin wheels: …

2.3.2. Number and position of steered axles: …

2.3.3. Powered axles (number, position, interconnection): …

2.4. Chassis (if any) (overall drawing): …

2.5. Material used for the side-members ([d]): …

2.6. Position and arrangement of the engine: …

2.7. Driving cab (forward control or bonneted) ([e]): …

2.8. Hand of drive: left/right ([1]).

2.8.1. Vehicle is equipped to be driven in right/left ([1]) hand traffic.

2.9. Specify if the towing vehicle is intended to tow semi-trailers or other trailers and, if the trailer is a semi-, drawbar-, centre-axle- or rigid drawbar trailer: …

2.10. Specify if the vehicle is specially designed for the controlled-temperature carriage of goods: …

3. **MASSES AND DIMENSIONS** ([f]) ([g]) ([6])

(in kg and mm) (Refer to drawing where applicable)

3.1. **Wheelbase(s) (fully loaded)** ([g1])**:**

3.1.1. Two-axle vehicles: …

3.1.2. Vehicles with three or more axles

3.1.2.1. Axle spacing between consecutive axles going from the foremost to the rearmost axle: …

3.1.2.2. Total axle spacing: …

3.2. **Fifth wheel**

3.2.1. In the case of semi-trailers

3.2.1.1. Distance between the axis of the fifth wheel kingpin and the rearmost end of the semi-trailer: …

3.2.1.2. Maximum distance between the axis of the fifth wheel kingpin and any point on the front of the semi-trailer: …

3.2.1.3. Semi-trailer reference wheelbase (as required in point 3.2 of Part D of Annex I to Commission Regulation (EU) No 1230/2012[1]: …

3.2.2. In the case of semi-trailer towing vehicles

3.2.2.1. Fifth wheel lead (maximum and minimum; indicate the permissible values in the case of an incomplete vehicle) ([g2]): …

3.2.2.2. Maximum height of the fifth wheel (standardised) ([g3]): …

3.3. **Axle track(s) and width(s)**

3.3.1. Track of each steered axle ([g4]): …

3.3.2. Track of all other axles ([g4]): …

3.3.3. Width of the widest rear axle: …

3.3.4. Width of the foremost axle (measured at the outermost part of the tyres excluding the bulging of the tyres close to the ground): …

3.4. **Range of vehicle dimensions (overall)**

3.4.1. For chassis without bodywork

3.4.1.1. Length ([g5]): …

3.4.1.1.1. Maximum permissible length: …

3.4.1.1.2. Minimum permissible length: …

3.4.1.1.3. In the case of trailers, maximum permissible drawbar length ([g6]): …

3.4.1.2. Width ([g7]): …

3.4.1.2.1. Maximum permissible width: …

3.4.1.2.2. Minimum permissible width: …

3.4.1.3. Height (in running order) ([g8]) (for suspensions adjustable for height, indicate normal running position): …

3.4.1.4. Front overhang ([g9]): …

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[1] Commission Regulation (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council (OJ L 353, 21.12.2012, p. 31).

3.4.1.4.1. Approach angle ([g10]): …… degrees.

3.4.1.5. Rear overhang ([g11]): …

3.4.1.5.1. Departure angle ([g12]): …… degrees.

3.4.1.5.2. Minimum and maximum permissible overhang of the coupling point ([g13]): …

3.4.1.6. Ground clearance (as measured in accordance with point 3 of Appendix 1 to Annex II)

3.4.1.6.1. Between the axles: …

3.4.1.6.2. Under the front axle(s): …

3.4.1.6.3. Under the rear axle(s): …

3.4.1.7. Ramp angle ([g14]): …… degrees.

3.4.1.8. Extreme permissible positions of the centre of gravity of the body and/or interior fittings and/or equipment and/or payload: …

3.4.2. For chassis with bodywork

3.4.2.1. Length ([g5]): …

3.4.2.1.1. Length of the loading area: …

3.4.2.1.2. In the case of trailers, maximum permissible drawbar length ([g6]): …

3.4.2.2. Width ([g7]): …

3.4.2.2.1. Thickness of the walls (in the case of vehicles designed for controlled-temperature carriage of goods): …

3.4.2.3. Height (in running order) ([g8]) (for suspensions adjustable for height, indicate normal running position): …

3.4.2.4. Front overhang ([g9]): …

3.4.2.4.1. Approach angle ([g10]): …… degrees.

3.4.2.5. Rear overhang ([g11]): …

3.4.2.5.1. Departure angle ([g12]): …… degrees.

3.4.2.5.2. Minimum and maximum permissible overhang of the coupling point ([g13]): …

3.4.2.6. Ground clearance (as measured in accordance with point 3 of Appendix 1 to Annex II)

3.4.2.6.1. Between the axles: …

3.4.2.6.2. Under the front axle(s): …

3.4.2.6.3. Under the rear axle(s): …

3.4.2.7. Ramp angle ([g14]): …… degrees.

3.4.2.8. Extreme permissible positions of the centre of gravity of the payload (in the case of non-uniform load): …

3.4.2.9. Position of centre of gravity of the vehicle (M_2 and M_3) at its technically permissible maximum laden mass in the longitudinal, transverse and vertical directions: …

3.4.3. For bodywork approved without chassis (vehicles M_2 and M_3)

3.4.3.1. Length ([g5]): …

3.4.3.2. Width ([g7]): …

3.4.3.3. Nominal height (in running order) ([g8]) on intended chassis type(s) (for suspensions adjustable for height, indicate normal running position): …

3.5. **Minimum mass on the steering axle(s) for incomplete vehicles:** …

3.6. **Mass in running order** ([h])

(a) minimum and maximum for each variant: …

(b) mass of each version (a matrix must be provided): …

3.6.1. Distribution of this mass among the axles and, in the case of a semi-trailer, a centre-axle trailer or a rigid drawbar trailer, the mass on the coupling point: …

(a) minimum and maximum for each variant: …

(b) mass of each version (a matrix must be provided): …

3.6.2. Mass of the optional equipment (as provided for in points (4) and (5) of Article 2 of Regulation (EU) No 1230/2012): …

3.7. **Minimum mass of the completed vehicle** as stated by the manufacturer, in the case of an incomplete vehicle: …

3.7.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point: …

3.8. **Technically permissible maximum laden mass** stated by the manufacturer ([i]) ([3]): …

3.8.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point ([3]): …

3.9. **Technically permissible maximum mass on each axle:** …

3.10. **Technically permissible mass on each group of axles:** …

3.11. **Technically permissible maximum towable mass of the towing vehicle**

in case of:

3.11.1. Drawbar trailer: …

3.11.2. Semi-trailer: …

3.11.3. Centre-axle trailer: …

3.11.3.1. Maximum ratio of the coupling overhang ([j]) to the wheel base: …

3.11.3.2. Maximum V-value: …… kN.

3.11.4. Rigid drawbar trailer: …

3.11.5. Technically permissible maximum laden mass of the combination ([3]): …

3.11.6. Maximum mass of unbraked trailer: …

3.12. **Technically permissible maximum mass at the coupling point:**

3.12.1. Of a towing vehicle: …

3.12.2. Of a semi-trailer, a centre-axle trailer or a rigid drawbar trailer: …

3.12.3. Maximum permissible mass of the coupling device (if not fitted by the manufacturer): …

3.13. **Rear swing-out** (Points 6 and 7 of Part C of Annex I to Regulation (EU) No 1230/2012): …

3.14. **Engine power/maximum mass ratio**: …… kW/kg.

3.14.1. Engine power/technically permissible maximum laden mass of the combination ratio (Point 5 of Part C of Annex I to Regulation (EU) No 1230/2012): ……kW/kg.

3.15. **Hill-starting ability** (solo vehicle) ([4]): …… %.

3.16. **Registration/in service maximum permissible masses (optional)**

3.16.1. Registration/in service maximum permissible laden mass: …

3.16.2. Registration/in service maximum permissible mass on each axle and, in the case of a semi-trailer or centre-axle trailer, intended load on the coupling point stated by the manufacturer if lower than the technically permissible maximum mass on the coupling point: …

3.16.3. Registration/in service maximum permissible mass on each group of axles: …

3.16.4. Registration/in service maximum permissible towable mass: …

3.16.5. Registration/in service maximum permissible mass of the combination: …

3.17. Vehicle submitted to multi-stage type-approval (only in the case of incomplete or completed vehicles of category N_1 within the scope of Regulation (EC) No 715/2007: yes/no ([1])

3.17.1. Mass of the base vehicle in running order: …kg.

3.17.2. Default added mass, calculated in accordance with Point 5 of Annex XII to Regulation (EC) No 692/2008: …kg.

4. **POWER PLANT** ([k])

4.1. **Manufacturer of the engine:** …

4.1.1. Manufacturer's engine code (as marked on the engine) or other means of identification: …

4.1.2. Approval number (if appropriate) including fuel identification marking: …

(heavy-duty vehicles only)

4.2. **Internal combustion engine**

4.2.1. *Specific engine information*

4.2.1.1. Working principle: positive ignition/compression ignition/dual-fuel ([1])

Cycle: four stroke/two stroke/rotary ([1])

4.2.1.1.1. Type of dual-fuel engine: Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1]) ([x1])

4.2.1.1.2. Gas energy ratio over the hot part of the WHTC test-cycle: … %

4.2.1.2. Number and arrangement of cylinders: …

4.2.1.2.1. Bore ([l]): …… mm

4.2.1.2.2. Stroke ([l]): …… mm

4.2.1.2.3. Firing order: …

4.2.1.3. Engine capacity ([m]): …… cm^3

4.2.1.4. Volumetric compression ratio ([2]): …

4.2.1.5. Drawings of combustion chamber, piston crown and, in the case of positive ignition engines, piston rings: …

4.2.1.6. Normal engine idling speed ([2]): …… min^{-1}

4.2.1.6.1. High engine idling speed ([2]): …… min^{-1}

4.2.1.6.2. Idle on diesel: yes/no ([1]) ([x1])

4.2.1.7. Carbon monoxide content by volume in the exhaust gas with the engine idling ([2]): …… % as stated by the manufacturer (positive ignition engines only)

4.2.1.8. Maximum net power ([n]): … kW at … min^{-1} (manufacturer's declared value)

4.2.1.9. Maximum permitted engine speed as prescribed by the manufacturer: … min^{-1}

4.2.1.10. Maximum net torque ([n]): … Nm at … min^{-1} (manufacturer's declared value)

4.2.1.11. (Euro VI only) Manufacturer references of the Documentation package required by Articles 5, 7 and 9 of Regulation (EU) No 582/2011 enabling the approval authority to evaluate the emission control strategies and the Systems on-board the engine to ensure the correct operation of NO_x control measures

4.2.2. *Fuel*

4.2.2.1. Light-duty vehicles: Diesel/Petrol/LPG/NG or Biomethane/Ethanol (E 85)/Biodiesel/Hydrogen/H_2NG ([1]) ([6])

4.2.2.2. Heavy duty vehicles Diesel/Petrol/LPG/NG-H/NG-L/NG-HL/Ethanol (ED95)/Ethanol (E85)/LNG/LNG_{20}/ ([1])([6])

4.2.2.2.1. (Euro VI only) Fuels compatible with use by the engine declared by the manufacturer in accordance with point 1.1.2 of Annex I to Regulation (EU) No 582/2011 (as applicable)

4.2.2.3. Fuel tank inlet: restricted orifice/label ([1])

4.2.2.4. Vehicle fuel type: Mono fuel, Bi fuel, Flex fuel ([1])

4.2.2.5. Maximum amount of biofuel acceptable in fuel (manufacturer's declared value): … % by volume

4.2.3. *Fuel tank(s)*

4.2.3.1. Service fuel tank(s)

4.2.3.1.1. Number and capacity of each tank: …

4.2.3.1.1.1. Material: …

4.2.3.1.2. Drawing and technical description of the tank(s) with all connections and all lines of the breathing and venting system, locks, valves, fastening devices: …

4.2.3.1.3. Drawing clearly showing the position of the tank(s) in the vehicle: …

4.2.3.2. Reserve fuel tank(s)

4.2.3.2.1. Number and capacity of each tank: …

4.2.3.2.1.1. Material: …

4.2.3.2.2. Drawing and technical description of the tank(s) with all connections and all lines of the breathing and venting system, locks, valves, fastening devices: …

4.2.3.2.3. Drawing clearly showing the position of the tank(s) in the vehicle: …

4.2.4. *Fuel feed*

4.2.4.1. By carburettor(s): yes/no ([1])

4.2.4.2. By fuel injection (compression ignition or dual-fuel only): yes/no ([1])

4.2.4.2.1. System description: …

4.2.4.2.2. Working principle: direct injection/pre-chamber/swirl chamber ([1])

4.2.4.2.3. Injection pump

4.2.4.2.3.1. Make(s): …

4.2.4.2.3.2. Type(s): …

4.2.4.2.3.3. Maximum fuel delivery ([1]) ([2]): …… mm^3 /stroke or cycle at an engine speed of: … min^{-1} or, alternatively, a characteristic diagram: …

(When boost control is supplied, state the characteristic fuel delivery and boost pressure versus engine speed)

4.2.4.2.3.4. Static injection timing ([2]): …

4.2.4.2.3.5. Injection advance curve ([2]): …

4.2.4.2.3.6. Calibration procedure: test bench/engine ([1])

4.2.4.2.4. Governor

4.2.4.2.4.1. Type: …

4.2.4.2.4.2. Cut-off point

4.2.4.2.4.2.1. Speed at which cut-off starts under load: …… min^{-1}

4.2.4.2.4.2.2. Maximum no-load speed: …… min^{-1}

4.2.4.2.4.2.3. Idling speed: ….. min^{-1}

4.2.4.2.5. Injection piping (heavy-duty vehicles only)

4.2.4.2.5.1. Length: …… mm

4.2.4.2.5.2. Internal diameter: …… mm

4.2.4.2.5.3. Common rail, make and type: …

4.2.4.2.6. Injector(s)

4.2.4.2.6.1. Make(s): …

4.2.4.2.6.2. Type(s): …

4.2.4.2.6.3. Opening pressure ([2]): … kPa or characteristic diagram ([é]): …

4.2.4.2.7. Cold start system

4.2.4.2.7.1. Make(s): …

4.2.4.2.7.2. Type(s): …

4.2.4.2.7.3. Description: …

4.2.4.2.8. Auxiliary starting aid

4.2.4.2.8.1. Make(s): …

4.2.4.2.8.2. Type(s): …

4.2.4.2.8.3. System description: …

4.2.4.2.9. Electronic controlled injection: yes/no ([1])

4.2.4.2.9.1. Make(s): …

4.2.4.2.9.2. Type(s):

4.2.4.2.9.3. Description of the system (in the case of systems other than continuous injection give equivalent details): …

4.2.4.2.9.3.1. Make and type of the electronic control unit (ECU): …

4.2.4.2.9.3.2. Make and type of the fuel regulator: …

4.2.4.2.9.3.3. Make and type of the air-flow sensor: …

4.2.4.2.9.3.4. Make and type of fuel distributor: …

4.2.4.2.9.3.5. Make and type of the throttle housing: …

4.2.4.2.9.3.6. Make and type of water temperature sensor: …

4.2.4.2.9.3.7. Make and type of air temperature sensor: …

4.2.4.2.9.3.8. Make and type of air pressure sensor: …

4.2.4.2.9.3.9. Software calibration number(s): …

4.2.4.3. By fuel injection (positive ignition only): yes/no ([1])

4.2.4.3.1. Working principle: intake manifold (single-/multi-point/direct injection ([1]) /other (specify): …

4.2.4.3.2. Make(s): …

4.2.4.3.3. Type(s): …

4.2.4.3.4. System description (In the case of systems other than continuous injection give equivalent details): …

4.2.4.3.4.1. Make and type of the electronic control unit (ECU): …

4.2.4.3.4.2. Make and type of fuel regulator: …

4.2.4.3.4.3. Make and type of air-flow sensor: …

4.2.4.3.4.4. Make and type of fuel distributor: …

4.2.4.3.4.5. Make and type of pressure regulator: …

4.2.4.3.4.6. Make and type of micro switch: …

4.2.4.3.4.7. Make and type of idling adjustment screw: …

4.2.4.3.4.8. Make and type of throttle housing: …

4.2.4.3.4.9. Make and type of water temperature sensor: …

4.2.4.3.4.10. Make and type of air temperature sensor: …

4.2.4.3.4.11. Make and type of air pressure sensor: …

4.2.4.3.4.12. Software calibration number(s): …

4.2.4.3.5. Injectors: opening pressure ([2]): …… kPa or characteristic diagram: …

4.2.4.3.5.1. Make: …

4.2.4.3.5.2. Type: …

4.2.4.3.6. Injection timing: …

4.2.4.3.7. Cold start system

4.2.4.3.7.1. Operating principle(s): …

4.2.4.3.7.2. Operating limits/settings ([1]) ([2]): …

4.2.4.4. Feed pump

4.2.4.4.1. Pressure ([2]): … kPa or characteristic diagram ([2]): …

4.2.5. *Electrical system*

4.2.5.1. Rated voltage: …… V, positive/negative ground ([1])

4.2.5.2. Generator

4.2.5.2.1. Type: …

4.2.5.2.2. Nominal output: …… VA

4.2.6. *Ignition system (spark ignition engines only)*

4.2.6.1. Make(s): …

4.2.6.2. Type(s): …

4.2.6.3. Working principle: …

4.2.6.4. Ignition advance curve or map ([2]): …

4.2.6.5. Static ignition timing ([2]): …… degrees before TDC

4.2.6.6. Spark plugs

4.2.6.6.1. Make: …

4.2.6.6.2. Type: …

4.2.6.6.3. Gap setting: ……mm

4.2.6.7. Ignition coil(s)

4.2.6.7.1. Make: …

4.2.6.7.2. Type: …

4.2.7. *Cooling system: liquid/air* ([1])

4.2.7.1. Nominal setting of the engine temperature control mechanism: …

4.2.7.2. Liquid

4.2.7.2.1. Nature of liquid: …

4.2.7.2.2. Circulating pump(s): yes/no ([1])

4.2.7.2.3. Characteristics: …….or

4.2.7.2.3.1. Make(s): …

4.2.7.2.3.2. Type(s): …

4.2.7.2.4. Drive ratio(s): …

4.2.7.2.5. Description of the fan and its drive mechanism: …

4.2.7.3. Air

4.2.7.3.1. Fan: yes/no ([1])

4.2.7.3.2. Characteristics: …….or

4.2.7.3.2.1. Make(s): …

4.2.7.3.2.2. Type(s): …

4.2.7.3.3. Drive ratio(s): …

4.2.8. *Intake system*

4.2.8.1. Pressure charger: yes/no ([1])

4.2.8.1.1. Make(s): …

4.2.8.1.2. Type(s): …

4.2.8.1.3. Description of the system (e.g. maximum charge pressure: …… kPa; wastegate where applicable): …

4.2.8.2. Intercooler: yes/no ([1])

4.2.8.2.1. Type: air-air/air-water ([1])

4.2.8.3. Intake depression at rated engine speed and at 100 % load (compression ignition engines only)

4.2.8.3.1. Minimum allowable: ……. kPa

4.2.8.3.2. Maximum allowable: …… kPa

4.2.8.3.3. (Euro VI only) Actual Intake system depression at rated engine speed and at 100 % load on the vehicle: … kPa

4.2.8.4. Description and drawings of inlet pipes and their accessories (plenum chamber, heating device, additional air intakes, etc.): …

4.2.8.4.1. Intake manifold description (include drawings and/or photos): …

4.2.8.4.2. Air filter, drawings: …or

4.2.8.4.2.1. Make(s): …

4.2.8.4.2.2. Type(s): …

4.2.8.4.3. Intake silencer, drawings: …or

4.2.8.4.3.1. Make(s): …

4.2.8.4.3.2. Type(s): …

4.2.9. *Exhaust system*

4.2.9.1. Description and/or drawing of the exhaust manifold: …

4.2.9.2. Description and/or drawing of the exhaust system: …

4.2.9.2.1. (Euro VI only) Description and/or drawing of the elements of the exhaust system that are part of the engine system

4.2.9.3. Maximum allowable exhaust back pressure at rated engine speed and at 100 % load (compression ignition engines only): …… kPa

4.2.9.3.1. (Euro VI only) Actual exhaust back pressure at rated engine speed and at 100 % load on the vehicle (compression-ignition engines only): … kPa

4.2.9.4. Type, marking of exhaust silencer(s): …

Where relevant for exterior noise, reducing measures in the engine compartment and on the engine: …

4.2.9.5. Location of the exhaust outlet: …

4.2.9.6. Exhaust silencer containing fibrous materials: …

4.2.9.7. Complete exhaust system volume: …… dm^3

4.2.9.7.1. (Euro VI only) Acceptable Exhaust system volume: … dm^3

4.2.9.7.2. (EURO VI only) Volume of the exhaust system that is part of the engine system: … dm^3

4.2.10. *Minimum cross-sectional areas of inlet and outlet ports: …*

4.2.11. *Valve timing or equivalent data*

4.2.11.1. Maximum lift of valves, angles of opening and closing, or timing details of alternative distribution systems, in relation to dead centres. For variable timing system, minimum and maximum timing: …

4.2.11.2. Reference and/or setting ranges ([1]): …

4.2.12. *Measures taken against air pollution*

4.2.12.1. Device for recycling crankcase gases (description and drawings): …

4.2.12.1.1. (Euro VI only) Device for recycling crankcase gases: yes/no ([2])

If yes, description and drawings:

If no, compliance with Annex V to Regulation (EU) No 582/2011 required

4.2.12.2. Additional pollution control devices (if any, and if not covered by another heading)

4.2.12.2.1. Catalytic converter: yes/no ([1])

4.2.12.2.1.1. Number of catalytic converters and elements (provide the information for each separate unit in the following] points): …

4.2.12.2.1.2. Dimensions, shape and volume of the catalytic converter(s): …

4.2.12.2.1.3. Type of catalytic action: …

4.2.12.2.1.4. Total charge of precious metals: …

4.2.12.2.1.5. Relative concentration: …

4.2.12.2.1.6. Substrate (structure and material): …

4.2.12.2.1.7. Cell density: …

4.2.12.2.1.8. Type of casing for the catalytic converter(s): …

4.2.12.2.1.9. Location of the catalytic converter(s) (place and reference distance in the exhaust line): …

4.2.12.2.1.10. Heat shield: yes/no ([1])

4.2.12.2.1.11. Regeneration systems/method of exhaust after-treatment systems, description: …

4.2.12.2.1.11.1. Number of Type I operating cycles (or equivalent engine bench cycles) between two cycles where regenerative phases occur under the conditions equivalent to Type I test (Distance 'D' in Figure 1 in Annex 13 to UNECE Regulation No 83): …

4.2.12.2.1.11.2. Description of method employed to determine the number of cycles between two cycles where regenerative phases occur: …

4.2.12.2.1.11.3. Parameters to determine the level of loading required before regeneration occurs (i.e. temperature, pressure etc.): …

4.2.12.2.1.11.4. Description of method used to load system in the test procedure described in paragraph 3.1 of Annex 13 to UNECE Regulation No 83): …

4.2.12.2.1.11.5. Normal operating temperature range: …… K

4.2.12.2.1.11.6. Consumable reagents: yes/no ([1])

4.2.12.2.1.11.7. Type and concentration of reagent needed for catalytic action: …

4.2.12.2.1.11.8. Normal operational temperature range of reagent: …… K

4.2.12.2.1.11.9. International standard: …

4.2.12.2.1.11.10. Frequency of reagent refill: continuous/maintenance ([1])

4.2.12.2.1.12. Make of catalytic converter: …

4.2.12.2.1.13. Identifying part number: …

4.2.12.2.2. Oxygen sensor: yes/no ([1])

4.2.12.2.2.1. Make: …

4.2.12.2.2.2. Location: …

4.2.12.2.2.3. Control range: …

4.2.12.2.2.4. Type: …

4.2.12.2.2.5. Identifying part number: …

4.2.12.2.3. Air injection: yes/no ([1])

4.2.12.2.3.1. Type (pulse air, air pump, etc.): …

4.2.12.2.4. Exhaust gas recirculation (EGR): yes/no ([1])

4.2.12.2.4.1. Characteristics (make, type, flow, etc.): …

4.2.12.2.4.2. Water-cooled system: yes/no ([1])

4.2.12.2.5. Evaporative emissions control system: yes/no ([1])

4.2.12.2.5.1. Detailed description of the devices and their state of tune: …

4.2.12.2.5.2. Drawing of the evaporative control system: …

4.2.12.2.5.3. Drawing of the carbon canister: …

4.2.12.2.5.4. Mass of dry charcoal: …… g

4.2.12.2.5.5. Schematic drawing of the fuel tank with indication of capacity and material: …

4.2.12.2.5.6. Drawing of the heat shield between tank and exhaust system: …

4.2.12.2.6. Particulate trap (PT): yes/no ([1])

4.2.12.2.6.1. Dimensions, shape and capacity of the particulate trap: …

4.2.12.2.6.2. Design of the particulate trap: …

4.2.12.2.6.3. Location (reference distance in the exhaust line): …

4.2.12.2.6.4. Method or system of regeneration, description and/or drawing: …

4.2.12.2.6.4.1. Number of Type I operating cycles (or equivalent engine bench cycles) between two cycles where regenerative phases occur under the conditions equivalent to Type I test (Distance 'D' in Figure 1 in Annex 13 to UNECE Regulation No 83): …

4.2.12.2.6.4.2. Description of method employed to determine the number of cycles between two cycles where regenerative phases occur: …

4.2.12.2.6.4.3. Parameters to determine the level of loading required before regeneration occurs (i.e. temperature, pressure etc.): …

4.2.12.2.6.4.4. Description of method used to load system in the test procedure described in paragraph 3.1 of Annex 13 to UNECE Regulation No 83): …

4.2.12.2.6.5. Make of particulate trap: …

4.2.12.2.6.6. Identifying part number: …

4.2.12.2.6.7. Normal operating temperature: … (K) and pressure range … (kPa)

(heavy-duty vehicles only)

4.2.12.2.6.8. In the case of periodic regeneration (heavy-duty vehicles only)

4.2.12.2.6.8.1. Number of ETC test cycles between 2 regenerations (n1): … (not applicable to Euro VI)

4.2.12.2.6.8.1.1. (Euro VI only) Number of WHTC test cycles without regeneration (n):

4.2.12.2.6.8.2. Number of ETC cycles during regeneration (n2): … (not applicable to Euro VI)

4.2.12.2.6.8.2.1. (Euro VI only) Number of WHTC test cycles with regeneration (n_R):

4.2.12.2.6.9. Other systems: yes/no ([1])

4.2.12.2.6.9.1. Description and operation

4.2.12.2.7.1. On-board-diagnostic (OBD) system: yes/no ([1]): …

4.2.12.2.7.1.1. (Euro VI only) Number of OBD engine families within the engine family

4.2.12.2.7.1.2. List of the OBD engine families (where applicable)

4.2.12.2.7.1.3. Number of the OBD engine family the parent engine / the engine member belongs to:

4.2.12.2.7.1.4. Manufacturer references of the OBD-Documentation required by Article 5(4)(c) and Article 9(4) of Regulation (EU) No 582/2011 and specified in Annex X to that Regulation for the purpose of approving the OBD system

4.2.12.2.7.1.5. When appropriate, manufacturer reference of the Documentation for installing in a vehicle an OBD equipped engine system

4.2.12.2.7.1.6. When appropriate, manufacturer reference of the documentation package related to the installation on the vehicle of the OBD system of an approved engine

4.2.12.2.7.2. Written description and/or drawing of the MI: …

4.2.12.2.7.3. List and purpose of all components monitored by the OBD system: …

4.2.12.2.7.4. Written description (general working principles) for

4.2.12.2.7.4.1. Positive-ignition engines

4.2.12.2.7.4.1.1. Catalyst monitoring: …

4.2.12.2.7.4.1.2. Misfire detection: …

4.2.12.2.7.4.1.3. Oxygen sensor monitoring: …

4.2.12.2.7.4.1.4. Other components monitored by the OBD system: …

4.2.12.2.7.4.2. Compression-ignition engines: …

4.2.12.2.7.4.2.1. Catalyst monitoring: …

4.2.12.2.7.4.2.2. Particulate trap monitoring: …

4.2.12.2.7.4.2.3. Electronic fuelling system monitoring: …

4.2.12.2.7.4.2.4. deNO_x system monitoring: …

4.2.12.2.7.4.2.5. Other components monitored by the OBD system: …

4.2.12.2.7.5. Criteria for MI activation (fixed number of driving cycles or statistical method): …

4.2.12.2.7.6. List of all OBD output codes and formats used (with explanation of each): …

4.2.12.2.7.7. The following additional information shall be provided by the vehicle manufacturer for the purposes of enabling the manufacture of OBD-compatible replacement or service parts and diagnostic tools and test equipment.

4.2.12.2.7.7.1. A description of the type and number of the preconditioning cycles used for the original type approval of the vehicle.

4.2.12.2.7.7.2. A description of the type of the OBD demonstration cycle used for the original type-approval of the vehicle for the component monitored by the OBD system.

4.2.12.2.7.7.3. A comprehensive document describing all sensed components with the strategy for fault detection and MI activation (fixed number of driving cycles or statistical method), including a list of relevant secondary sensed parameters for each component monitored by the OBD system. A list of all OBD output codes and format used (with an explanation of each) associated with individual emission related power-train components and individual non-emission related components, where monitoring of the component is used to determine MI activation, including in particular a comprehensive explanation for the data given in service $05 Test ID $21 to FF and the data given in service $06.

In the case of types of vehicle that use a communication link in accordance with ISO 15765-4 'Road vehicles, diagnostics on controller area network (CAN) — Part 4: requirements for emissions-related systems', a comprehensive explanation for the data given in service $06 Test ID $00 to FF, for each OBD monitor ID supported, shall be provided.

4.2.12.2.7.7.4. The information required in point 4.2.12.2.7.7.3 may be provided by completing a table as described in points 4.2.12.2.7.7.4.1. and 4.2.12.2.7.7.4.2.

4.2.12.2.7.7.4.1. Low-duty vehicles

Component	Fault code	Monitoring strategy	Fault detection criteria	MI activation criteria	Secondary parameters	Preconditioning	Demonstration test
Catalyst	P0420	Oxygen sensor 1 and sensor 2 signals	Difference between sensor 1 and sensor 2 signals-	3rd cycle	Engine speed load, A/F mode, catalyst temperature	Two type I cycles	Type I

4.2.12.2.7.7.4.2. Heavy-duty vehicles

Component	Fault code	Monitoring strategy	Fault detection criteria	MI activation criteria	Secondary parameters	preconditioning	Demonstration test
SCR Catalyst	Pxxx	NO_x sensor 1 and sensor 2 signals	Difference between sensor 1 and sensor 2 signals-	3rd cycle	Engine speed load, catalyst temperature, reagent activity	Three OBD test cycles (3 short ESC cycles)	OBD test cycle (short ESC cycle)

4.2.12.2.7.7.5. (Euro VI only) OBD Communication protocol standard: ([7])

4.2.12.2.7.8. (Euro VI only) Manufacturer reference of the OBD-related information required by Article 5(4)(d) and Article 9(4) of Regulation (EU) No 582/2011 for the purpose of complying with the provisions on access to vehicle OBD and vehicle repair and maintenance information, or

4.2.12.2.7.8.1. As an alternative to a manufacturer reference provided in point 3.2.12.2.7.7 reference of the attachment to the information document set out in Appendix 4 of Annex I to Regulation (EU) No 582/2011 that contains the following table, once completed according to the given example:

Component — Fault code — Monitoring strategy — Fault detection criteria — MI activation criteria — Secondary parameters — Preconditioning — Demonstration test

Catalyst – P0420 — Oxygen sensor 1 and 2 signals — Difference between sensor 1 and sensor 2 signals — 3rd cycle — Engine speed, engine load, A/F mode, catalyst temperature — Two Type 1 cycles — Type 1

4.2.12.2.7.9. (EURO VI only) OBD components on-board the vehicle

4.2.12.2.7.9.1. Alternative approval as provided for in point 2.4.1 of Annex X to Regulation (EU) No 582/2011: yes/no ([1])

4.2.12.2.7.9.2. List of OBD components on-board the vehicle

4.2.12.2.7.9.3. Written description and/or drawing of the MI ([9])

4.2.12.2.7.9.4. Written description and/or drawing of the OBD off-board communication interface ([9])

4.2.12.2.8. Other system (description and operation): …

4.2.12.2.8.1. (Euro VI only) Systems to ensure the correct operation of NO_x control measures

4.2.12.2.8.2. Driver inducement system

4.2.12.2.8.2.1 (Euro VI only) Engine with permanent deactivation of the driver inducement, for use by the rescue services or in vehicles specified in point (b) of Article 2(3): yes/no ([1])

4.2.12.2.8.2.2. Activation of the creep mode

"disable after restart"/"disable after fuelling"/"disable after parking" ([1])([7])

4.2.12.2.8.3. (Euro VI only) Number of OBD engine families within the engine family considered when ensuring the correct operation of NO_x control measures

4.2.12.2.8.3.1. (Euro VI only) List of the OBD engine families within the engine family considered when ensuring the correct operation of NOx control measures (where applicable)

4.2.12.2.8.3.2. (Euro VI only) Number of the OBD engine family the parent engine/the engine member belongs to

4.2.12.2.8.4. (Euro VI only) Lowest concentration of the active ingredient present in the reagent that does not activate the warning system (CD_{min}): (% vol.)

4.2.12.2.8.5. (Euro VI only) When appropriate, manufacturer reference of the Documentation for installing in a vehicle the systems to ensure the correct operation of NO_x control measures

4.2.12.2.8.6. (EURO VI only) Components on-board the vehicle of the systems ensuring the correct operation of NO_x control measures

4.2.12.2.8.6.1. List of components on-board the vehicle of the systems ensuring the correct operation of NO_x control measures

4.2.12.2.8.6.2. When appropriate, manufacturer reference of the documentation package related to the installation on the vehicle of the system ensuring the correct operation of NO_x control measures of an approved engine

4.2.12.2.8.6.3. Written description and/or drawing of the warning signal ([9])

4.2.12.2.8.6.4. Alternative approval provided for in point 2.1 of Annex XIII to Regulation (EU) No 582/2011: yes/no ([1])

4.2.12.2.8.6.5. Heated/non-heated reagent tank and dosing system (see paragraph 2.4 of Annex 11 to UNECE Regulation No 49)

4.2.12.2.9. Torque limiter: yes/no ([1])

4.2.12.2.9.1. Description of the torque limiter activation (heavy-duty vehicles only): …

4.2.12.2.9.2. Description of the full load curve limitation (heavy-duty vehicles only): …

4.2.13. *Smoke opacity*

4.2.13.1. Location of the absorption coefficient symbol (compression ignition engines only): …

4.2.13.2. Power at six points of measurement (see UNECE Regulation No 24)

4.2.13.3. Engine power measured on test bench/on the vehicle ([1])

4.2.13.3.1. Declared speeds and powers

Measurement points	Engine speed (min^{-1})	Power (kW)
1……		
2……		
3……		

4……		
5……		
6……		

4.2.14. *Details of any devices designed to influence fuel economy* (if not covered by other items): …

4.2.15. *LPG fuelling system: yes/no* ([1])

4.2.15.1. Type-approval number according to UNECE Regulation No 34: …

4.2.15.2. Electronic engine management control unit for LPG fuelling

4.2.15.2.1. Make(s): …

4.2.15.2.2. Type(s): …

4.2.15.2.3. Emission-related adjustment possibilities: …

4.2.15.3. Further documentation

4.2.15.3.1. Description of the safeguarding of the catalyst at switch-over from petrol to LPG or back: …

4.2.15.3.2. System lay-out (electrical connections, vacuum connections compensation hoses, etc.): …

4.2.15.3.3. Drawing of the symbol: …

4.2.16. *NG fuelling system: yes/no* ([1])

4.2.16.1. Type-approval number according to UNECE Regulation No 34: …

4.2.16.2. Electronic engine management control unit for NG fuelling

4.2.16.2.1. Make(s): …

4.2.16.2.2. Type(s): …

4.2.16.2.3. Emission-related adjustment possibilities: …

4.2.16.3. Further documentation

4.2.16.3.1. Description of the safeguarding of the catalyst at switch-over from petrol to NG or back: …

4.2.16.3.2. System lay-out (electrical connections, vacuum connections compensation hoses, etc.): …

4.2.16.3.3. Drawing of the symbol: …

4.2.17. *Specific information related to gas fuelled engines for heavy-duty vehicles (in the case of systems laid out in a different manner, supply equivalent information)*

4.2.17.1. Fuel: LPG/NG-H/NG-L/NG-HL ([1])

4.2.17.2. Pressure regulator(s) or vaporiser/pressure regulator(s) ([1])

4.2.17.2.1. Make(s): …

4.2.17.2.2. Type(s): …

4.2.17.2.3. Number of pressure reduction stages: …

4.2.17.2.4. Pressure in final stage

minimum: ….. kPa — maximum: …. kPa

4.2.17.2.5. Number of main adjustment points: …

4.2.17.2.6. Number of idle adjustment points: …

4.2.17.2.7. Type-approval number: …

4.2.17.3. Fuelling system: mixing unit/gas injection/liquid injection/direct injection ([1])

4.2.17.3.1. Mixture strength regulation: …

4.2.17.3.2. System description and/or diagram and drawings: …

4.2.17.3.3. Type-approval number: …

4.2.17.4. Mixing unit

4.2.17.4.1. Number: …

4.2.17.4.2. Make(s): …

4.2.17.4.3. Type(s): …

4.2.17.4.4. Location: …

4.2.17.4.5. Adjustment possibilities: …

4.2.17.4.6. Type-approval number: …

4.2.17.5. Inlet manifold injection

4.2.17.5.1. Injection: single point/multipoint ([1])

4.2.17.5.2. Injection: continuous/simultaneously timed/sequentially timed ([1])

4.2.17.5.3. Injection equipment

4.2.17.5.3.1. Make(s): …

4.2.17.5.3.2. Type(s): …

4.2.17.5.3.3. Adjustment possibilities: …

4.2.17.5.3.4. Type-approval number: …

4.2.17.5.4. Supply pump (where applicable)

4.2.17.5.4.1. Make(s): …

4.2.17.5.4.2. Type(s): …

4.2.17.5.4.3. Type-approval number: …

4.2.17.5.5. Injector(s) …

4.2.17.5.5.1. Make(s): …

4.2.17.5.5.2. Type(s): …

4.2.17.5.5.3. Type-approval number: …

4.2.17.6. Direct injection

4.2.17.6.1. Injection pump/pressure regulator ([1])

4.2.17.6.1.1. Make(s): …

4.2.17.6.1.2. Type(s): …

4.2.17.6.1.3. Injection timing: …

4.2.17.6.1.4. Type-approval number: …

4.2.17.6.2. Injector(s) …

4.2.17.6.2.1. Make(s): …

4.2.17.6.2.2. Type(s): …

4.2.17.6.2.3. Opening pressure or characteristic diagram ([2]): …

4.2.17.6.2.4. Type-approval number: …

4.2.17.7. Electronic control unit (ECU)

4.2.17.7.1. Make(s): …

4.2.17.7.2. Type(s): …

4.2.17.7.3. Adjustment possibilities: …

4.2.17.7.4. Software calibration number(s): …

4.2.17.8. NG fuel-specific equipment

4.2.17.8.1. Variant 1 (only in the case of approvals of engines for several specific fuel compositions)

4.2.17.8.1.0.1. (Euro VI only) Self adaptive feature? Yes/No ([1])

4.2.17.8.1.0.2. (Euro VI only) Calibration for a specific gas composition NG-H/NG-L/NG-HL ([1])

Transformation for a specific gas composition NG-H_t/NG-L_t/NG-HL_t ([1])

4.2.17.8.1.1. Fuel composition:

methane (CH_4):	basis: ……. % mole	min. …. % mole	max. ….. % mole
ethane (C_2H_6):	basis: ……. % mole	min. …. % mole	max. ….. % mole
propane (C_3H_8):	basis: ……. % mole	min. …. % mole	max. ….. % mole
butane (C_4H_{10}):	basis: ……. % mole	min. …. % mole	max. ….. % mole
C_5/C_5+:	basis: ……. % mole	min. …. % mole	max. ….. % mole
oxygen (O_2):	basis: ……. % mole	min. …. % mole	max. ….. % mole
inert (N_2, He, etc.):	basis: ……. % mole	min. …. % mole	max. ….. % mole

4.2.17.8.1.2. Injector(s)

4.2.17.8.1.2.1. Make(s): …

4.2.17.8.1.2.2. Type(s): …

4.2.17.8.1.3. Others (where applicable): …

4.2.17.8.2. Variant 2 (only in the case of approvals for several specific fuel compositions)

4.2.17.9. When appropriate, manufacturer reference of the documentation for installing the dual-fuel engine in a vehicle ([x1])

4.2.18. Hydrogen fuelling system: yes/no ([1])

4.2.18.1. EU type-approval number in accordance with Regulation (EC) No 79/2009 of the European Parliament and of the Council[2]: …

4.2.18.2. Electronic engine management control unit for hydrogen fuelling

4.2.18.2.1. Make(s): …

4.2.18.2.2. Type(s): …

4.2.18.2.3. Emission-related adjustment possibilities: …

4.2.18.3. Further documentation

4.2.18.3.1. Description of the safeguarding of the catalyst at switch-over from petrol to hydrogen or back: …

4.2.18.3.2. System lay-out (electrical connections, vacuum connections compensation hoses, etc.): …

4.2.18.3.3. Drawing of the symbol: …

4.2.19. H2NG fuelling system: yes/no ([1])

4.2.19.1. Percentage of hydrogen in the fuel (the maximum specified by the manufacturer): …

4.2.19.2. EU type-approval number in accordance with UNECE Regulation No 110 …

4.2.19.3. Electronic engine management control unit for H2NG fuelling

4.2.19.3.1. Make(s): …

4.2.19.3.2. Type(s): …

4.2.19.3.3. Emission-related adjustment possibilities: …

4.2.19.4. Further documentation

4.2.19.4.1. Description of the safeguarding of the catalyst at switch-over from petrol to H2NG or back: …

4.2.19.4.2. System lay-out (electrical connections, vacuum connections compensation hoses, etc.): …

4.2.19.4.3. Drawing of the symbol: …

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[2] Regulation (EC) No 79/2009 of the European Parliament and of the Council of 14 January 2009 on type-approval of hydrogen-powered motor vehicles, and amending Directive 2007/46/EC (OJ L 35, 4.2.2009, p. 32).

4.3. **Electric motor**

4.3.1. *Type* (winding, excitation): …

4.3.1.1. Maximum hourly output: …… kW

4.3.1.1.1. Maximum net power ([n]) … kW

(manufacturer's declared value)

4.3.1.1.2. Maximum 30 minutes power ([n]) … kW

(manufacturer's declared value)

4.3.1.2. Operating voltage: …… V

4.3.2. *Battery*

4.3.2.1. Number of cells: …

4.3.2.2. Mass: …… kg

4.3.2.3. Capacity: …… Ah (Amp-hours)

4.3.2.4. Position: …

4.4. **Engine or motor combination**

3.4.1. *Hybrid electric vehicle: yes/no* ([1])

4.4.2. *Category of hybrid electric vehicle:* off-vehicle charging/not off-vehicle charging: ([1])

4.4.3. *Operating mode switch: with/without* ([1])

4.4.3.1. Selectable modes

4.4.3.1.1. Pure electric: yes/no ([1])

4.4.3.1.2. Pure fuel consuming: yes/no ([1])

4.4.3.1.3. Hybrid modes: yes/no ([1])

(if yes, short description): …

4.4.4. *Description of the energy storage device: (battery, capacitor, flywheel/generator)*

4.4.4.1. Make(s): …

4.4.4.2. Type(s): …

4.4.4.3. Identification number: …

4.4.4.4. Kind of electrochemical couple: …

4.4.4.5. Energy: … (for battery: voltage and capacity Ah in 2 h, for capacitor: J,…)

4.4.4.6. Charger: on board/external/without ([1])

4.4.5. *Electric motor (describe each type of electric motor separately)*

4.4.5.1. Make: …

4.4.5.2. Type: …

4.4.5.3. Primary use: traction motor/generator ([1])

4.4.5.3.1. When used as traction motor: single-/multimotors (number) ([1]): …

4.4.5.4. Maximum power: …… kW

4.4.5.5. Working principle

4.4.5.5.5.1 Direct current/alternating current/number of phases: …

4.4.5.5.2. Separate excitation/series/compound ([1])

4.4.5.5.3. Synchronous/asynchronous ([1])

4.4.6. *Control unit*

4.4.6.1. Make(s): …

4.4.6.2. Type(s): …

4.4.6.3. Identification number: …

4.4.7. *Power controller*

4.4.7.1. Make: …

4.4.7.2. Type: …

4.4.7.3. Identification number: …

4.4.8. *Vehicle electric range ... km (in accordance with Annex 9 to UNECE Regulation No 101)*

4.4.9. *Manufacturer's recommendation for preconditioning*: …

4.5. **CO_2 emissions/fuel consumption** ([o]) **(manufacturer's declared value)**

4.5.1. *CO_2 mass emissions*

4.5.1.1. CO_2 mass emissions (urban conditions): …… g/km

4.5.1.2. CO_2 mass emissions (extra-urban conditions): …… g/km

4.5.1.3. CO_2 mass emissions (combined): …… g/km

4.5.2. *Fuel consumption (provide details for each reference fuel tested)*

4.5.2.1. Fuel consumption (urban conditions) … l/100 km or m^3/100 km or kg/100 km ([1])

4.5.2.2. Fuel consumption (extra-urban conditions) … l/100 km or m^3/100 km or kg/100 km ([1])

4.5.2.3. Fuel consumption (combined) … l/100 km or m^3/100 km or kg/100 km ([1])

4.5.3. *Electric energy consumption for electric vehicles*

4.5.3.1. Electric energy consumption for pure electric vehicles … Wh/km

4.5.3.2. Electric energy consumption for externally chargeable hybrid electric vehicles

4.5.3.2.1. Electric energy consumption (Condition A, combined) …Wh/km

4.5.3.2.2. Electric energy consumption (Condition B, combined) … Wh/km

4.5.3.2.3. Electric energy consumption (weighted combined) … Wh/km

4.5.4. *CO_2 emissions for heavy duty engines (Euro VI only)*

4.5.4.1. CO_2 mass emissions WHSC test ([x3]): … g/kWh

4.5.4.2. CO_2 mass emissions WHSC test in diesel mode ([x2]): … g/kWh

4.5.4.3. CO2 mass emissions WHSC test in dual-fuel mode ([x1]): … g/kWh

4.5.4.4. CO2 mass emissions WHTC test ([x3])([8]): … g/kWh

4.5.4.5. CO2 mass emissions WHTC test in diesel mode ([x2])([8]): … g/kWh

4.5.4.6. CO2 mass emissions WHTC test in dual-fuel mode ([x1])([8]): … g/kWh

4.5.5. *Fuel consumption for heavy duty engines (Euro VI only)*

4.5.5.1. Fuel consumption WHSC test ([x3]): … g/kWh

4.5.5.2. Fuel consumption WHSC test in diesel mode ([x2]): … g/kWh

4.5.5.3. Fuel consumption WHSC test in in dual-fuel mode ([x1]): … g/kWh

4.5.5.4. Fuel consumption WHTC test ([8])([x3]): … g/kWh

4.5.5.5. Fuel consumption WHTC test in diesel mode ([8])([x2]): … g/kWh

4.5.5.6. Fuel consumption WHTC test in dual-fuel mode ([8])([x1]): … g/kWh

4.5.6. Vehicle fitted with an eco-innovation within the meaning of Article 12 of Regulation (EC) No 443/2009 of the European Parliament and of the Council[3] for M_1 vehicles or Article 12 of Regulation (EU) No 510/2011 of the European Parliament and of the Council[4] for N_1 vehicles: yes/no ([1])

4.5.6.1. Type/Variant/Version of the baseline vehicle as referred to in Article 5 of Commission Implementing Regulation (EU) No 725/2011[5] for M_1 vehicles or Article 5 of Commission Implementing Regulation (EU) No 427/2014[6] for N_1 vehicles (where applicable)[: …

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[3] Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO 2 emissions from light-duty vehicles (OJ L 140, 5.6.2009, p. 1)

[4] Regulation (EU) No 510/2011 of the European Parliament and of the Council of 11 May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO 2 emissions from light-duty vehicles (OJ L 145, 31.5.2011, p. 1)

[5] Commission Implementing Regulation (EU) No 725/2011 of 25 July 2011 establishing a procedure for the approval and certification of innovative technologies for reducing CO 2 emissions from passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council (OJ L 194, 26.7.2011, p. 19)

[6] Commission Implementing Regulation (EU) No 427/2014 of 25 April 2014 establishing a procedure for the approval and certification of innovative technologies for reducing CO 2 emissions from light commercial vehicles pursuant to Regulation (EU) No 510/2011 of the European Parliament and of the Council (OJ L 125, 26.4.2014, p. 57)

4.5.6.2. Existence of interactions between different eco-innovations: yes/no ([1])

4.5.6.3. Emissions data related to the use of eco-innovations (repeat the table for each reference fuel tested) ([w1])

Decision approving the eco-innovation ([w2])	Code of the eco-innovation ([w3])	1. CO_2 emissions of the baseline vehicle (g/km)	2. CO_2 emissions of the eco-innovation vehicle (g/km)	3. CO_2 emissions of the baseline vehicle under type 1 test-cycle ([w4])	4. CO_2 emissions of the eco-innovation vehicle under type 1 test-cycle (= 3.5.1.3)	5. Usage factor (UF), i.e. temporal share of technology usage in normal operation conditions	CO_2 emissions savings ((1 – 2) – (3 – 4)) * 5
xxxx/201x							
Total CO_2 emissions saving (g/km) ([w5])							

([w]) Eco-innovations.

([w2]) Number of the Commission Decision approving the eco-innovation.

([w3]) Assigned in the Commission Decision approving the eco-innovation.

([w4]) Under agreement of the approval authority, if a modelling methodology is applied instead of the type 1 test cycle, this value shall be the one provided by the modelling methodology.

([w5]) Sum of the CO_2 emissions savings of each individual eco-innovation.

4.6. **Temperatures permitted by the manufacturer**

4.6.1. *Cooling system*

4.6.1.1. Liquid cooling

Maximum temperature at outlet: …… K

4.6.1.2. Air cooling

4.6.1.2.1. Reference point: …

4.6.1.2.2. Maximum temperature at reference point: …… K

4.6.2. *Maximum outlet temperature of the inlet intercooler: ……* K

4.6.3. *Maximum exhaust temperature at the point in the exhaust pipe(s) adjacent to the outer flange(s) of the exhaust manifold or turbocharger:* …… K

4.6.4. *Fuel temperature*

Minimum: …… K — maximum: …… K

For diesel engines at injection pump inlet, for gas fuelled engines at pressure regulator final stage

4.6.5. *Lubricant temperature*

Minimum: …. K — maximum: …… K

4.6.6. *Fuel pressure*

Minimum: …… kPa — maximum: …… kPa

At pressure regulator final stage, NG fuelled gas engines only.

4.7. **Power absorbed at engine speeds specific for emissions test**

Equipment	Idle	Low speed	High speed	Speed A (Preferred speed ([2])	Speed B (n95h)
P_a Auxiliaries needed for operating the engine (to be subtracted from measured engine power) according to Annex 4, Appendix 6 of UNECE Regulation No 49					
Auxiliaries needed for operating the engine (to be subtracted from measured engine power). P_b Auxiliaries/equipment not required according to Annex 4, Appendix 6 of No 49					

4.8. **Lubrication system**

4.8.1. *Description of the system*

4.8.1.1. Position of lubricant reservoir: …

4.8.1.2. Feed system (by pump/injection into intake/mixing with fuel, etc.) ([1])

4.8.2. *Lubricating pump*

4.8.2.1. Make(s): …

4.8.2.2. Type(s): …

4.8.3. *Mixture with fuel*

4.8.3.1. Percentage: …

4.8.4. *Oil cooler: yes/no* ([1])

4.8.4.1. Drawing(s): …… or

4.8.4.1.1. Make(s): …

4.8.4.1.2. Type(s): …

5. TRANSMISSION ([p])

5.1. **Drawing of the transmission:** …

5.2. **Type (mechanical, hydraulic, electric, etc.):** …

5.2.1. A brief description of the electrical/electronic components (if any): …

5.3. **Moment of inertia of engine flywheel:** …

5.3.1. Additional moment of inertia with no gear engaged: …

5.4. **Clutch**

5.4.1. Type: …

5.4.2. Maximum torque conversion: …

5.5. **Gearbox**

5.5.1. Type (manual/automatic/CVT (continuously variable transmission)) ([1])

5.5.2. Location relative to the engine: …

5.5.3. Method of control: …

5.6. **Gear ratios**

Gear	Internal gearbox ratios (ratios of engine to gearbox output shaft revolutions)	Final drive ratio(s) (ratio of gearbox output shaft to driven wheel revolutions)	Total gear ratios
Maximum for CVT (*)			
1			
2			
3			
…			
Minimum for CVT (*)			
Reverse			
(*) Continuously variable transmission.			

5.7. **Maximum vehicle design speed (in km/h)** ([q]): …

5.8. **Speedometer**

5.8.1. Method of operation and description of drive mechanism: …

5.8.2. Instrument constant: …

5.8.3. Tolerance of the measuring mechanism (pursuant to paragraph 2.5.1 of UNECE Regulation No 39): …

5.8.4. Overall transmission ratio (pursuant to paragraph 2.2.2 of UNECE Regulation No 39) or equivalent data: …

5.8.5. Diagram of the speedometer scale or other forms of display: …

5.9. **Tachograph: yes/no** ([1])

5.9.1 Approval mark: …

5.10. **Differential lock: yes/no/optional** ([1])

5.11. **Gear shift indicator (GSI)**

5.11.1. Acoustic indication available yes/no ([1]). If yes, description of sound and sound level at the driver's ear in dB(A). (Acoustic indication always switchable on/off)

5.11.2. Information according to point 4.6 of Annex I to Commission Regulation (EU) No 65/2012[7] (manufacturer's declared value)

5.11.3. Photographs and/or drawings of the gear shift indicator instrument and brief description of the system components and operation:

6. AXLES

6.1. Description of each axle: …

6.2. Make: …

6.3. Type: …

6.4. Position of retractable axle(s): …

6.5. Position of loadable axle(s): …

7. SUSPENSION

7.1. Drawing of the suspension arrangements: …

7.2. Type and design of the suspension of each axle or group of axles or wheel: …

7.2.1. Level adjustment: yes/no/optional ([1])

7.2.2. A brief description of the electrical/electronic components (if any): …

7.2.3. Air-suspension for driving axle(s): yes/no ([1])

7.2.3.1. Suspension of driving axle(s) equivalent to air-suspension: yes/no ([1])

7.2.3.2. Frequency and damping of the oscillation of the sprung mass: …

7.2.4. Air-suspension for non-driving axle(s): yes/no ([1])

7.2.4.1. Suspension of non-driving axle(s) equivalent to air-suspension: yes/no ([1])

7.2.4.2. Frequency and damping of the oscillation of the sprung mass: …

7.3. **Characteristics of the springing parts of the suspension** (design, characteristics of the materials and dimensions): …

7.4. **Stabilisers:** yes/no/optional ([1])

7.5. **Shock absorbers:** yes/no/optional ([1])

7.6. **Tyres and wheels**

7.6.1. *Tyre/wheel combination(s)*

[7] Commission Regulation (EU) No 65/2012 of 24 January 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council as regards gear shift indicators and amending Directive 2007/46/EC of the European Parliament and of the Council (OJ L 28, 31.1.2012, p. 24)

(a) for tyres indicate size designation, load-capacity index, speed category symbol, rolling resistance in accordance with ISO 28580 (where applicable) ([r]);

(b) for wheels indicate rim size(s) and off-set(s)

7.6.1.1. Axles

7.6.1.1.1. Axle 1: …

7.6.1.1.2. Axle 2: …

etc.

7.6.1.2. Spare wheel, if any: …

7.6.2. *Upper and lower limits of rolling radii*

7.6.2.1. Axle 1: …

7.6.2.2. Axle 2: …

7.6.2.3. Axle 3: …

7.6.2.4. Axle 4: …

etc.

7.6.3. *Tyre pressure(s) as recommended by the vehicle manufacturer:* …… kPa

7.6.4. *Chain/tyre/wheel combination on the front and/or rear axle that is suitable for the type of vehicle, as recommended by the manufacturer:* …

7.6.5. *Brief description of temporary use spare unit (if any):* …

8. STEERING

8.1. **Schematic diagram of steered axle(s) showing steering geometry:** …

8.2. **Transmission and control**

8.2.1. Type of steering transmission (specify for front and rear, where applicable): …

8.2.2. Linkage to wheels (including other than mechanical means; specify for front and rear, where applicable): …

8.2.2.1. A brief description of the electrical/electronic components (if any): …

8.2.3. Method of assistance (if any): …

8.2.3.1. Method and diagram of operation, make(s) and type(s): …

8.2.4. Diagram of the steering equipment as a whole, showing the position on the vehicle of the various devices influencing its steering behaviour: …

8.2.5. Schematic diagram(s) of the steering control(s): …

8.2.6. Range and method of adjustment (if any), of the steering control: …

8.3. **Maximum steering angle of the wheels**

8.3.1. To the right: … degrees; number of turns of the steering wheel (or equivalent data): …

8.3.2. To the left: … degrees; number of turns of the steering wheel (or equivalent data): …

9. BRAKES

(The following particulars, including means of identification, where applicable, are to be given)

9.1. Type and characteristics of the brakes as defined in paragraph 2.6 of UNECE Regulation 13-H including details and drawings of the drums, discs, hoses make and type of shoe/pad assemblies and/or linings, effective braking areas, radius of drums, shoes or discs, mass of drums, adjustment devices, relevant parts of the axle(s) and suspension: …

9.2. Operating diagram, description and/or drawing of the braking equipment described in paragraph 2.3 of UNECE Regulation 13-H including details and drawings of the transmission and controls:

9.2.1. Service braking system: …

9.2.2. Secondary braking system: …

9.2.3. Parking braking system: …

9.2.4. Any additional braking system: …

9.2.5. Break-away braking system: …

9.3. Control and transmission of trailer braking systems in vehicles designed to tow a trailer: …

9.4. Vehicle is equipped to tow a trailer with electric/pneumatic/hydraulic ([1]) service brakes: yes/no ([1])

9.5. Anti-lock braking system: yes/no/optional ([1])

9.5.1. For vehicles with anti-lock systems, description of system operation (including any electronic parts), electric block diagram, hydraulic or pneumatic circuit plan: …

9.6. Calculation and curves according to Annex 5 to UNECE Regulation No 13-H: …

9.7. Description and/or drawing of the energy supply, also to be specified for power-assisted braking systems: …

9.7.1. In the case of compressed-air braking systems, working pressure p2 in the pressure reservoir(s): …

9.7.2. In the case of vacuum braking systems, the initial energy level in the reservoir(s): …

9.8. Calculation of the braking system: Determination of the ratio between the total braking forces at the circumference of the wheels and the force applied to the braking control: …

9.9. Brief description of the braking equipment according to paragraph 12 of Annex 2 to UNECE Regulation No 13: …

9.10. If claiming exemptions from the Type I and/or Type II or Type III tests, state the number of the report in accordance with Appendix 2 of Annex 11 to UNECE Regulation No 13: …

9.11. Particulars of the type(s) of endurance braking system(s): …

10. BODYWORK

10.1. Type of bodywork using the codes defined in Part C of Annex II: …

10.2. Materials used and methods of construction: …

10.3. **Occupant doors, latches and hinges**

10.3.1. Door configuration and number of doors: …

10.3.1.1. Dimensions, direction and maximum angle of opening: …

10.3.2. Drawing of latches and hinges and of their position in the doors: …

10.3.3. Technical description of latches and hinges: …

10.3.4. Details, including dimensions, of entrances, steps and necessary handles where applicable: …

10.4. **Field of vision**

10.4.1. Particulars of the primary reference marks in sufficient detail to enable them to be readily identified and the position of each in relation to the others and to the R-point to be verified: …

10.4.2. Drawing(s) or photograph(s) showing the location of component parts within the 180^{o} forward field of vision: …

10.5. **Windscreen and other windows**

10.5.1. *Windscreen*

10.5.1.1. Materials used: …

10.5.1.2. Method of mounting: …

10.5.1.3. Angle of inclination: …

10.5.1.4. Type-approval number(s): …

10.5.1.5. Windscreen accessories and the position in which they are fitted together with a brief description of any electrical/electronic components involved: …

10.5.2. *Other windows*

10.5.2.1. Materials used: …

10.5.2.2. Type-approval number(s): …

10.5.2.3. A brief description of the electrical/electronic components (if any) of the window lifting mechanism: …

10.5.3. *Opening roof glazing*

10.5.3.1. Materials used: …

10.5.3.2. Type-approval number(s): …

10.5.4. *Other glass panes*

10.5.4.1. Materials used: …

10.5.4.2. Type-approval number(s): …

10.6. **Windscreen wiper(s)**

10.6.1. Detailed technical description (including photographs or drawings): …

10.7. **Windscreen washer**

10.7.1. Detailed technical description (including photographs or drawings) or, if approved as separate technical unit, type-approval number: …

10.8. **Defrosting and demisting**

10.8.1. Detailed technical description (including photographs or drawings): …

10.8.2. Maximum electrical consumption: … kW

10.9. **Devices for indirect vision**

10.9.1. Rear-view mirrors, stating for each mirror:

10.9.1.1. Make: …

10.9.1.2. Type-approval mark: …

10.9.1.3. Variant: …

10.9.1.4. Drawing(s) for the identification of the mirror showing the position of the mirror relative to the vehicle structure: …

10.9.1.5. Details of the method of attachment including that part of the vehicle structure to which it is attached: …

10.9.1.6. Optional equipment which may affect the rearward field of vision: …

10.9.1.7. A brief description of the electronic components (if any) of the adjustment system: …

10.9.2. Devices for indirect vision other than mirrors: …

10.9.2.1. Type and characteristics (such as a complete description of the device): …

10.9.2.1.1. In the case of a camera-monitor device, the detection distance (mm), contrast, luminance range, glare correction, display performance (black and white/colour), image repetition frequency, luminance reach of the monitor: …

10.9.2.1.2. Sufficiently detailed drawings to identify the complete device, including installation instructions; the position for the EU type-approval mark has to be indicated on the drawings.

10.10. **Interior arrangement**

10.10.1. *Interior protection for occupants*

10.10.1.1. Layout drawing or photographs showing the position of the attached sections or views: …

10.10.1.2. Photograph or drawing showing the reference zone including the exempted area referred to in paragraph 2.3.1 of UNECE Regulation No 21 : …

10.10.1.3. Photographs, drawings and/or an exploded view of the interior fittings, showing the parts in the passenger compartment and the materials used (with the exception of interior rear view mirrors), arrangement of controls, roof and opening roof, backrest, seats and the rear part of seats: …

10.10.2. *Arrangement and identification of controls, tell-tales and indicators*

10.10.2.1. Photographs and/or drawings of the arrangement of symbols and controls, tell-tales and indicators: …

10.10.2.2. Photographs and/or drawings of the identification of controls, tell-tales and indicators and of the vehicle parts referred to in Table 1 of UNECE Regulation No 121 where relevant: …

10.10.2.3. Summary table

The vehicle is equipped with the following controls, indicators and tell-tales pursuant to Table 1of UNECE Regulation No 121

Controls, tell-tales and indicators for which, when fitted, identification is mandatory, and symbols to be used for that purpose

Symbol No	Device	Control/ indicator available (*)	Identified by symbol (*)	Where (**)	Tell-tale available (*)	Identified by symbol (*)	Where (**)
1	Master light						
2	Dipped-beam headlamps						
3	Main-beam headlamps						
4	Position (side) lamps						
5	Front fog lamps						
6	Rear fog lamp						
7	Headlamp levelling device						

8	Parking lamps						
9	Direction indicators						
10	Hazard warning						
11	Windscreen wiper						
12	Windscreen washer						
13	Windscreen wiper and washer						
14	Headlamp cleaning device						
15	Windscreen demisting and defrosting						
16	Rear window demisting and defrosting						
17	Ventilating fan						
18	Diesel pre-heat						
19	Choke						
20	Brake failure						
21	Fuel level						
22	Battery charging condition						
23	Engine coolant temperature						
(*)	x = yes — = no or not separately available o = optional.						
(**)	d = directly on control, indicator or tell-tale c = in close vicinity.						

Controls, tell-tales and indicators for which, when fitted, identification is optional, and symbols which shall be used if they are to be identified

Symbol No	Device	Control/ indicator available (*)	Identified by symbol (*)	Where (**)	Tell-tale available (*)	Identified by symbol (*)	Where (**)
1	Parking brake						
2	Rear window wiper						
3	Rear window washer						
4	Rear window wiper and washer						
5	Intermittent windscreen wiper						
6	Audible warning device (horn)						
7	Front hood (bonnet)						
8	Rear hood (boot)						
9	Seat-belt						
10	Engine oil pressure						
11	Unleaded petrol						
…							
…							
…							

(*) x = yes
— = no or not separately available
o = optional.

(**) d = directly on control, indicator or tell-tale
c = in close vicinity.

10.10.3. *Seats*

10.10.3.1. Number of seating positions ([s]): …

10.10.3.1.1. Location and arrangement: …

10.10.3.2. Seat(s) designated for use only when the vehicle is stationary: …

10.10.3.3. Mass: …

10.10.3.4. Characteristics: for seats not type-approved as components, description and drawings of

10.10.3.4.1. The seats and their anchorages: …

10.10.3.4.2. The adjustment system: …

10.10.3.4.3. The displacement and locking systems: …

10.10.3.4.4. The seat-belt anchorages (if incorporated in the seat structure): …

10.10.3.4.5. The parts of the vehicle used as anchorages: …

10.10.3.5. Coordinates or drawing of the R-point ([t])

10.10.3.5.1. Driver's seat: …

10.10.3.5.2. All other seating positions: …

10.10.3.6. Design torso angle

10.10.3.6.1. Driver's seat: …

10.10.3.6.2. All other seating positions: …

10.10.3.7. Range of seat adjustment

10.10.3.7.1. Driver's seat: …

10.10.3.7.2. All other seating positions: …

10.10.4. *Head restraints*

10.10.4.1. Type(s) of head restraints: integrated/detachable/separate ([1])

10.10.4.2. Type-approval number(s), where available: …

10.10.4.3. For head restraints not yet approved

10.10.4.3.1. A detailed description of the head restraint, specifying in particular the nature of the padding material or materials and, where applicable, the position and specifications of the braces and anchorage pieces for the type of seat for which approval is sought: …

10.10.4.3.2. In the case of a 'separate' head restraint

10.10.4.3.2.1. A detailed description of the structural zone to which the head restraint is intended to be fixed: …

10.10.4.3.2.2. Dimensional drawings of the characteristic parts of the structure and the head restraint: …

10.10.5. *Heating systems for the passenger compartment*

10.10.5.1. A brief description of the type of vehicle with regard to the heating system if the heating system uses the heat of the engine cooling fluid: …

10.10.5.2. A detailed description of the type of vehicle with regard to the heating if the cooling air or the exhaust gases of the engine are used as heat source, including:

10.10.5.2.1. Layout drawing of the heating system showing its position in the vehicle: …

10.10.5.2.2. Layout drawing of the heat exchanger for heating systems using the exhaust gases for heating, or of the parts where the heat exchange takes place (for heating systems using the engine cooling air for heating): …

10.10.5.2.3. Sectional drawing of the heat exchanger or the parts respectively where the heat exchange takes place indicating the thickness of the wall, used materials and characteristics of the surface: …

10.10.5.2.4. Specifications shall be given for further important components of the heating system such as, for example, the heater fan, with regard to their method of construction and technical data: …

10.10.5.3. A brief description of the type of vehicle with regard to the combustion heating system and the automatic control: …

10.10.5.3.1. Layout drawing of the combustion heater, the air inlet system, the exhaust system, the fuel tank, the fuel supply system (including the valves) and the electrical connections showing their positions in the vehicle.

10.10.5.4. Maximum electrical consumption: …… kW

10.10.6. *Components influencing the behaviour of the steering mechanism in the event of an impact*

10.10.6.1. A detailed description, including photograph(s) and/or drawing(s), of the type of vehicle with respect to the structure, the dimensions, the lines and the constituent materials of that part of the vehicle forward of the steering control, including those components designed to contribute to the absorption of energy in the event of an impact against the steering control: …

10.10.6.2. Photograph(s) and/or drawing(s) of vehicle components other than those described in point 10.10.6.1 as identified by the manufacturer in agreement with the technical service, as contributing to the behaviour of the steering mechanism in case of impact: …

10.10.7. *Burning behaviour of materials used in the interior construction of certain categories of motor vehicles*

10.10.7.1. Material(s) used for the interior lining of the roof

10.10.7.1.1. Component type-approval number(s), if available: …

10.10.7.1.2. For materials not approved

10.10.7.1.2.1. Base material(s)/designation: ……/……

10.10.7.1.2.2. Composite/single ([1]) material, number of layers ([1]): …

10.10.7.1.2.3. Type of coating ([1]): …

10.10.7.1.2.4. Maximum/minimum thickness: ……/…… mm

10.10.7.2. Material(s) used for the rear and side walls

10.10.7.2.1. Component type-approval number(s), if available: …

10.10.7.2.2. For materials not approved

10.10.7.2.2.1. Base material(s)/designation: ……/……

10.10.7.2.2.2. Composite/single ([1]) material, number of layers ([1]): …

10.10.7.2.2.3. Type of coating ([1]): …

10.10.7.2.2.4. Maximum/minimum thickness: ……/…… mm

10.10.7.3. Material(s) used for the floor

10.10.7.3.1. Component type-approval number(s), if available: …

10.10.7.3.2. For materials not approved

10.10.7.3.2.1. Base material(s)/designation: ……/……

10.10.7.3.2.2. Composite/single ([1]) material, number of layers ([1]): …

10.10.7.3.2.3. Type of coating ([1]): …

10.10.7.3.2.4. Maximum/minimum thickness: ……/…… mm

10.10.7.4. Material(s) used for the upholstery of the seats

10.10.7.4.1. Component type-approval number(s), if available: …

10.10.7.4.2. For materials not approved

10.10.7.4.2.1. Base material(s)/designation: ……/……

10.10.7.4.2.2. Composite/single ([1]) material, number of layers ([1]): …

10.10.7.4.2.3. Type of coating ([1]): …

10.10.7.4.2.4. Maximum/minimum thickness: ……/…… mm

10.10.7.5. Material(s) used for the heating and ventilation pipes

10.10.7.5.1. Component type-approval number(s), if available: …

10.10.7.5.2. For materials not approved

10.10.7.5.2.1. Base material(s)/designation: ……/…...

10.10.7.5.2.2. Composite/single ([1]) material, number of layers ([1]): …

10.10.7.5.2.3. Type of coating ([1]): …

10.10.7.5.2.4. Maximum/minimum thickness: ……/…….mm

10.10.7.6. Material(s) used for luggage racks

10.10.7.6.1. Component type-approval number(s), if available: …

10.10.7.6.2. For materials not approved

10.10.7.6.2.1. Base material(s)/designation: ……/……

10.10.7.6.2.2. Composite/single ([1]) material, number of layers ([1]): …

10.10.7.6.2.3. Type of coating ([1]): …

10.10.7.6.2.4. Maximum/minimum thickness: ……/…… mm

10.10.7.7. Material(s) used for other purposes

10.10.7.7.1. Intended purposes: …

10.10.7.7.2. Component type-approval number(s), if available: …

10.10.7.7.3. For materials not approved

10.10.7.7.3.1. Base material(s)/designation: ……/……

10.10.7.7.3.2. Composite/single ([1]) material, number of layers ([1]): …

10.10.7.7.3.3. Type of coating ([1]): …

10.10.7.7.3.4. Maximum/minimum thickness: …./…. mm

10.10.7.8. Components approved as complete devices (seats, separation walls, luggage racks, etc.)

10.10.7.8.1. Component type-approval number(s): …

10.10.7.8.2. For the complete device: seat, separation wall, luggage racks, etc. ([1])

10.10.8. *Gas used as refrigerant in the air-conditioning system*: …

10.10.8.1. The air-conditioning system is designed to contain fluorinated greenhouse gases with global warming potential higher than 150: yes/no ([1])

10.10.8.2. If yes, fill in the following points

10.10.8.2.1. Drawing and brief description of the air-conditioning system, including the reference or part number and material of the leak components;

10.10.8.2.2. Leakage of the air-conditioning system

10.10.8.2.4. Reference or part number and material of the components of the system and information about the test (e.g. test report number, approval number, etc.): …

10.10.8.3. Overall leakage in g/year of the entire system: …

10.11. **External projections**

10.11.1. General arrangement (drawing or photographs) indicating the position of the attached sections and views:

10.11.2. Drawings and/or photographs, for example, and where relevant, of the door and window pillars, air-intake grilles, radiator grille, windscreen wipers, rain gutter channels, handles, slide rails, flaps, door hinges and locks, hooks, eyes, decorative trim, badges, emblems and recesses and any other external projections and parts of the exterior surface which can be regarded as critical (e.g. lighting equipment). If the parts listed in the previous sentence are not critical, for documentation purposes they may be replaced by photographs, accompanied if necessary by dimensional details and/or text:

10.11.3. Drawings of parts of the external surface in accordance paragraph 6.9.1 to UNECE Regulation No 17: …

10.11.4. Drawing of bumpers: …

10.11.5. Drawing of the floor line: …

10.12. **Safety belts and/or other restraint systems**

10.12.1. Number and position of safety belts and restraint systems and seats on which they can be used

(L = left-hand side, R = right-hand side, C = centre)				
		Complete EU type-approval mark	Variant, where applicable	Belt adjustment device for height (indicate yes/no/optional)
First row of seats	L			
	C			
	R			
Second row of seats(*)	L			
	C			
	R			
(*) The table may be extended as necessary for vehicles with more than two rows of seats or if there are more than three seats across the width of the vehicle.				

10.12.2. Nature and position of supplementary restraint systems (indicate yes/no/optional)

(L = left-hand side, R = right-hand side, C = centre)				
		Front airbag	Side airbag	Belt pre-loading device
First row of seats	L			
	C			
	R			
Second row of seats(*)	L			
	C			
	R			

(*) The table may be extended as necessary for vehicles with more than two rows of seats or if there are more than three seats across the width of the vehicle.

10.12.3. Number and position of safety belt anchorages and proof of compliance with UNECE Regulation No 14, (i.e. type-approval number or test report): …

10.12.4. A brief description of the electrical/electronic components (if any): …

10.13. **Safety belt anchorages**

10.13.1. Photographs and/or drawings of the bodywork showing the position and dimensions of the actual and the effective anchorages including the R-points: …

10.13.2. Drawings of the belt anchorages and parts of the vehicle structure where they are attached (with the material indication): …

10.13.3. Designation of the types ([u]) of safety belt authorised for fitting to the anchorages with which the vehicle is equipped:

			Anchorage location	
			Vehicle structure	Seat structure
First row of seats				
Right-hand seat	Lower anchorages	outboard / inboard		
	Upper anchorages			
Centre seat	Lower anchorages	right / left		
	Upper anchorages			
Left-hand seat	Lower anchorages	outboard / inboard		
	Upper anchorages			
Second row of seats (*)				
Right-hand seat	Lower anchorages	outboard / inboard		
	Upper anchorages			
Centre seat	Lower anchorages	right / left		
	Upper anchorages			
Left-hand seat	Lower anchorages	outboard / inboard		
	Upper anchorages			

(*) The table may be extended as necessary for vehicles with more than two rows of seats or if there are more than three seats across the width of the vehicle.

10.13.4. Description of a particular type of safety belt where an anchorage is located in the seat backrest or incorporates an energy dissipating device: …

10.14. **Space for mounting rear registration plates (give range where appropriate, drawings may be used where applicable)**

10.14.1. Height above road surface, upper edge: …

10.14.2. Height above road surface, lower edge: …

10.14.3. Distance of the centre line from the longitudinal median plane of the vehicle: …

10.14.4. Distance from the left vehicle edge: …

10.14.5. Dimensions (length x width): …

10.14.6. Inclination of the plane to the vertical: …

10.14.7. Angle of visibility in the horizontal plane: …

10.15. **Rear under-run protection**

10.15.0. Presence: yes/no/incomplete ([1])

10.15.1. Drawing of the vehicle parts relevant to the rear under-run protection, i.e. drawing of the vehicle and/or chassis with position and mounting of the widest rear axle, drawing of the mounting and/or fitting of the rear under-run protection. If the under-run protection is not a special device, the drawing shall clearly show that the required dimensions are met: …

10.15.2. In case of a special device, full description and/or drawing of the rear under-run protection (including mountings and fittings), or, if approved as separate technical unit, type-approval number: …

10.16. **Wheel guards**

10.16.1. Brief description of the vehicle with regard to its wheel guards: …

10.16.2. Detailed drawings of the wheel guards and their position on the vehicle showing the dimensions specified in Figure 1 of Annex II to Commission Regulation (EU) No 1009/2010[8] and taking account of the extremes of tyre/wheel combinations: …

10.17. **Statutory plates**

10.17.1. Photographs and/or drawings of the locations of the statutory plates and inscriptions and of the vehicle identification number: …

10.17.2. Photographs and/or drawings of the statutory plate and inscriptions (completed example with dimensions): …

10.17.3. Photographs and/or drawings of the vehicle identification number (completed example with dimensions): …

10.17.4. Manufacturer's declaration of compliance with the requirements set out in point 2 of Part B of Annex I to Commission Regulation (EU) No 19/2011[9]

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[8] Commission Regulation (EU) No 1009/2010 of 9 November 2010 concerning type-approval requirements for wheel guards of certain motor vehicles and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 292, 10.11.2010, p. 21).

[9] Commission Regulation (EU) No 19/2011 of 11 January 2011 concerning type-approval requirements for the manufacturer's statutory plate and for the vehicle identification number of motor vehicles and their trailers and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 8, 12.1.2011, p. 1).

10.17.4.1. The meaning of characters in the vehicle descriptor section of the VIN as referred to in point 2.1.(b) of Part B of Annex I to Commission Regulation (EU) No 19/2011 and, where applicable, in the vehicle indicator section of the VIN as referred to in point 2.1.(c) of Part B of Annex I to Commission Regulation (EU) No 19/2011 used to comply with the requirements of paragraph 5.3 of ISO Standard 3779-2009 shall be explained: …

10.17.4.2. If characters in the vehicle descriptor section of the VIN are used to comply with the requirements of paragraph 5.4 of ISO Standard 3779-2009 these characters shall be indicated: …

10.18. **Radio interference/electromagnetic compatibility**

10.18.1. Description and drawings/photographs of the shapes and constituent materials of the part of the body forming the engine compartment and the part of the passenger compartment nearest to it: …

10.18.2. Drawings or photographs of the position of metal components housed in the engine compartment (e.g. heating appliances, spare wheel, air filter, steering mechanism, etc.): …

10.18.3. Table and drawing of radio-interference control equipment: …

10.18.4. Particulars of the nominal value of the direct current resistance, and, in the case of resistive ignition cables, of their nominal resistance per metre: …

10.19. **Lateral protection**

10.19.0. Presence: yes/no/incomplete ([1])

10.19.1. Drawing of the vehicle parts relevant to the lateral protection, i.e. drawing of the vehicle and/or chassis with position and mounting of the axle(s), drawing of the mountings and/or the fittings of lateral protection device(s). If the lateral protection is achieved without lateral protection device(s) the drawing shall clearly show that the required dimensions are met: …

10.19.2. In the case of lateral protection device(s), full description and/or drawing of such device(s) (including mountings and fittings) or its/their component type-approval number(s): …

10.20. **Spray-suppression system**

10.20.0. Presence: yes/no/incomplete ([1])

10.20.1. Brief description of the vehicle with regard to its spray-suppression system and the constituent components: …

10.20.2. Detailed drawings of the spray-suppression system and its position on the vehicle showing the dimensions specified in the figures in Annex VI to Regulation (EU) No 109/2011[10] and taking account of the extremes of tyre/wheel combinations: …

[10] Commission Regulation (EU) No 109/2011 of 27 January 2011 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council as regards type-approval requirements for certain categories of motor vehicles and their trailers as regards spray suppression systems (OJ L 34, 9.2.2011, p. 2).

10.20.3. Type-approval number(s) of spray-suppression device(s), if available: …

10.21. **Side-impact resistance**

10.21.1. A detailed description, including photographs and/or drawings, of the vehicle with respect to the structure, the dimensions, the lines and the constituent materials of the side walls of the passenger compartment (exterior and interior), including specific details of the protection system, where applicable: …

10.22. **Front under-run protection**

10.22.0. Presence: yes/no/incomplete ([1])

10.22.1. Drawing of the vehicle parts relevant to the front under-run protection, i.e. drawing of the vehicle and/or chassis with position and mounting and/or fitting of the front under-run protection. If the under-run protection is no special device, the drawing shall clearly show that the required dimensions are met: …

10.22.2. In the case of special device, full description and/or drawing of the front under-run protection (including mountings and fittings), or, if approved as a separate technical unit, type-approval number: …

10.23. **Pedestrian protection**

10.23.1. A detailed description, including photographs and/or drawings, of the vehicle with respect to the structure, the dimensions, the relevant reference lines and the constituent materials of the frontal part of the vehicle (interior and exterior), including detail of any active protection system installed.

10.24. **Frontal protection systems**

10.24.1. General arrangement (drawings or photographs) indicating the position and attachment of the frontal protection systems:

10.24.2. Drawings and/or photographs, where relevant, of air intake grilles, radiator grille, decorative trim, badges, emblems and recesses and any other external projections and parts of the exterior surface which can be regarded as critical (e.g. lighting equipment). If the parts listed in the first sentence are not critical, for documentation purposes they may be replaced by photographs, accompanied if necessary by dimensional details and/or text:

10.24.3. Complete details of fittings required and full instructions, including torque requirements, for fitting:

10.24.4. Drawing of bumpers:

10.24.5. Drawing of the floor line at the vehicle front end:

11. **LIGHTING AND LIGHT SIGNALLING DEVICES**

11.1. Table of all devices: number, make, model, type-approval mark, maximum intensity of main-beam headlamps, colour, tell-tale: …

11.2. Drawing of the position of lighting and light signalling devices: …

11.3. For every lamp and reflector specified in UNECE Regulation No 48 supply the following information (in writing and/or by diagram)

11.3.1. Drawing showing the extent of the illuminating surface: …

11.3.2. Method used for the definition of the apparent surface in accordance with paragraph 2.10 of UNECE Regulation No 48: …

11.3.3. Axis of reference and centre of reference: …

11.3.4. Method of operation of concealable lamps: …

11.3.5. Any specific mounting and wiring provisions: …

11.4. Dipped beam lamps: normal orientation in accordance to paragraph 6.2.6.1 of UNECE Regulation No 48:

11.4.1. Value of initial adjustment: …

11.4.2. Location of indication: …

11.4.3. Description/drawing ([1]) and type of headlamp levelling device (e.g. automatic, stepwise manually adjustable, continuously manually adjustable):

11.4.4. Control device:

11.4.5. Reference marks:

11.4.6. Marks assigned for loading conditions:

Applicable only for vehicles with headlamp levelling device

11.5. A brief description of electrical/electronic components other than lamps (if any): …

12. CONNECTIONS BETWEEN TOWING VEHICLES AND TRAILERS AND SEMI-TRAILERS

12.1. Class and type of the coupling device(s) fitted or to be fitted: …

12.2. Characteristics D, U, S and V of the coupling device(s) fitted or minimal characteristics D, U, S and V of the coupling device(s) to be fitted: … daN

12.3. Instructions for attachment of the coupling type to the vehicle and photographs or drawings of the fixing points at the vehicle as stated by the manufacturer; additional information, if the use of the coupling type is restricted to certain variants or versions of the type of vehicle: …

12.4. Information of the fitting of special towing brackets or mounting plates: …

12.5. Type-approval number(s): …

13. MISCELLANEOUS

13.1. Audible warning device(s)

13.1.1. Location, method of affixing, placement and orientation of the device(s), with dimensions: …

13.1.2. Number of device(s): …

13.1.3. Type-approval number(s): …

13.1.4. Electrical/pneumatic ([1]) circuit diagram: …

13.1.5. Rated voltage or pressure: …

13.1.6. Drawing of the mounting device: …

13.2. Devices to prevent unauthorised use of the vehicle

13.2.1. Protective device

13.2.1.1. A detailed description of the type of vehicle with regard to the arrangement and design of the control or of the unit on which the protective device acts: …

13.2.1.2. Drawings of the protective device and of its mounting on the vehicle: …

13.2.1.3. A technical description of the device: …

13.2.1.4. Details of the lock combinations used: …

13.2.1.5. Vehicle immobiliser

13.2.1.5.1. Type-approval number, if available: …

13.2.1.5.2. For immobilisers not yet approved

13.2.1.5.2.1. A detailed technical description of the vehicle immobiliser and of the measures taken against inadvertent activation: …

13.2.1.5.2.2. The system(s) on which the vehicle immobiliser acts: …

13.2.1.5.2.3. Number of effective interchangeable codes, where applicable: …

13.2.2. Alarm system (if any)

13.2.2.1. Type-approval number, if available: …

13.2.2.2. For alarm systems not yet approved

13.2.2.2.1. A detailed description of the alarm system and of the vehicle parts related to the alarm system installed: …

13.2.2.2.2. A list of the main components comprising the alarm system: …

13.2.3. A brief description of the electrical/electronic components (if any): …

13.3. Towing device(s)

13.3.1. Front: Hook/eye/other ([1])

13.3.2. Rear: Hook/eye/other/none ([1])

13.3.3. Drawing or photograph of the chassis/area of the vehicle body showing the position, construction and mounting of the towing device(s): …

13.4. Details of any non-engine related devices designed to influence fuel consumption (if not covered by other items): …

13.5. Details of any non-engine related devices designed to reduce noise (if not covered by other items): …

13.6. Speed limitation devices

13.6.1. Manufacturer(s): …

13.6.2. Type(s): …

13.6.3. Type-approval number(s), if available: …

13.6.4. Speed or range of speeds at which the speed limitation may be set: … km/h

13.7. Table of installation and use of RF transmitters in the vehicle(s), where applicable: …

Frequency bands (Hz)	Maximum output power (W)	Antenna position at vehicle, specific conditions for installation and/or use
T		

The applicant for type-approval shall also supply, where appropriate:

Appendix 1

A list containing make and type of all electrical and/or electronic components concerned by UNECE Regulation No 10.

Appendix 2

Schematics or drawing of the general arrangement of electrical and/or electronic components concerned by UNECE Regulation No 10 and the general wiring harness arrangement.

Appendix 3

Description of vehicle chosen to represent the type

Body style:

Left- or right-hand drive ([1])

Wheelbase:

Appendix 4

Relevant test report(s) supplied by the manufacturer or approved/recognised laboratories for the purpose of drawing up the type-approval certificate

13.7.1. Vehicle equipped with a 24 GHz short-range radar equipment: yes/no ([1])

14. **SPECIAL PROVISIONS FOR BUSES AND COACHES**

14.1. Class of vehicle: Class I/Class II/Class III/Class A/Class B ([1])

14.1.1. Type-approval number of bodywork approved as a separate technical unit: …

14.1.2. Chassis types where the type-approved bodywork can be installed (manufacturer(s), and types of incomplete vehicle): …

14.2. **Area for passengers (m^2)**

14.2.1. Total (S_0): …

14.2.2. Upper deck (S_{0a}) ([1]): …

14.2.3. Lower deck (S_{0b}) ([1]): …

14.2.4. For standing passengers (S_1): …

14.3. **Number of passengers (seated and standing)**

14.3.1. Total (N): …

14.3.2. Upper deck (N_a) ([1]): …

14.3.3. Lower deck (N_b) ([1]): …

14.4. **Number of passengers seated**

14.4.1. Total (A): …

14.4.2. Upper deck (A_a) ([1]): …

14.4.3. Lower deck (A_b) ([1]): …

14.4.4. Number of wheelchair positions for category M_2 and M_3 vehicles: …

14.5. **Number of service doors:** …

14.6. **Number of emergency exits** (doors, windows, escape hatches, intercommunication staircase and half staircase): …

14.6.1. Total: …

14.6.2. Upper deck ([1]): …

14.6.3. Lower deck ([1]): …

14.7. **Volume of luggage compartments (m^3):** …

14.8. **Area of luggage transportation on the roof (m^2):** …

14.9. **Technical devices facilitating the access to vehicles** (e.g. ramp, lifting platform, kneeling system), if fitted: …

14.10. **Strength of superstructure**

14.10.1. Type-approval number, if available: …

14.10.2. For superstructures not yet approved

14.10.2.1. Detailed description of the superstructure of the type of vehicle including its dimensions, configuration and constituent materials and its attachment to any chassis frame: …

14.10.2.2. Drawings of the vehicle and those parts of its interior arrangement which have an influence on the strength of the superstructure or on the residual space: …

14.10.2.3. Position of centre of gravity of the vehicle in running order in the longitudinal, transverse and vertical directions: …

14.10.2.4. Maximum distance between the centre lines of the outboard passenger seats: …

14.11. **Paragraphs of UNECE Regulations No 66 and No 107 to be accomplished and demonstrated for this technical unit:** …

14.12. **Drawing with dimensions showing the interior arrangement as regards the seating positions, area for standees, wheelchair user(s), luggage compartments including racks and ski-box, if any**

15. **SPECIAL PROVISIONS FOR VEHICLES INTENDED FOR THE TRANSPORT OF DANGEROUS GOODS**

15.1. **Electrical equipment according to Directive 2008/68/EC of the European Parliament and of the Council**[11]

15.1.1. Protection against overheating of conductors: …

15.1.2. Type of circuit breaker: …

15.1.3. Type and operation of battery master switch: …

15.1.4. Description and location of safety barrier for tachograph: …

15.1.5. Description of permanently energised installations. Indicate the EN standard applied: …

15.1.6. Construction and protection of electrical installation situated to the rear of the driver's compartment: …

15.2. **Prevention of fire risks**

15.2.1. Type of not readily flammable material in the driver's compartment: …

15.2.2. Type of heat shield behind the driver's compartment (where applicable): …

15.2.3. Position and heat protection of engine: …

15.2.4. Position and heat protection of the exhaust system: …

15.2.5. Type and design of the endurance braking systems heat protection: …

15.2.6. Type, design and position of combustion heaters: …

15.3. **Special requirements for bodywork, if any, according to Directive 2008/68/EC of the European Parliament and of the Council**

15.3.1. Description of measures to comply with the requirements for Type EX/II and Type EX/III vehicles: …

15.3.2. In the case of Type EX/III vehicles, resistance against heat from the outside: …

16. REUSABILITY, RECYCLABILITY AND RECOVERABILITY

[11] Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods (OJ L 260, 30.9.2008, p. 13)

16.1. Version to which the reference vehicle belongs: …

16.2. Mass of the reference vehicle with bodywork or mass of the chassis with cab, without bodywork and/or coupling device if the manufacturer does not fit the bodywork and/or coupling device (including liquids, tools, spare wheel, if fitted) without driver: …

16.3. Mass of materials of the reference vehicle: …

16.3.1. Mass of material taken into account at the pre-treatment step ([V]): …

16.3.2. Mass of the material taken into account at the dismantling step ([V]): …

16.3.3. Mass of material taken into account at the non-metallic residue treatment step, considered as recyclable ([V]): …

16.3.4. Mass of material taken into account at the non-metallic residue treatment step, considered as energy recoverable ([V]): …

16.3.5. Materials breakdown ([V]): …

16.3.6. Total mass of materials, which are reusable and/or recyclable: …

16.3.7. Total mass of materials, which are reusable and/or recoverable: …

16.4. Rates

16.4.1. Recyclability rate 'R_{cyc}' (%): …

16.4.2. Recoverability rate 'R_{cov}' (%): …

17. ACCESS TO VEHICLE REPAIR AND MAINTENANCE INFORMATION

17.1. Address of principal website for access to vehicle repair and maintenance information: …

17.1.1. Date from which it is available (no later than 6 months from the date of type-approval): …

17.2. Terms and conditions of access to website: …

17.3. Format of the vehicle repair and maintenance information accessible through website: …

Explanatory notes

([1]) Delete where not applicable (there are cases where nothing needs to be deleted when more than one entry is applicable).

([2]) Specify the tolerance.

([3]) Please fill in here the upper and lower values for each variant.

([4]) Only for the purpose of definition of off-road vehicles.

([5]) Vehicles can be fuelled with both petrol and a gaseous fuel but, where the petrol system is fitted for emergency purposes or starting only and of which the petrol tank cannot contain more than 15 litres of petrol, will be regarded for the test as vehicles which can only run a gaseous fuel.

([6]) Optional equipment that affects the dimensions of the vehicle shall be specified.

([7]) To be documented in case of a single OBD engine family and if not already included in the documentation package(s) referred to in point 3.2.12.2.7.0.4.

([8]) Value for the combined WHTC including cold and hot part in accordance with Annex VIII to Regulation (EU) No 582/2011

([9]) To be documented if not already included in the documentation referred to in point 4.2.12.2.7.1.5.

([a]) If a part has been type-approved, that part need not be described if reference is made to such approval. Similarly, a part need not be described if its construction is clearly apparent from the attached diagrams or drawings. For each item for which drawings or photographs shall be attached, give numbers of the corresponding attached documents.

([b]) If the means of identification of type contains characters not relevant to describe the vehicle, component or separate technical unit types covered by this information document, such characters shall be represented in the documentation by the symbol '?' (e.g. ABC??123??).

([c]) Classified according to the definitions set out in Part A of Annex II.

([d]) Designation according to EN 10027-1: 2005. If that is not possible, the following information shall be provided:
— description of the material,
— yield point,
— ultimate tensile stress,
— elongation (in %),
— Brinell hardness.

([f]) Where there is one version with a normal cab and another with a sleeper cab, both sets of masses and dimensions are to be stated.

([g]) Standard ISO 612: 1978 — Road vehicles — Dimensions of motor vehicles and towed vehicles — terms and definitions.

([g1]) Motor vehicle and drawbar trailer: term No 6.4.1.
Semi-trailer and centre-axle trailer: term No 6.4.2.
Note:
In the case of a centre-axle trailer, the axis of the coupling shall be considered as the foremost axle.

([g2]) Term No 6.19.2.

([g3]) Term No 6.20.

([g4]) Term No 6.5.

([g5]) Term No 6.1 and for vehicles other than those of category M1: Article 2(22) of Commission Regulation (EU) No 1230/2012

([g6]) Term No 6.17.

([g7]) Term No 6.2 and for vehicles other than those of category M_1: Article 2(23) of Regulation (EU) No 1230/2012.

([g8]) Term No 6.3 and for vehicles other than those of category M_1: Article 2(24) of Regulation (EU) No 1230/2012.

([g9]) Term No 6.6.

([g10]) Term No 6.10.

([g11]) Term No 6.7.

([g12]) Term No 6.11.

([g13]) Term No 6.18.1.

([g14]) Term No 6.9.

([h]) The mass of the driver is assessed at 75 kg.
The liquid containing systems (except those for used water that must remain empty) are filled to 100 % of the capacity specified by the manufacturer.
The information referred to in points 3.6(b) and 3.6.1(b) do not need to be provided for vehicle categories N_2, N_3, M_2, M_3, O_3, and O_4.

([i]) For trailers or semi-trailers, and for vehicles coupled with a trailer or a semi-trailer, which exert a significant vertical load on the coupling device or the fifth wheel, this load, divided by standard acceleration of gravity, is included in the maximum technically permissible mass.

([j]) 'Coupling overhang' is the horizontal distance between the coupling for centre-axle trailers and the centreline of the rear axle(s).

([k]) In the case of a vehicle that can run either on petrol, diesel, etc., or also in combination with another fuel, items shall be repeated.
In the case of non-conventional engines and systems, particulars equivalent to those referred to here shall be supplied by the manufacturer.

([l]) This figure shall be rounded off to the nearest tenth of a millimetre.

([m]) This value shall be calculated ($\pi = 3{,}1416$) and rounded off to the nearest cm^3.

([n]) Determined in accordance with the requirements of Regulation (EC) No 715/2007 or Regulation (EC) No 595/2009 as applicable.

([o]) Determined in accordance with the requirements of Regulation (EC) No 715/2007 of the European Parliament and of the Council[12] .

([p]) The specified particulars are to be given for any proposed variants.

([q]) With respect to trailers, maximum speed permitted by the manufacturer.

([r]) For tyres of category Z intended to be fitted on vehicles whose maximum speed exceeds 300 km/h equivalent information shall be provided.

([s]) The number of seating positions to be mentioned shall be the one when the vehicle is in motion. A range can be specified in case of modular arrangement.

([t]) 'R-point' or 'seating reference point' means a design point defined by the vehicle manufacturer for each seating position and established with respect to the three-dimensional reference system as specified in Annex III to UNECE Regulation No 125.

([u]) For symbols and marks to be used, see paragraph 5.3. of UNECE Regulation No 16. In the case of 'S' type belts, specify the nature of the type(s).

([v]) These terms are defined in the standard ISO 22628: 2002 — Road vehicles — recyclability and recoverability — calculation method.

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[12] Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 171, 29.6.2007, p. 1)

([x]) Dual-fuel engines.

([x1]) In case of a dual-fuel engine or vehicle.

([x2]) In the case of Type 1B, Type 2B, and Type 3B of dual-fuel engines.

([x3]) Except for dual-fuel engines or vehicles.

PART II

Matrix showing the combinations of the entries listed in Part I within the versions and variants of the type of vehicle

Item No	All	Version 1	Version 2	Version 3	Version n

Explanatory notes

(a) A separate matrix shall be compiled for each variant within the type.

(b) Entries for which there are no restrictions on their combination within a variant shall be listed in the column headed 'all'.

(c) The information specified in the matrix may be presented in an alternative layout or merged with the information provided in accordance with Part I.

(d) Each variant and each version shall be identified by an alphanumerical code consisting of a combination of letters and numbers, which shall also be indicated in the certificate of conformity (Annex IX) of the vehicle concerned.

(e) Variant(s) which fall(s) under Part III of Annex IV shall be identified by a specific alphanumerical code.

ANNEX II

GENERAL DEFINITIONS, CRITERIA FOR VEHICLE CATEGORISATION, TYPE OF VEHICLE AND TYPES OF BODYWORK

INTRODUCTORY PART

Definitions and general provisions

1. **Definitions**

1.1. '*Seating position*' means any location capable of accommodating one person seated who is at least as large as:

(a) the manikin of the 50th percentile adult male in the case of the driver;

(b) the manikin of the 5th percentile adult female in all other cases.

1.2. '*Seat*' means a complete structure with trim, integral or not with the vehicle body structure, which is intended to seat one person.

It includes both an individual seat and a bench seat, as well as folding seats and removable seats.

1.3. '*Goods*' means primarily any movable things.

It includes products in bulk, manufactured goods, liquids, living animals, crops, indivisible loads.

1.4. '*Maximum mass*' means the 'technically permissible maximum laden mass' as specified in point 2.8 of Annex I.

2. **General provisions**

2.1. Number of seating positions

2.1.1. The requirements regarding the number of seating positions apply to seats that are designed for use when the vehicle is travelling on the road.

2.1.2. They do not apply to seats that are designed for use when the vehicle is stationary and which are clearly identified to users either by means of a pictogram or a sign with an appropriate text.

2.1.3. The following requirements apply for the counting of the seating positions:

(a) each individual seat shall be counted as one seating position;

(b) in the case of a bench seat, any space having a width of at least 400 mm measured at the seat cushion level shall be counted as one seating position.

This condition shall not prevent the manufacturer from using the general provisions referred to in point 1.1;

(c) however, a space as referred to in point (b) shall not be counted as one seating position where:

(i) the bench seat includes features that prevent the bottom of the manikin from sitting in a natural way - for example: the presence of a fixed console box, an unpadded area or an interior trim interrupting the nominal seating surface;

(ii) the design of the floor pan located immediately in front of a presumed

seating position (for example the presence of a tunnel) prevents the feet of the manikin from being positioned in a natural way.

2.1.4. With respect to vehicles covered by UNECE Regulations No 66 and No 107, the dimension referred to in point 2.1.3(b) shall be aligned with the minimum space required for one person in relation to the various classes of vehicles.

2.1.5. When seat anchors for a removable seat are present in a vehicle, the removable seat shall be counted in the determination of the number of the seating positions.

2.1.6. An area intended for an occupied wheelchair shall be regarded as one seating position.

2.1.6.1. This provision shall be without prejudice to the requirements of paragraphs 3.6.1 and 3.7 of Annex 8 to UNECE Regulation No 107.

2.2. Maximum mass

2.2.1. In the case of a tractor unit for semi-trailer, the maximum mass to be considered for classifying the vehicle shall include the maximum mass of the semi-trailer borne by the fifth wheel coupling.

2.2.2. In the case of a motor vehicle that can tow a centre-axle trailer or a rigid drawbar trailer, the maximum mass to be considered for classifying the motor vehicle shall include the maximum mass transferred to the towing vehicle by the coupling.

2.2.3. In the case of a semi-trailer, a centre-axle trailer and a rigid drawbar trailer, the maximum mass to be considered for classifying the vehicle shall correspond to the maximum mass transmitted to the ground by the wheels of an axle or group of axles when coupled to the towing vehicle.

2.2.4. In the case of a converter dolly, the maximum mass to be considered for classifying the vehicle shall include the maximum mass of the semi-trailer borne by the fifth wheel coupling.

2.3. Special equipment

2.3.1. Vehicles fitted primarily with fixed equipment such as machinery or apparatus shall be regarded as N or O category.

2.4. Units

2.4.1. Unless otherwise stated any unit of measurement and associated symbol shall conform to the provisions of Council Directive 80/181/EEC[13].

3. Categorisation into vehicle categories

3.1. The manufacturer is responsible for the categorisation of a type of vehicle into a specific category.

For such purposes, all the relevant criteria described in this Annex shall be met.

3.2. The approval authority may request from the manufacturer appropriate additional information with the aim of demonstrating that a type of vehicle needs to be categorised as special purpose vehicle in the special group ('SG Code').

[13] Council Directive 80/181/EEC of 20 December 1979 on the approximation of the laws of the Member States relating to units of measurement and on the repeal of Directive 71/354/EEC (OJ L 39, 15.2.1980, p. 40).

PART A

Criteria for vehicle categorisation

1. Vehicle categories

For the purposes of EU and national type-approval, as well as for EU and national individual vehicle approval, vehicles shall be categorised according to the classification referred to in Article 4.

Approval can only be granted for the categories referred to in Article 4(1).

2. Vehicle subcategories

2.1. Off-road vehicles

'*Off-road vehicle (ORV)*' means a vehicle that belongs to category M or N, having specific technical features which permit its use off the normal roads.

For those categories of vehicles, the letter 'G' shall be added as suffix to the letter and numeral identifying the vehicle category.

The criteria for the subcategorisation of vehicles as 'ORV' shall be specified in section 4 of Part A.

2.2. Special purpose vehicles (SPV)

2.2.1. For incomplete vehicles that are intended to fall into the SPV subcategory, the letter 'S' shall be added as suffix to the letter and numeral identifying the vehicle category.

The various types of special purpose vehicles are defined and listed in section 5.

2.3. Off road special purpose vehicle

2.3.1. '*Off road special purpose vehicle (ORV-SPV)*' means a vehicle that belongs either to category M or N having the specific technical features referred to in points 2.1 and 2.2.

For those categories of vehicles, the letter 'G' shall be added as suffix to the letter and numeral identifying the vehicle category.

Moreover, for incomplete vehicles that are intended to fall into the SPV subcategory, the letter 'S' shall be added as second suffix.

3. Criteria for the categorisation of vehicles in category N

3.1. The categorisation of a type of vehicle in category N shall be based on the technical features of the vehicle as referred to in points 3.2 to 3.6.

3.2. As a matter of principle, the compartment(s) where all the seating positions are located, shall be completely separated from the loading area.

3.3. By way of derogation from the requirements of point 3.2, persons and goods may

be transported in the same compartment under the condition that the loading area is provided with securing devices designed to protect persons transported against the displacement of the load during driving, including severe braking and cornering.

3.4. Securing devices - lashing devices - intended for securing the load as required in point 3.3 as well as partitioning systems, intended for vehicles up to 7,5 tonnes shall be designed in accordance with the provisions of sections 3 and 4 of Standard ISO 27956:2009 'Road vehicles – Securing of cargo in delivery vans – Requirements and test methods'.

3.4.1. The requirements referred to in point 3.4 may be verified by a statement of compliance provided by the manufacturer.

3.4.2. As an alternative to the requirements of point 3.4, the manufacturer may demonstrate to the satisfaction of the approval authority that the securing devices fitted show an equivalent level of protection as provided in the referred standard.

3.5. The number of seating positions excluding the driver's seating position shall not exceed:

(a) 6 in the case of N_1 vehicles;

(b) 8 in the case of N_2 or N_3 vehicles.

3.6. Vehicles shall show a goods-carrying capacity equal or higher than the person-carrying capacity expressed in kg.

3.6.1. For such purposes, the following equations shall be satisfied in all configurations, in particular when all seating positions are occupied:

(a) when $N = 0$:

$P - M \geq 100$ kg

(b) when $0 < N \leq 2$:

$P - (M + N \times 68) \geq 150$ kg;

(c) when $N > 2$:

$P - (M + N \times 68) \geq N \times 68$;

where the letters have the following meaning:

'P' is the technically permissible maximum laden mass;

'M' is the mass in running order;

'N' is the number of seating positions excluding the driver's seating position.

3.6.2. The mass of equipment that is fitted to the vehicle in order to accommodate goods (e.g. tank, bodywork, etc.), to handle goods (e.g. crane, lift, etc.) and to secure goods (e.g. cargo securing devices) shall be included in M.

3.6.3. The mass of equipment that is not used for the purposes referred to in point 3.6.2 (such as a compressor, a winch, an electric power generator, broadcasting equipment, etc.) shall not be included in M for the purposes of the application of the formulae referred to in point 3.6.1.

3.7. The requirements referred to in points 3.2 to 3.6 shall be met for all variants and

versions within the type of vehicle.

3.8. Criteria for the categorisation of vehicles as N_1.

3.8.1. A vehicle shall be categorised as N_1 when all the applicable criteria are met.

When one or more of the criteria are not met, the vehicle shall be categorised as M_1.

3.8.2. In addition to the general criteria referred to in points 3.2 to 3.6, the criteria specified in points 3.8.2.1 to 3.8.2.3.5 shall be met for the categorisation of vehicles for which the compartment where the driver is located and the load are within a single unit (i.e. bodywork 'BB').

3.8.2.1. The fact that a wall or a partition, complete or partial, is fitted between a seat row and the cargo area shall not rule out the obligation to meet the required criteria.

3.8.2.2. The criteria shall be as follows:

(a) the loading of the goods shall be possible by a rear door, a tailgate or a side-door designed and constructed for that purposes;

(b) in the case of a rear door or a tailgate, the loading aperture shall meet the following requirements:

(i) in the case the vehicle is fitted with only one row of seats or with only the driver seat, the minimum height of the loading aperture shall be at least 600 mm;

(ii) in the case the vehicle is fitted with two or more rows of seats, the minimum height of the loading aperture shall be at least 800 mm and the aperture shall show a surface of at least 12 800 cm2;

(c) The cargo area shall meet the following requirements:

'*cargo area*' means the part of the vehicle located behind the row(s) of seats or behind the driver seat when the vehicle is fitted with only one driver seat;

(i) the loading surface of the cargo area shall be generally flat;

(ii) where the vehicle is fitted with only one row of seats or with one seat, the minimum length of the cargo area shall be at least 40 % of the wheelbase;

(iii) where the vehicle is fitted with two or more rows of seats, the minimum length of the cargo area shall be at least 30 % of the wheelbase.

Where the seats of the last row of seats can be easily removed from the vehicle without the use of special tools, the requirements regarding the length of the cargo area shall be met with all the seats installed in the vehicle;

(iv) the requirements regarding the length of the cargo area shall be met when the seats of the first row or of the last row, as the case may be, are upright in their normal position for use by the vehicle occupants.

3.8.2.3. Specific conditions for measurement

3.8.2.3.1. Definitions

(a) '*Height of the loading aperture*', means the vertical distance between two horizontal planes tangent respectively to the highest point of the lower part of

the doorway and the lowest point of the upper part of the doorway;

(b) '*Surface of the loading aperture*' means the greatest surface of the orthogonal projection on a vertical plane, perpendicular to the centreline of the vehicle, of the maximum aperture permitted when the rear door(s) or tailgate is (are) wide open;

(c) '*Wheelbase*', for the purposes of application of the formulae in points 3.8.2.2 and 3.8.3.1, means the distance between:

(i) the centreline of the front axle and the centreline of the second axle in the case of a two axle vehicle; or

(ii) the centreline of the front axle and the centreline of a virtual axle equally distant from the second and third axle in the case of a three axle vehicle.

3.8.2.3.2. Seat adjustments

(a) The seats shall be adjusted at their rear outermost positions;

(b) The seat back, if adjustable, shall be adjusted as to accommodate the three-dimensional H-point machine at a torso angle of 25 degrees;

(c) The seat back, if not adjustable, shall be in the position designed by the vehicle manufacturer;

(d) When the seat is adjustable in height, it shall be adjusted to its lowest position.

3.8.2.3.3. Vehicle conditions

(a) The vehicle shall be in loaded conditions corresponding to its maximum mass;

(b) The vehicle shall be with its wheels straight ahead.

3.8.2.3.4. The requirements of point 3.8.2.3.2 shall not apply when the vehicle is fitted with a wall or a partition.

3.8.2.3.5. Measurement of the length of the cargo area

(a) When the vehicle is not fitted with a partition or a wall, the length shall be measured from a vertical plane tangent to the rear outermost point of the top of the seat back to the rear internal pane or door or tailgate, in closed position;

(b) When the vehicle is fitted with a partition or a wall, the length shall be measured from a vertical plane tangent to the rear outermost point of the partition or the wall to the rear internal pane or door or tailgate, as the case may be, in closed position;

(c) The requirements concerning the length shall be fulfilled at least along a horizontal line situated in the longitudinal vertical plane passing through the centreline of the vehicle, at the level of the load floor.

3.8.3. In addition to the general criteria referred to in points 3.2 to 3.6, the criteria specified in points 3.8.3.1 to 3.8.3.4 shall be met for the categorisation of vehicles for which the compartment where the driver is located and the load are not within a single unit (i.e. bodywork 'BE').

3.8.3.1. Where the vehicle is fitted with an enclosure type body, the following shall apply:

(a) the loading of the goods shall be possible by a rear door, a tailgate or a panel or other means;

(b) the minimum height of the loading aperture shall be at least 800 mm and the

aperture shall show a surface of at least 12 800 cm^2;

(c) The minimum length of the cargo area shall be at least 40 % of the wheelbase.

3.8.3.2. Where the vehicle is fitted with an open type cargo area, only the provisions referred to in points 3.8.3.1(a) and (c) shall apply.

3.8.3.3. For the application of the provisions referred to in point 3.8.3, the definitions in point 3.8.2.3.1 shall apply.

3.8.3.4. However, the requirements concerning the length of the cargo area shall be fulfilled along a horizontal line situated in the longitudinal plane passing through the centreline of the vehicle at the level of the load floor.

4. Criteria for the sub-categorisation of vehicles as off-road vehicles

4.1. M_1 or N_1 vehicles shall be subcategorised as off-road vehicles if they satisfy at the same time the following conditions:

(a) at least one front and at least one rear axle designed to be driven simultaneously irrespective of whether one powered axle can be disengaged;

(b) at least one differential locking mechanism or a mechanism having similar effect is fitted;

(c) they are able to climb at least a 25 % gradient as solo vehicle;

(d) they satisfy five out of the following six requirements:

(i) the approach angle shall be at least 25 degrees;

(ii) the departure angle shall be at least 20 degrees;

(iii) the ramp angle shall be at least 20 degrees;

(iv) the ground clearance under the front axle shall be at least 180 mm;

(v) the ground clearance under the rear axle shall be at least 180 mm;

(vi) the ground clearance between the axles shall be at least 200 mm.

4.2. M_2, N_2 or M_3 vehicles the maximum mass of which does not exceed 12 tonnes shall be subcategorised as off-road vehicles if they satisfy the condition set out in point (a) or both conditions set out in points (b) and (c):

(a) all their axles are driven simultaneously, irrespective of whether one or more powered axles can be disengaged;

(b) (i) at least one front and at least one rear axle are designed to be driven simultaneously irrespective of whether one powered axle can be disengaged;

(ii) at least one differential locking mechanism or a mechanism having the same effect is fitted;

(iii) they are able to climb a 25 % gradient as a solo vehicle;

(c) they satisfy at least five out of the following six requirements if their maximum mass does not exceed 7,5 tonnes and at least four if their maximum mass exceeds 7,5 tonnes:

(i) the approach angle shall be at least 25 degrees;

(ii) the departure angle shall be at least 25 degrees;

(iii) the ramp angle shall be at least 25 degrees;

(iv) the ground clearance under the front axle shall be at least 250 mm;

(v) the ground clearance between axles shall be at least 300 mm;

(vi) the ground clearance under the rear axle shall be at least 250 mm.

4.3. M_3 or N_3 vehicles whose maximum mass exceeds 12 tonnes shall be subcategorised as off-road vehicles if they satisfy the condition set out in point (a) or both conditions set out in points (b) and (c):

(a) all their axles are driven simultaneously, irrespective of whether one or more powered axles can be disengaged;

(b) (i) at least half of the axles (or two axles out of the three in the case of a three axle vehicle and three axles in the case of a five axle vehicle) is designed to be driven simultaneously, irrespective of whether one powered axle can be disengaged;

(ii) there is at least one differential locking mechanism or a mechanism having similar effect;

(iii) they are able to climb a 25 % gradient as solo vehicle;

(c) they satisfy at least four out of the following six requirements:

(i) the approach angle shall be at least 25 degrees;

(ii) the departure angle shall be at least 25 degrees;

(iii) the ramp angle shall be at least 25 degrees;

(iv) the ground clearance under the front axle shall be at least 250 mm;

(v) the ground clearance between axles shall be at least 300 mm;

(vi) the ground clearance under the rear axle shall be at least 250 mm.

4.4. The procedure for checking compliance with the geometrical provisions referred to in this section shall be set out in Appendix 1.

5. **Special purpose vehicles**

	Name	Code	Definition
5.1.	Motor caravan	SA	A vehicle of category M with living accommodation space which contains the following equipment as a minimum: (a) seats and table; (b) sleeping accommodation which may be converted from the seats; (c) cooking facilities; (d) storage facilities. This equipment shall be rigidly fixed to the living compartment. However, the table may be designed to be easily removable.
5.2.	Armoured vehicle	SB	A vehicle intended for the protection of conveyed persons or goods with anti-bullet armour plating.
5.3.	Ambulance	SC	A vehicle of category M intended for the transport of sick or injured persons and having special equipment for such purpose.
5.4.	Hearse	SD	A vehicle of category M intended for the transport of deceased persons and having special equipment for such purpose.
5.5.	Wheelchair accessible vehicle	SH	A vehicle of category M_1 constructed or converted specifically so that they accommodate one or more persons seated in their wheelchairs when travelling on the road.
5.6.	Trailer caravan	SE	A vehicle of category O as defined in term 3.2.1.3 of Standard ISO 3833:1977.
5.7.	Mobile crane	SF	A vehicle of category N_3, not fitted for the carriage of goods, provided with a crane whose lifting moment is equal to or higher than 400 kNm.
5.8.	Special group	SG	A special purpose vehicle that does not enter in any of the definitions mentioned in this section.
5.9.	Converter dolly	SJ	A vehicle of category O equipped with a fifth-wheel coupling to support a semi-trailer with a view to converting the latter into a trailer.

5.10.	Exceptional load transport trailer	SK	A vehicle of category O_4 intended for the transport of indivisible loads that is subject to speed and traffic restrictions because of its dimensions. Under this term are also included hydraulic modular trailers irrespective of the number of modules.
5.11.	Exceptional load transport motor vehicle	SL	A road tractor or tractor unit for semi-trailer of category N_3 meeting all the following conditions: (a) having more than two axles and at least half of the axles (two axles out of three in the case of a three axle vehicle and three axles out of five in the case of a five axle vehicle) designed to be driven simultaneously, irrespective of whether one powered axle can be disengaged, (b) that is designed for towing and pushing exceptional load transport trailer of category O_4, (c) that has a minimum engine power of 350 kW, and (d) that can be equipped with an additional front coupling device for heavy towable masses
5.12.	Multi-equipment carrier	SM	An off-road vehicle of category N (as defined in point 2.3) designed and constructed for pulling, pushing, carrying and actuating certain inter-changeable equipment, (a) with not less than two mounting areas for this equipment, (b) with standardised, mechanical, hydraulic and/or electrical interfaces (e.g. Power take off) for powering and actuating the inter-changeable equipment and (c) that fulfils the definition of ISO 3833-1977, paragraph 3.1.4 (special vehicle). If the vehicle is equipped with an auxiliary load platform, its maximum length shall not exceed: (a) 1,4 times of the front or rear track width of the vehicle, whichever is the larger in the case of two axle vehicles, or (b) 2,0 times of the front or rear track width of the vehicle, whichever is the larger in the case of vehicles having more than two axles

6. **Remarks**

6.1. Type-approval shall not be granted:

(a) to converter dolly as defined in section 5 of Part A;

(b) to rigid drawbar trailers as defined in section 4 of Part C;

(c) to trailers in which persons may be carried when travelling on the road.

6.2. Point 6.1 is without prejudice to the provisions of Article 40 on national small series type-approval.

PART B

Criteria for types of vehicle, variants and versions

1. **Category M_1**

1.1. Type of vehicle

1.1.1. A 'type of vehicle' shall consist of vehicles that have the following features in common:

(a) the manufacturer's company name.

A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the design and assembly of the essential parts of the body structure in the case of a self-supporting body.

The same shall apply to vehicles the bodywork of which is bolted on or welded to a separate frame;

1.1.2. By way of derogation from the requirements of point 1.1.1(b), when the manufacturer uses the floor portion of the body structure as well as the essential constituent elements forming the front part of the body structure located directly in front of the windscreen bay, in the construction of different kinds of bodywork (for example a saloon and a coupe), those vehicles may be considered as belonging to the same type. Evidence thereof shall be provided by the manufacturer.

1.1.3. A type shall consist of at least one variant and one version.

1.2. Variant

1.2.1. A 'variant' within a type of vehicle shall group the vehicles that have the following construction features in common:

(a) the number of lateral doors or the type of bodywork as defined in section 2 of Part C when the manufacturer uses the criterion of point 1.1.2;

(b) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L4, V6 or other);

(c) the number of axles;

(d) the number, and interconnection of powered axles;

(e) the number of steered axles;

(f) the stage of completion (e.g. complete/incomplete).

(g) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

1.3. Version

1.3.1. A 'version' within a variant shall group the vehicles that have the following features in common:

(a) the technically permissible maximum laden mass;

(b) the engine capacity in the case of internal combustion engine;

(c) the maximum engine power output or the maximum continuous rated power (electric motor);

(d) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(e) the maximum number of seating positions;

(f) drive-by sound level;

(g) exhaust emission level (for example Euro 5, Euro 6 or other);

(h) combined or weighted, combined CO_2 emissions;

(i) electric energy consumption (weighted, combined);

(j) combined or weighted, combined fuel consumption;

(k) the existence of a unique set of innovative technologies, as specified in Article 12 of Regulation (EC) No 443/2009.

2. **Categories M_2 and M_3**

2.1. Type of vehicle

2.1.1. A 'type of vehicle' shall consist of vehicles that have the following features in common:

(a) the manufacturer's company name.

A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the category;

(c) the following aspects of construction and design:

(i) the design and construction of the essential constituent elements forming the chassis;

(ii) the design and construction of the essential constituent elements forming the body structure in the case of a self-supporting body;

(d) the number of decks (single or double);

(e) the number of sections (rigid/articulated);

(f) the number of axles;

(g) the mode of energy supply (on-board or off-board);

2.1.2. A type shall consist of at least one variant and one version.

2.2. Variant

2.2.1. A ‘variant’ within a type of vehicle shall group the vehicles that have all of the following construction features in common:

(a) the type of bodywork as defined in section 3 of Part C;

(b) the class or combination of classes of vehicles as defined in paragraph 2.1.1 of UNECE Regulation No 107 (only in the case of complete and completed vehicles);

(c) the stage of completion (e.g. complete/incomplete/completed);

(d) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L6, V8 or other).

(e) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

2.3. Version

2.3.1. A ‘version’ within a variant shall group the vehicles that have all the following features in common:

(a) the technically permissible maximum laden mass;

(b) the ability of the vehicle to tow a trailer or not;

(c) the engine capacity in the case of internal combustion engine;

(d) the maximum engine power output or the maximum continuous rated power (electric motor);

(e) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(f) drive-by sound level;

(g) exhaust emission level (for example Euro IV, Euro V or other).

3. **Category N_1**

3.1. Type of vehicle

3.1.1. A ‘type of vehicle’ shall consist of vehicles that have the following features in common:

(a) the manufacturer’s company name.

A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the design and assembly of the essential parts of the body structure in the case of a self-supporting body;

(c) the design and the construction of the essential constituent elements forming the chassis in the case of a non-self-supporting body;

3.1.2. By way of derogation from the requirements of point 3.1.1(b), when the manufacturer uses the floor portion of the body structure as well the essential constituent elements forming the front part of the body structure located directly in front of the windscreen bay, in the construction of different kinds of bodywork (for example a van and a chassis-cab, different wheelbases and different roof heights), those vehicles may be considered as belonging to the same type. Evidence thereof shall be provided by the manufacturer.

3.1.3. A type of vehicle shall consist of at least one variant and one version.

3.2. Variant

3.2.1. A 'variant' within a type of vehicle shall group the vehicles that have the following construction features in common:

(a) the number of lateral doors or the type of bodywork as defined in section 4 of Part C (for complete and completed vehicles) when the manufacturer uses the criterion of point 3.1.2;

(b) the stage of completion (e.g. complete/incomplete/completed);

(c) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L6, V8 or other);

(d) the number of axles;

(e) the number and interconnection of powered axles;

(f) the number of steered axles.

(g) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

3.3. Version

3.3.1. A 'version' within a variant shall group the vehicles that have the following features in common:

(a) the technically permissible maximum laden mass;

(b) the engine capacity in the case of internal combustion engine;

(c) the maximum engine power output or maximum continuous rated power (electric motor);

(d) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(e) the maximum number of seating positions;

(f) drive-by sound level;

(g) exhaust emission level (for example Euro 5, Euro 6 or other);

(h) combined or weighted, combined CO_2 emissions;

(i) electric energy consumption (weighted, combined);

(j) combined or weighted, combined fuel consumption.

4. Categories N_2 and N_3

4.1. Type of vehicle

4.1.1. A 'type of vehicle' shall consist of vehicles that have the following features in common:

(a) the manufacturer's company name.

A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the category;

(c) the design and construction of the chassis that are common to a single line of product;

(d) the number of axles;

4.1.2. A type of vehicle shall consist of at least one variant and one version.

4.2. Variant

4.2.1. A 'variant' within a type of vehicle shall group the vehicles that have the following construction features in common:

(a) the body structural concept or type of bodywork as defined in section 4 of Part C and in Appendix 2 (only for complete and completed vehicles);

(b) the stage of completion (e.g. complete/incomplete/completed);

(c) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L6, V8 or other);

(d) the number and interconnection of powered axles;

(e) the number of steered axles;

(f) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

4.3. Version

4.3.1. A ‘version’ within a variant shall group the vehicles that have the following features in common:

(a) the technically permissible maximum laden mass;

(b) the ability or not to tow a trailer as follows:

(i) an unbraked trailer;

(ii) a trailer with an inertia (or overrun) braking system as defined in paragraph 2.12 of UNECE Regulation No 13;

(iii) a trailer with a continuous or semi-continuous braking system as defined in paragraphs 2.9 and 2.10 of UNECE Regulation No 13;

(iv) a trailer of category O_4 that results in a maximum mass of the combination not exceeding 44 tonnes;

(v) a trailer of category O_4 that results in a maximum mass of the combination exceeding 44 tonnes;

(c) the engine capacity;

(d) the maximum engine power output;

(e) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(f) drive-by sound level;

(g) exhaust emission level (for example Euro IV, Euro V or other).

5. **Categories O_1 and O_2**

5.1. Type of vehicle

5.1.1. A ‘type of vehicle’ shall consist of vehicles that have the following features in common:

(a) the manufacturer’s company name.

A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the category;

(c) the concept as defined in section 5 of Part C;

(d) the following aspects of construction and design:

(i) the design and construction of the essential constituent elements forming the chassis;

(ii) the design and construction of the essential constituent elements forming the body structure in the case of a self-supporting body;

(e) the number of axles.

5.1.2. A type of vehicle shall consist of at least one variant and one version.

5.2. Variant

5.2.1. A ‘variant’ within a type of vehicle shall group the vehicles that have the

following construction features in common:

(a) the kind of bodywork as referred to in Appendix 2 (for complete and completed vehicles);

(b) the stage of completion (e.g. complete/incomplete/completed);

(c) the type of braking system (e.g. unbraked/inertia/power).

(d) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

5.3. Version

5.3.1. A 'version' within a variant shall group the vehicles that have the following features in common:

(a) the technically permissible maximum laden mass;

(b) the concept of the suspension (air, steel or rubber suspension, torsion bar or other);

(c) the concept of the drawbar (triangle, tube or other).

6. **Categories O_3 and O_4**

6.1. Type of vehicle

6.1.1. A 'type of vehicle' shall consist of vehicles that have the following features in common:

(a) the manufacturer's company name.

A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the category;

(c) the concept of the trailer with relation to the definitions in section 5 of Part C;

(d) the following aspects of construction and design:

(i) the design and construction of the essential constituent elements forming the chassis;

(ii) the design and construction of the essential constituent elements forming the body structure in the case of trailers with a self-supporting body;

(e) the number of axles.

6.1.2. A type of vehicle shall consist of at least one variant and one version.

6.2. Variants

6.2.1. A 'variant' within a type of vehicle shall group the vehicles that have the following construction and design features in common:

(a) the kind of bodywork as referred to in Appendix 2 (for complete and

completed vehicles);

(b) the stage of completion (e.g. complete/incomplete/completed);

(c) the concept of the suspensions (steel, air or hydraulic suspension);

(d) the following technical features:

(i) the capability or not for the chassis to be extendible;

(ii) the deck height (normal, low loader, semi-low loader etc.);

(e) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

6.3. Versions

6.3.1. A 'version' within a variant shall group the vehicles that have the following features in common:

(a) the technically permissible maximum laden mass;

(b) the subdivisions or combination of subdivisions referred to in points 3.2 and 3.3 of Annex I to Council Directive 96/53/EC[14] into which the axle spacing between two consecutive axles forming a group belongs;

(c) the definition of the axles in the following respects:

(i) lift axles (number and position);

(ii) loadable axles (number and position);

(iii) steered axle (number and position).

7. Common requirements for all vehicle categories

7.1. When a vehicle falls into several categories because of its maximum mass or the number of seating positions or both, the manufacturer may select to use the criteria of one or the other vehicle category for the definition of the variants and the versions.

7.1.1. Examples:

(a) a vehicle 'A' may be type-approved as N_1 (3,5 tonnes) and N2 (4,2 tonnes) in relation to its maximum mass. In such a case, the parameters mentioned in category N_1 may be used also for the vehicle that falls into category N_2 (or vice-versa);

(b) a vehicle 'B' may be type-approved as M_1 and M_2 in relation to the number of seating positions (7 + 1 or 10 + 1), the parameters mentioned in category M_1 may be used also for the vehicle that falls into category M_2 (or vice-versa).

7.2. A vehicle of category N may be type-approved against the provisions required for category M_1 or M_2, as the case may be, when it is intended to be converted into a vehicle of that category during the next step of a multi-stage type-approval procedure.

[14] Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic (OJ L 235, 17.9.1996, p. 59).

7.2.1. This option shall only be permitted for incomplete vehicles.

Such vehicles shall be identified by a specific variant code given by the manufacturer of the base vehicle.

7.3. Type-, variant- and version designations

7.3.1. The manufacturer shall allocate an alphanumeric code to each type of vehicle, variant and version, made up of Roman letters and/or Arabic numerals.

The use of brackets and hyphens is permitted provided they do not replace a letter or a numeral.

7.3.2. The whole code shall be designated: Type-Variant-Version or 'TVV'.

7.3.3. The TVV shall clearly and unequivocally identify a unique combination of technical features in relation to the criteria defined in Part B of this Annex.

7.3.4. The same manufacturer may use the same code in order to define a type of vehicle when the latter falls in two or more categories.

7.3.5. The same manufacturer shall not use the same code in order to define a type of vehicle for more than one type-approval within the same vehicle category.

7.4. Number of characters for the TVV

7.4.1. The number of characters shall not exceed:

(a) 15 for the code of the type of vehicle;

(b) 25 for the code of one variant;

(c) 35 for the code of one version.

7.4.2. The complete alphanumeric 'TVV' shall not contain more than 75 characters.

7.4.3. When the TVV is used as a whole, a space shall be left between the type, the variant and the version.

Example of such TVV: 159AF[…*space*]0054[…*space*]977K(BE).

PART C

Definitions of types of bodywork

1. **General**

1.1. The type of bodywork referred to in section 9 of Annex I and Part 1 of Annex III as well as the code for bodywork referred to in item 38 of Annex IX shall be indicated by means of codes.

The list of codes shall apply primarily to complete and completed vehicles.

1.2. As regards vehicles of categories M, the type of bodywork shall consist of two letters as specified in sections 2 and 3.

1.3. As regards vehicles of categories N and O, the type of bodywork shall consist of two letters as referred to in sections 4 and 5.

1.4. Where necessary (especially for the types of bodywork referred to respectively in points 4.1 and 4.6 and in points 5.1 to 5.4), they shall be supplemented by two digits.

1.4.1. The list of digits shall be laid down in Appendix 2 to this Annex.

1.5. For special purpose vehicles, the type of bodywork to be used shall be linked to the category of the vehicle.

2. **Vehicles belonging to category M_1**

Ref.	Code	Name	Definition
2.1.	AA	Saloon	A vehicle defined in term 3.1.1.1 of Standard ISO 3833:1977, fitted with at least four side windows.
2.2.	AB	Hatchback	A saloon as defined in 2.1 with a hatch at the rear end of the vehicle.
2.3.	AC	Station wagon	A vehicle defined in term 3.1.1.4 of Standard ISO 3833:1977.
2.4.	AD	Coupé	A vehicle defined in term 3.1.1.5 of Standard ISO 3833:1977.
2.5.	AE	Convertible	A vehicle defined in terms No 3.1.1.6 of Standard ISO 3833:1977. However, a convertible may have no door.
2.6.	AF	Multi-purpose vehicle	A vehicle other than AG and those mentioned in AA to AE intended for carrying persons and their luggage or occasionally goods, in a single compartment.
2.7.	AG	Truck station wagon	A vehicle defined in term No 3.1.1.4.1 of Standard ISO 3833:1977. However, the luggage compartment must be completely separated from the passenger compartment. In addition, the reference point of the driver's seating position needs not to be at least at

			750 mm above the surface supporting the vehicle.

3. **Vehicles belonging to category M_2 or M_3**

Ref.	Code	Name	Definition
3.1.	CA	Single-deck vehicle	A vehicle where the spaces provided for persons are arranged in a single level or in a way that they do not constitute two superimposed levels;
3.2.	CB	Double-deck vehicle	A vehicle defined in paragraph 2.1.6 of UNECE Regulation No 107;
3.3.	CC	Single-deck articulated vehicle	A vehicle defined in paragraph 2.1.3 of UNECE Regulation No 107 with a single deck;
3.4.	CD	Double-deck articulated vehicle	A vehicle defined in paragraph 2.1.3.1 of UNECE Regulation No 107;
3.5.	CE	Low-floor single-deck vehicle	A vehicle defined in paragraph 2.1.4 of UNECE Regulation No 107 with a single deck;
3.6.	CF	Low-floor double-deck vehicle	A vehicle defined in paragraph 2.1.4 of UNECE Regulation No 107 with a double deck;
3.7.	CG	Articulated low-floor single-deck vehicle	A vehicle that combines the technical features of points 3.3 and 3.5 of this table;
3.8.	CH	Articulated low-floor double-deck vehicle	A vehicle that combines the technical features of points 3.4 and 3.6 of this table;
3.9.	CI	Open top single deck vehicle	A vehicle with partial roof or without roof;
3.10.	CJ	Open top double deck vehicle	A vehicle without roof over all or part of its upper deck;
3.11.	CX	Bus chassis	An incomplete vehicle with just chassis rails or tube assembly, power train, axles, that is intended to be completed with bodywork, customised to the needs of the transport operator.

4. **Motor vehicles of category N_1, N_2 or N_3**

Ref.	Code	Name	Definition
4.1.	BA	Lorry	A vehicle that is designed and constructed exclusively or principally for conveying goods. It may also tow a trailer.
4.2.	BB	Van	A lorry with the compartment where the driver is located and cargo area within a single unit;
4.3.	BC	Tractor unit for semi-trailer	A towing vehicle that is designed and constructed exclusively or principally to tow semi-trailers;
4.4.	BD	Road tractor	A towing vehicle that is designed and constructed exclusively to tow trailers other than semi-trailers;
4.5.	BE	Pick-up truck	A vehicle of a maximum mass not exceeding 3 500 kg in which the seating positions and the cargo area are not located in a single compartment;
4.6.	BX	Chassis-cab or chassis-cowl	An incomplete vehicle with just a cabin (complete or partial), chassis rails, power train, axles, which is intended to be completed with bodywork, customised to the needs of the transport operator.

5. **Vehicles of category O**

Ref.	Code	Name	Definition
5.1.	DA	Semi-trailer	A trailer that is designed and constructed to be coupled to a tractor unit or to a converter dolly and to impose a substantial vertical load on the towing vehicle or on the converter dolly. The coupling to be used for a vehicle combination shall consist of a king pin and a fifth wheel.
5.2.	DB	Drawbar trailer	A trailer having at least two axles, of which at least one is a steered axle: (a) equipped with a towing device which can move vertically (in relation to the trailer) and (b) that transmits less than 100 daN as a static vertical load to the towing vehicle.
5.3.	DC	Centre-axle trailer	A trailer where the axle(s) is (are) positioned close to the centre of gravity of the vehicle (when uniformly loaded) so that only a small static vertical load, not

			exceeding 10 % of that corresponding to the maximum mass of the trailer or a load of 1 000 daN (whichever is the lesser) is transmitted to the towing vehicle.
5.4.	DE	Rigid drawbar trailer	A trailer with one axle or one group of axles fitted with a drawbar which transmits a static load not exceeding 4 000 daN to the towing vehicle due to its construction and that does not meet the definition of a centre-axle trailer. The coupling to be used for a vehicle combination shall not consist of a king pin and a fifth wheel.

Appendix 1

Procedure for checking whether a vehicle can be categorised as off-road vehicle

1. **General**

1.1. For the purposes of classification of a vehicle as off-road vehicle, the procedure described in this Appendix shall apply.

2. **Test conditions for geometric measurements**

2.1. Vehicles belonging to category M_1 or N_1 shall be in unloaded conditions with a manikin of the 50th percentile male installed on the driver's seat and fitted with coolant fluid, lubricants, fuel, tools, spare-wheel (if fitted as OEM equipment).

The manikin may be replaced by a similar device having the same mass.

2.2. Vehicles other than those referred to in point 2.1 shall be loaded to their technically permissible maximum laden mass.

The distribution of the mass on the axles shall be the one that represents the worst case with respect to compliance with the respective criteria.

2.3. A vehicle representative of the type shall be submitted to the technical service in the conditions specified in point 2.1 or 2.2. The vehicle shall be in a stationary position with its wheels set straight ahead.

The ground on which measurements are made shall be as flat and horizontal (maximum of inclination 0,5 %) as possible.

3. **Measurement of approach, departure and ramp angles**

3.1. The approach angle shall be measured in accordance with paragraph 6.10 of Standard ISO 612:1978.

3.2. The departure angle shall be measured in accordance with paragraph 6.11 of Standard ISO 612:1978.

3.3. The ramp angle shall be measured in accordance with paragraph 6.9 of Standard ISO 612:1978.

3.4. When measuring the departure angle rear underrun protection devices which are adjustable in height may be set in the upper position.

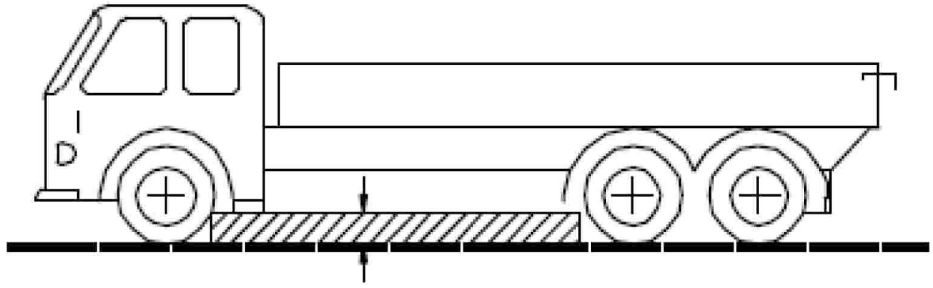
3.5. The prescription in point 3.4 shall not be construed as an obligation for the base vehicle to be fitted with a rear underrun protection as original equipment. However, the base vehicle manufacturer shall inform the next stage manufacturer that the vehicle has to comply with the requirements on departure angle when fitted with a rear underrun protection.

4. **Measurement of ground clearance**

4.1. Ground clearance between the axles

4.1.1. '*Ground clearance between the axles*' means the shortest distance between the ground plane and the lowest fixed point of the vehicle.

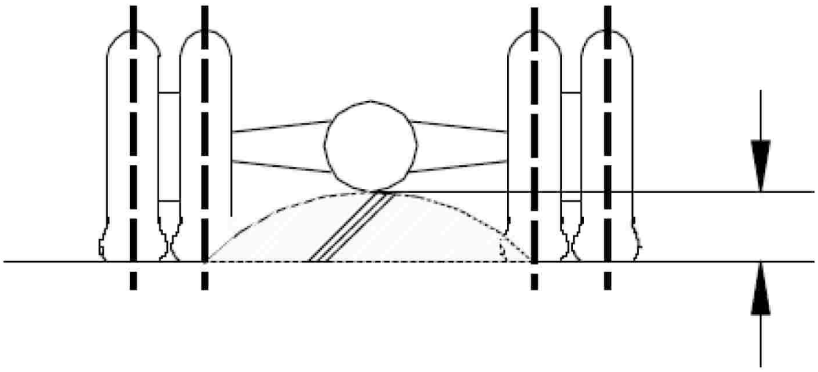
For the application of the definition, the distance between the last axle of a front group of axle and the first axle of a rear group of axle shall be considered.



4.1.2. No rigid part of the vehicle may project into the shaded area shown on the figure.

4.2. Ground clearance beneath one axle

4.2.1. '*Ground clearance beneath one axle*' means the distance beneath the highest point of the arc of a circle passing through the centre of the tyre footprint of the wheels on one axle (the inner wheels in the case of twin tyres) and touching the lowest fixed point of the vehicle between the wheels.



4.2.2. Where appropriate, the measurement of ground clearance shall be conducted on each of the several axles of a group of axles.

5. **Gradeability**

5.1. '*Gradeability*' means the ability of a vehicle to negotiate a gradient.

5.2. To the effect of checking the gradeability of an incomplete and a complete vehicle of category M_2, M_3, N_2 and N_3, a test shall be performed.

5.3. The test shall be conducted by the technical service on a vehicle representative of the type to be tested.

5.4. At the request of the manufacturer and under the conditions specified in Annex XVI, the gradeability of a type of vehicle may be demonstrated by virtual testing.

6. **Test conditions and pass-fail criterion**

6.1. The conditions set out in Annex II to Regulation (EU) No 1230/2012 shall apply.

6.2. The vehicle shall climb the gradient at a steady speed without any wheel slipping, longitudinally or laterally.

Appendix 2

Digits used to supplement the codes to be used for various kinds of bodywork

01 Flat bed;

02 Drop-side;

03 Box body;

04 Conditioned body with insulated walls and equipment to maintain the interior temperature;

05 Conditioned body with insulated walls but without equipment to maintain the interior temperature;

06 Curtain-sided;

07 Swap body (interchangeable superstructure);

08 Container carrier;

09 Vehicles fitted with hook lift;

10 Tipper;

11 Tank;

12 Tank intended for transport of dangerous goods;

13 Livestock carrier;

14 Vehicle transporter;

15 Concrete mixer;

16 Concrete pump vehicle;

17 Timber;

18 Refuse collection vehicle;

19 Street sweeper, cleansing and drain clearing;

20 Compressor;

21 Boat carrier;

22 Glider carrier;

23 Vehicles for retail or display purposes;

24 Recovery vehicle;

25 Ladder vehicle;

26 Crane lorry (other than a mobile crane as defined in section 5 of Part A of Annex II);

27 Aerial work platform vehicle;

28 Digger derrick vehicle;

29 Low floor trailer;

30 Glazing transporter;

31 Fire engine;

99 Bodywork that is not included in the present list.

ANNEX III

INFORMATION DOCUMENT FOR THE PURPOSE OF EU TYPE-APPROVAL OF VEHICLES

PART I

The following information shall be supplied in triplicate and include a list of contents.

Any drawings shall be supplied in an appropriate scale and in sufficient detail on size A4, or on a folder of A4 format.

Photographs, if any, shall show sufficient detail.

A. **Categories M and N**

1.	GENERAL
1.1.	Make (trade name of manufacturer): …
1.2.	Type: …
1.2.1.	Commercial name(s) (if available): …
1.2.2.	For multi-stage type-approved vehicles, type-approval information of the base/previous stage vehicle (list the information for each stage. This can be done with a matrix): Type: …… Variant(s): …….. Version(s): ……... Type-approval number, including extension number ……
1.3.	Means of identification of type, if marked on the vehicle ([b]): …
1.3.1.	Location of that marking: …
1.4.	Category of vehicle ([c]): …
1.4.1.	Classification(s) according to the dangerous goods which the vehicle is intended to transport: …
1.5.	Company name and address of manufacturer: …
1.5.1.	For multi-stage type-approved vehicles, company name and address of the manufacturer of the base/previous stage(s) vehicle……
1.8.	Name(s) and address(es) of assembly plant(s): …
1.9.	Name and address of the manufacturer's representative (if any): …
2.	GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE
2.1.	Photographs and/or drawings of a representative vehicle: …

2.3. Number of axles and wheels: …

2.3.1. Number and position of axles with twin wheels: …

2.3.2. Number and position of steered axles: …

2.3.3. Powered axles (number, position, interconnection): …

2.4. Chassis (if any) (overall drawing): …

2.6. Position and arrangement of the engine: …

2.8. Hand of drive: left/right ([1])

2.8.1. Vehicle is equipped to be driven in right/left ([1]) hand traffic

2.9. Specify if the towing vehicle is intended to tow semi-trailers or other trailers and, if the trailer is a semi-, drawbar-, centre-axle- or rigid drawbar trailer: …

2.10. Specify if the vehicle is specially designed for the controlled-temperature carriage of goods: …

3. MASSES AND DIMENSIONS ([f])([g])([7])

(in kg and mm) (Refer to drawing where applicable)

3.1. **Wheelbase(s) (fully loaded) ([g1]):**

3.1.1. *Two-axle vehicles:* …

3.1.2. *Vehicles with three or more axles*

3.1.2.1. Axle spacing between consecutive axles going from the foremost to the rearmost axle: …

3.1.2.2. Total axle spacing: …

3.3.1. Track of each steered axle ([g4]): …

3.3.2. Track of all other axles ([g4]): …

3.4. **Range of vehicle dimensions** (overall)

3.4.1. *For chassis without bodywork*

3.4.1.1. Length ([g5]): …

3.4.1.1.1. Maximum permissible length: …

3.4.1.1.2. Minimum permissible length: …

3.4.1.2. Width ([g7]): …

3.4.1.2.1. Maximum permissible width: …

3.4.1.2.2. Minimum permissible width: …

3.4.1.3. Height (in running order) ([g8]) (for suspensions adjustable for height, indicate normal running position): …

3.4.2. *For chassis with bodywork*

3.4.2.1. Length ([g5]): …

3.4.2.1.1. Length of the loading area: …

3.4.2.2. Width ([g7]): …

3.4.2.2.1. Thickness of the walls (in the case of vehicles designed for controlled-temperature transport of goods): …

3.4.2.3. Height (in running order) ([g8]) (for suspensions adjustable for height, indicate normal running position): …

3.5. **Minimum mass on the steering axle(s) for incomplete vehicles:** …

3.6. **Mass in running order** ([h])

(a) minimum and maximum for each variant: …

(b) mass of each version (a matrix shall be provided where there are more than one versions within the same variant): …

3.6.1. Distribution of this mass among the axles and, in the case of a semi-trailer a rigid drawbar trailer or a centre-axle trailer, the mass on the coupling:

(a) minimum and maximum for each variant: …

(b) mass of each version (a matrix shall be provided where there are more than one versions within the same variant): …

3.6.2. Mass of the optional equipment (as defined in point (5) of Article 2 of Regulation (EU) No 1230/2012: …

3.7. **Minimum mass of the completed vehicle** as stated by the manufacturer, in the case of an incomplete vehicle: …

3.8. **Technically permissible maximum laden mass** stated by the manufacturer ([i])([3]): …

3.8.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point ([3]): …

3.9. **Technically permissible maximum mass on each axle**: …

3.10. **Technically permissible mass on each group of axles:** …

3.11. **Technically permissible maximum towable mass of the towing vehicle**

in case of:

3.11.1. Drawbar trailer: …

3.11.2. Semi-trailer: …

3.11.3. Centre-axle trailer: …

3.11.4. Rigid drawbar trailer: …

3.11.5. Technically permissible maximum laden mass of the combination ([3]): …

3.11.6. Maximum mass of unbraked trailer: …

3.12. **Technically permissible maximum mass at the coupling point:**

3.12.1. of a towing vehicle: …

3.12.2. of a semi-trailer, a centre-axle trailer or a rigid drawbar trailer: …

3.16. **Registration/in service maximum permissible masses (optional)**

3.16.1. Registration/in service maximum permissible laden mass: …

3.16.2. Registration/in service maximum permissible mass on each axle and, in the case of a semi-trailer or centre-axle trailer, intended load on the coupling point stated by the manufacturer if lower than the technically permissible maximum mass on the coupling point: …

3.16.3. Registration/in service maximum permissible mass on each group of axles: …

3.16.4. Registration/in service maximum permissible towable mass: …

3.16.5. Registration/in service maximum permissible mass of the combination: …

3.17. Vehicle submitted to multi-stage type-approval (only in the case of incomplete or completed vehicles of category N_1, within the scope of Regulation (EC) No 715/2007: yes/no ([1])

3.17.1. Mass of the base vehicle in running order: ……..……kg.

3.17.2. Default added mass (DAM), calculated in accordance with section 5 of Annex XII to Regulation (EC) No 692/2008: ……kg.

4. POWER PLANT ([k])

4.1. **Manufacturer of the engine:** …

4.1.1. Manufacturer's engine code (as marked on the engine): …

4.1.2. Approval number (if appropriate) including fuel identification marking: …

(heavy-duty vehicles only)

4.2. **Internal combustion engine**

4.2.1.1. Working principle: positive ignition/compression ignition/dual-fuel ([1])

Cycle four stroke/two stroke/rotary ([1])

4.2.1.1.1. Type of dual-fuel engine: Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])([x1])

4.2.1.1.2. Gas Energy Ratio over the hot part of the WHTC test-cycle: … %

4.2.1.2. Number and arrangement of cylinders: …

4.2.1.3. Engine capacity ([m]): …… cm^3

4.2.1.6. Normal engine idling speed ([2]): …… min^{-1}

4.2.1.6.1. High engine idling speed ([2]): …… min^{-1}

4.2.1.6.2. Idle on diesel: yes/no ([1])([x1])

4.2.1.8. Maximum net power ([n]): …… kW at …… min^{-1} (manufacturer's declared value)

4.2.1.11. (Euro VI only) Manufacturer references of the Documentation package required by Articles 5, 7 and 9 of Regulation (EU) No 582/2011 enabling the approval authority to evaluate the emission control strategies and the systems on-board the engine to ensure the correct operation of NO_x control measures

4.2.2.1. Light-duty vehicles: Diesel/Petrol/LPG/NG or Biomethane/Ethanol (E 85)/Biodiesel/Hydrogen ([1]) ([6])

4.2.2.2 Heavy duty vehicles Diesel/Petrol/LPG/NG-H/NG-L/NG-HL/Ethanol (ED95)/Ethanol (E85)/LNG/LNG_{20} ([1])([6])

4.2.2.2.1. (Euro VI only) Fuels compatible with use by the engine declared by the manufacturer in accordance with point 1.1.3 of Annex I to Regulation (EU) No 582/2011 (as applicable)

4.2.2.4. Vehicle fuel type: Mono fuel, Bi fuel, Flex fuel ([1])

4.2.2.5. Maximum amount of biofuel acceptable in fuel (manufacturer's declared value): …… % by volume

4.2.3. *Fuel tank(s)*

4.2.3.1. Service fuel tank(s)

4.2.3.1.1. Number and capacity of each tank: …

4.2.3.2. Reserve fuel tank(s)

4.2.3.2.1. Number and capacity of each tank: …

4.2.4. *Fuel feed*

4.2.4.1. By carburettor(s): yes/no ([1])

4.2.4.2. By fuel injection (compression ignition or dual-fuel only): yes/no ([1])

4.2.4.2.2. Working principle: direct injection/pre-chamber/swirl chamber ([1])

4.2.4.3. By fuel injection (positive ignition only): yes/no ([1])

4.2.7. *Cooling system:* liquid/air ([1])

4.2.8. *Intake system*

4.2.8.1. Pressure charger: yes/no ([1])

4.2.8.2. Intercooler: yes/no ([1])

4.2.8.3.3. (Euro VI only) Actual Intake system depression at rated engine speed and at 100 % load on the vehicle: … kPa

4.2.9. *Exhaust system*

4.2.9.2.1. (Euro VI only) Description and/or drawing of the elements of the exhaust system that are not part of the engine system

4.2.9.3.1. (Euro VI only) Actual exhaust back pressure at rated engine speed and at 100 % load on the vehicle (compression-ignition engines only): … kPa

4.2.9.4. Type, marking of exhaust silencer(s): …

Where relevant for exterior noise, reducing measures in the engine compartment and on the engine: …

4.2.9.5. Location of the exhaust outlet: …

4.2.9.7.1. (Euro VI only) Acceptable Exhaust system volume: … dm^3

4.2.12. *Measures taken against air pollution*

4.2.12.1.1. (Euro VI only) Device for recycling crankcase gases: yes/no ([2])

If yes, description and drawings:

If no, compliance with Annex V to Regulation (EU) No 582/2011 required

4.2.12.2. Additional pollution control devices (if any, and if not covered by another heading)

4.2.12.2.1. Catalytic converter: yes/no ([1])

4.2.12.2.1.11. Regeneration systems/method of exhaust after-treatment systems, description: …

4.2.12.2.1.11.6. Consumable reagents: yes/no ([1])

4.2.12.2.1.11.7. Type and concentration of reagent needed for catalytic action: …

4.2.12.2.2. Oxygen sensor: yes/no ([1])

4.2.12.2.3. Air injection: yes/no ([1])

4.2.12.2.4. Exhaust gas recirculation: yes/no ([1])

4.2.12.2.5. Evaporative emissions control system: yes/no ([1])

4.2.12.2.6. Particulate trap: yes/no ([1])

4.2.12.2.6.9. Other systems: yes/no ([1])

4.2.12.2.6.9.1. Description and operation

4.2.12.2.7. On-board-diagnostic (OBD) system: yes/no ([1])

4.2.12.2.7.0.1. (Euro VI only) Number of OBD engine families within the engine family

4.2.12.2.7.0.2. (Euro VI only) List of the OBD engine families (where applicable)

4.2.12.2.7.0.3. (Euro VI only) Number of the OBD engine family the parent engine / the engine member belongs to:

4.2.12.2.7.0.4. (Euro VI only) Manufacturer references of the OBD-documentation required by Article 5(4)(c) and Article 9(4) of Regulation (EU) No 582/2011 and specified in Annex X to that Regulation for the purpose of approving the OBD system

4.2.12.2.7.0.5. (Euro VI only) Where appropriate, manufacturer reference of the Documentation for installing in a vehicle an OBD equipped engine system

4.2.12.2.7.0.6. (Euro VI only) Where appropriate, manufacturer reference of the documentation package related to the installation on the vehicle of the OBD system of an approved engine

4.2.12.2.7.6.5. (Euro VI only) OBD Communication protocol standard: ([7])

4.2.12.2.7.7. (Euro VI only) Manufacturer reference of the OBD-related information required by Article 5(4)(d) and Article 9(4) of Regulation (EU) No 582/2011 for the purpose of complying with the provisions on access to vehicle OBD and vehicle repair and maintenance information, or

4.2.12.2.7.7.1. As an alternative to a manufacturer reference provided in point 4.2.12.2.7.7 reference of the attachment to the information document set out in Appendix 4 of Annex III to Regulation (EU) No 582/2011 that contains the following table, once completed according to the given example:

Component — Fault code — Monitoring strategy — Fault detection criteria — MI activation criteria — Secondary parameters — Preconditioning — Demonstration test

Catalyst — P0420 — Oxygen sensor 1 and 2 signals — Difference between sensor 1 and sensor 2 signals — 3rd cycle — Engine speed, engine load, A/F mode, catalyst temperature — Two Type 1 cycles — Type 1

4.2.12.2.7.8. (EURO VI only) OBD components on-board the vehicle

4.2.12.2.7.8.1. List of OBD components on-board the vehicle

4.2.12.2.7.8.2. Written description and/or drawing of the MI ([10])

4.2.12.2.7.8.3. Written description and/or drawing of the OBD off-board communication interface ([10])

4.2.12.2.8. Other systems (description and operation): …

4.2.12.2.8.1. (Euro VI only) Systems to ensure the correct operation of NO_x control measures

4.2.12.2.8.2. Driver inducement system

4.2.12.2.8.2.1. (Euro VI only) Engine with permanent deactivation of the driver inducement, for use by the rescue services or in vehicles specified in Article 2(3)(b): yes/no ([1])

4.2.12.2.8.3. (Euro VI only) Number of OBD engine families within the engine family considered when ensuring the correct operation of NO_x control measures

4.2.12.2.8.4. (Euro VI only) List of the OBD engine families (where applicable)

4.2.12.2.8.5. (Euro VI only) Number of the OBD engine family the parent engine / the engine member belongs to

4.2.12.2.8.6. (Euro VI only) Lowest concentration of the active ingredient present in the reagent that does not activate the warning system (CD_{min}): (% vol.)

4.2.12.2.8.7. (Euro VI only) Where appropriate, manufacturer reference of the Documentation for installing in a vehicle the systems to ensure the correct operation of NO_x control measures

4.2.12.2.8.8. Components on-board the vehicle of the systems ensuring the correct operation of NO_x control measures

4.2.12.2.8.8.1. Activation of the creep mode:

'disable after restart' / 'disable after fuelling' / 'disable after parking' ([7])

4.2.12.2.8.8.2. Where appropriate, manufacturer reference of the documentation package related to the installation on the vehicle of the system ensuring the correct operation of NO_x control measures of an approved engine

4.2.12.2.8.8.3. Written description and/or drawing of the warning signal ([6])

4.2.12.2.9. Torque limiter: yes/no ([1])

4.2.13.1. Location of the absorption coefficient symbol (compression ignition engines only): …

4.2.15. LPG fuelling system: yes/no ([1])

4.2.16. NG fuelling system: yes/no ([1])

4.2.17.8.1.0.1. (Euro VI only) Self adaptive feature? Yes/No [(1)]

4.2.17.8.1.0.2. (Euro VI only) Calibration for a specific gas composition NG-H/NG-L/NG-HL ([1])

Transformation for a specific gas composition $NG\text{-}H_t/NG\text{-}L_t/NG\text{-}HL_t$ ([1])

4.3. **Electric motor**

4.3.1. Type (winding, excitation): …

4.3.1.1. Maximum hourly output: …… kW

4.3.1.1.1. Maximum net power ([n]) … kW

(manufacturer's declared value)

4.3.1.1.2. Maximum 30 minutes power ([n]) … kW

(manufacturer's declared value)

4.3.1.2. Operating voltage: …… V

4.3.2. Battery

4.3.2.4. Position: …

4.4. **Engine or motor combination**

4.4.1. Hybrid electric vehicle: yes/no ([1])

4.4.2. Category of hybrid electric vehicle: off-vehicle charging/not off-vehicle charging: ([1])

4.5.4. *(Euro VI only) CO_2 emissions for heavy duty engines*

4.5.4.1. CO_2 mass emissions WHSC test ([x3]): … g/kWh

4.5.4.2. CO_2 mass emissions WHSC test in diesel mode ([x2]): … g/kWh

4.5.4.3. CO2 mass emissions WHSC test in dual-fuel mode ([x1]): … g/kWh

4.5.4.4. CO2 mass emissions WHTC test ([8])([x3]): … g/kWh

4.5.4.5. CO2 mass emissions WHTC test in diesel mode ([8])([x2]): … g/kWh

4.5.4.6. CO2 mass emissions WHTC test in dual-fuel mode ([8])([x1]): … g/kWh

4.5.5. *(Euro VI only) Fuel consumption for heavy duty engines*

4.5.5.1. Fuel consumption WHSC test ([x3]): … g/kWh

4.5.5.2. Fuel consumption WHSC test in diesel mode ([x2]): … g/kWh

4.5.5.3. Fuel consumption WHSC test in dual-fuel mode ([x1]): … g/kWh

4.5.5.4. Fuel consumption WHTC test ([8])([x3]): … g/kWh

4.5.5.5. Fuel consumption WHTC test in diesel mode ([8])([x2]): … g/kWh

4.5.5.6. Fuel consumption WHTC test in dual-fuel mode ([8])([x1]): … g/kWh

4.6.5. *Lubricant temperature*

Minimum: …… K
Maximum: …… K

5. TRANSMISSION ([p])

5.2. **Type** (mechanical, hydraulic, electric, etc.): …

5.5. **Gearbox**

5.5.1. *Type* (manual/automatic/CVT (continuously variable transmission)) ([1])

5.6. **Gear ratios**

Gear	Internal gearbox ratios (ratios of engine to gearbox output shaft revolutions)	Final drive ratio(s) (ratio of gearbox output shaft to driven wheel revolutions)	Total gear ratios
Maximum for CVT			
1			
2			
3			
…			
Minimum for CVT			
Reverse			

5.7. **Maximum vehicle design speed** (in km/h) ([q])

5.9. **Tachograph:** yes/no ([1])

5.9.1 *Approval mark:* …

5.11. **Gear shift indicator (GSI)**

5.11.1. Acoustic indication available yes/no ([1]). If yes, description of sound and sound level at the driver's ear in dB(A). (Acoustic indication always switchable on/off)

5.11.2. Information according to point 4.6 of Annex I to Regulation (EU) No 65/2012 (determined at type-approval)

6. AXLES

6.1. Description of each axle: …

6.2. Make: …

6.3. Type: …

6.4. Position of retractable axle(s): …

6.5. Position of loadable axle(s): …

6. SUSPENSION

6.2. Type and design of the suspension of each axle or wheel: …

6.2.1. Level adjustment: yes/no/optional ([1])

6.2.3. Air-suspension for driving axle(s): yes/no ([1])

6.2.3.1. Suspension of driving axle equivalent to air-suspension: yes/no ([1])

6.2.4. Air-suspension for non-driving axle(s): yes/no ([1])

6.2.4.1. Suspension of non-driving axle(s) equivalent to air-suspension: yes/no ([1])

6.6.1. *Tyre/wheel combination(s)*

(a) for tyres indicate size designation, load-capacity index, speed category symbol, rolling resistance in accordance with ISO 28580 (where applicable) ([r]);

(b) for wheels indicate rim size(s) and off-set(s)

7.6.1.1. Axles

7.6.1.1.1. Axle 1: …

7.6.1.1.2. Axle 2: …

etc.

7.6.1.2. Spare wheel, if any: …

7.6.2. *Upper and lower limits of rolling radii*

7.6.2.1. Axle 1: …

7.6.2.2. Axle 2: …

etc.

8. STEERING

8.2. **Transmission and control**

8.2.1. Type of steering transmission (specify for front and rear, where applicable): …

8.2.2. Linkage to wheels (including other than mechanical means; specify for front and rear, where applicable): …

8.2.3. Method of assistance, if any: …

9. BRAKES

9.5. Anti-lock braking system: yes/no/optional ([1])

9.9. Brief description of the braking equipment according to paragraph 2.6 of UNECE Regulation No 13-H: …

9.11. Particulars of the type(s) of endurance braking system(s): …

10. BODYWORK

10.1. Type of bodywork using the codes set out in Part C of Annex II: …

10.3. **Occupant doors, latches and hinges**

10.3.1. Door configuration and number of doors: …

10.9. **Devices for indirect vision**

10.9.1. Rear-view mirrors, stating, for each rear-view mirror:

10.9.1.1. Make: …

10.9.1.2. Type-approval mark: …

10.9.1.3. Variant: …

10.9.1.6. Optional equipment which may affect the rearward field of vision: …

10.9.2. Devices for indirect vision other than mirrors: …

10.9.2.1. Type and description of the device: …

10.10. **Interior arrangement**

10.10.3. *Seats*

10.10.3.1. Number of seating positions ([s]): …

10.10.3.1.1. Location and arrangement: …

10.10.3.2. Seat(s) designated for use only when the vehicle is stationary: …

10.10.4.1. Type(s) of head restraints: integrated/detachable/separate ([1])

10.10.4.2. Type-approval number(s), if available: …

10.10.8 Gas used as refrigerant in the air-conditioning system: …

10.10.8.1. The air-conditioning system is designed to contain fluorinated greenhouse gases with a global warming potential higher than 150: yes/no ([1])

10.12.2. Nature and position of supplementary restraint systems (indicate yes/no/optional):

(L = left-hand side, R = right-hand side, C = centre)				
		Front airbag	Side airbag	Belt pre-loading device
First row of seats	L			
	C			
	R			
Second row of seats (*)	L			
	C			
	R			
(*) The table may be extended as necessary for vehicles with more than two rows of seats or if there are more than three seats across the width of the vehicle.				

10.17. **Statutory plates**

10.17.1. Photographs and/or drawings of the locations of the statutory plates and inscriptions and of the vehicle identification number: …

10.17.2. Photographs and/or drawings of the statutory plate and inscriptions (completed example with dimensions): …

10.17.3. Photographs and/or drawings of the vehicle identification number (completed example with dimensions): …

10.17.4.1. The meaning of characters in the vehicle descriptor section of the VIN and, where applicable, in the vehicle indicator section of the VIN used to comply with the requirements of paragraph 5.3 of ISO Standard 3779-1983 shall be explained: …

10.17.4.2. If characters in the vehicle descriptor section of the VIN are used to comply with the requirements of paragraph 5.4 of ISO Standard 3779-1983, these characters shall be indicated: …

10.22. **Front under-run protection**

10.22.0. Presence: yes/no/incomplete ([1])

10.23. **Pedestrian protection**

10.23.1. A detailed description, including photographs and/or drawings, of the vehicle with respect to the structure, the dimensions, the relevant reference lines and the constituent materials of the frontal part of the vehicle (interior and exterior), including detail of any active protection system installed

10.24. Frontal protection systems

10.24.1. General arrangement (drawings or photographs) indicating the position and attachment of the frontal protection systems:

10.24.3. Complete details of fittings required and full instructions, including torque requirements, for fitting:

11. CONNECTIONS BETWEEN TOWING VEHICLES AND TRAILERS AND SEMI-TRAILERS

11.1. Class and type of the coupling device(s) fitted or to be fitted: …

11.3. Instructions for attachment of the coupling type to the vehicle and photographs or drawings of the fixing points at the vehicle as stated by the manufacturer; additional information, if the use of the coupling type is restricted to certain variants or versions of the type of vehicle: …

11.4. Information of the fitting of special towing brackets or mounting plates: …

11.5. Type-approval number(s): …

12. MISCELLANEOUS

12.7.1. Vehicle equipped with a 24 GHz short-range radar equipment: yes/no ([1])

13. SPECIAL PROVISIONS FOR BUSES AND COACHES

13.1. **Class of vehicle:** Class I/Class II/Class III/Class A/Class B ([1])

13.1.2. Chassis types where the type-approved bodywork can be installed (manufacturer(s), and vehicle(s) types): …

13.3. **Number of passengers** (seated and standing)

13.3.1. Total (N): …

13.3.2. Upper deck (N_a) ([1]): …

13.3.3. Lower deck (N_b) ([1]): …

13.4. **Number of passengers** (seated)

13.4.1. Total (A): …

13.4.2. Upper deck (A_a) ([1]): …

13.4.3. Lower deck (A_b) ([1]): …

13.4.4. Number of wheelchair positions for category M_2 and M_3 vehicles: …

16. ACCESS TO VEHICLE REPAIR AND MAINTENANCE INFORMATION

16.1. Address of principal website for access to vehicle repair and maintenance information: …

B. **Category O**

1. **GENERAL**

1.1. Make (trade name of manufacturer): …

1.2. Type: …

1.2.1. Commercial name(s) (if available): …

1.3. Means of identification of type, if marked on the vehicle ([b]): …

1.3.1. Location of that marking: …

1.4. Category of vehicle ([c]): …

1.4.1. Classification(s) according to the dangerous goods which the vehicle is intended to transport: …

1.5. Company name and address of manufacturer: …

1.8. Name(s) and address(es) of assembly plant(s): …

1.9. Name and address of the manufacturer's representative (if any): …

2. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE

2.1. Photographs and/or drawings of a representative vehicle: …

2.3. Number of axles and wheels: …

2.3.1. Number and position of axles with twin wheels: …

2.3.2. Number and position of steered axles: …

2.4. Chassis (if any) (overall drawing): …

2.9. Specify if the towing vehicle is intended to tow semi-trailers or other trailers and, if the trailer is a semi-, drawbar-, centre-axle- or rigid drawbar trailer: …

2.10. Specify if the vehicle is specially designed for the controlled-temperature carriage of goods: …

3. MASSES AND DIMENSIONS ([f])([g])([7])

(in kg and mm) (Refer to drawing where applicable)

3.1. **Wheelbase(s) (fully loaded)** ([g1]):

3.1.1. *Two-axle vehicles*: …

3.1.2. *Vehicles with three or more axles*

3.1.2.1. Axle spacing between consecutive axles going from the foremost to the rearmost axle: …

3.1.2.2. Total axle spacing: …

3.3.1. Track of each steered axle ([g4]): …

3.3.2. Track of all other axles ([g4]): …

3.4. **Range of vehicle dimensions** (overall)

3.4.1. *For chassis without bodywork*

3.4.1.1. Length ([g5]): …

3.4.1.1.1. Maximum permissible length: …

3.4.1.1.2. Minimum permissible length: …

3.4.1.1.3. In the case of trailers, maximum permissible drawbar length ([g6]): …

3.4.1.2. Width ([g7]): …

3.4.1.2.1. Maximum permissible width: …

3.4.1.2.2. Minimum permissible width: …

3.4.2. *For chassis with bodywork*

3.4.2.1. Length ([g5]): …

3.4.2.1.1. Length of the loading area: …

3.4.2.1.2. In the case of trailers, maximum permissible drawbar length ([g6]): …

3.4.2.2. Width ([g7]): …

3.4.2.2.1. Thickness of the walls (in the case of vehicles designed for controlled-temperature transport of goods): …

3.4.2.3. Height (in running order) ([g8]) (for suspension adjustable for height, indicate normal running position): …

3.6. **Mass in running order ([h])**

(a) minimum and maximum for each variant: …

(b) mass of each version (a matrix must be provided): …

3.6.1. Distribution of this mass among the axles and, in the case of a semi-trailer a rigid drawbar trailer or a centre-axle trailer, the mass on the coupling: …

(a) minimum and maximum for each variant: …

(b) mass of each version (a matrix must be provided): …

3.6.2. Mass of the optional equipment (as defined in point (5) of Article 2 of Regulation (EU) No 1230/2012: …

3.7. **Minimum mass of the completed vehicle** as stated by the manufacturer, in the case of an incomplete vehicle: …

3.8. **Technically permissible maximum laden mass** stated by the manufacturer ([i])([3]): …

3.8.1. Distribution of this mass among the axles, and in the case of a semi-trailer or centre-axle trailer, load on the coupling point ([3]): …

3.9. **Technically permissible maximum mass on each axle**: …

3.10. **Technically permissible mass on each group of axles:** …

3.12. **Technically permissible maximum mass at the coupling point:**

3.12.2. Of a semi-trailer, a centre-axle trailer or a rigid drawbar trailer: …

3.16. **Registration/in service maximum permissible masses (optional)**

3.16.1. Registration/in service maximum permissible laden mass: …

3.16.2. Registration/in service maximum permissible mass on each axle and, in the case of a semi-trailer or centre-axle trailer, intended load on the coupling point stated by the manufacturer if lower than the technically permissible maximum mass on the coupling point: …

3.16.3. Registration/in service maximum permissible mass on each group of axles: …

3.16.4. Intended registration/in service maximum permissible towable mass (several entries possible for each technical configuration ([5])): …

4. TRANSMISSION

4.7. Maximum vehicle design speed (in km/h) ([q])

5. AXLES

5.1. Description of each axle: …

5.2. Make: …

5.3. Type: …

5.4. Position of retractable axle(s): …

5.5. Position of loadable axle(s): …

6. SUSPENSION

6.2. Type and design of the suspension of each axle or wheel: …

6.2.1. Level adjustment: yes/no/optional ([1])

6.2.4. Air-suspension for non-driving axle(s): yes/no ([1])

6.2.4.1. Suspension of non-driving axle(s) equivalent to air-suspension: yes/no ([1])

6.6.1. *Tyre/wheel combination(s)*

(a) for tyres indicate size designation, load-capacity index, speed category symbol, rolling resistance in accordance with ISO 28580 (where applicable) ([r]);

(b) for wheels indicate rim size(s) and off-set(s)

6.6.1.1. Axles

6.6.1.1.1. Axle 1: …

6.6.1.1.2. Axle 2: …

etc.

6.6.1.2. Spare wheel, if any: …

6.6.2. *Upper and lower limit of rolling radii*

6.6.2.1. Axle 1: …

6.6.2.2. Axle 2: …

etc.

7. STEERING

7.2. **Transmission and control**

7.2.1. Type of steering transmission (specify for front and rear, where applicable): …

7.2.2. Linkage to the wheels (including other than mechanical means; specify for front and rear, where applicable): …

7.2.3. Method of assistance, if any: …

8. BRAKES

8.5. Antilock braking system: yes/no/optional ([1])

8.9. Brief description of the braking equipment, according to paragraph 2.6 of UNECE Regulation 13-H: …

9. BODYWORK

9.1. Type of bodywork using the codes defined in Part C of Annex II: …

9.17. **Statutory plates**

9.17.1. Photographs and/or drawings of the locations of the statutory plates and inscriptions and of the vehicle identification number: …

9.17.2. Photographs and/or drawings of the statutory plate and inscriptions (completed example with dimensions): …

9.17.3. Photographs and/or drawings of the vehicle identification number (completed example with dimensions): …

9.17.4.1. The meaning of characters in the vehicle descriptor section of the VIN and, where applicable, in the vehicle indicator section of the VIN used to comply with the requirements of paragraph 5.3 of ISO Standard 3779-1983 shall be explained: …

9.17.4.2. If characters in the vehicle descriptor section of the VIN are used to comply with the requirements of paragraph 5.4 of ISO Standard 3779-1983 these characters shall be indicated: …

11. CONNECTIONS BETWEEN TOWING VEHICLES AND TRAILERS AND SEMI-TRAILERS

11.1. Class and type of the coupling device(s) fitted or to be fitted: …

11.5. Type-approval number(s): …

PART II

Matrix showing the combinations of the entries listed in Part I within the versions and variants of the type of vehicle

Item No	All	Version 1	Version 2	Version 3	Version n

Explanatory notes

(a) A separate matrix shall be compiled for each variant within the type.

(b) Entries for which there are no restrictions on their combination within a variant shall be listed in the column headed 'all'.

(c) The information to be provided in accordance with Part II may be presented in an alternative layout or merged with the information provided in accordance with Part I.

(d) Each variant and each version shall be identified by an alphanumerical code consisting of a combination of letters and numbers, which shall also be indicated in the certificate of conformity (Annex IX) of the vehicle concerned.

(e) Variant(s) which fall(s) under Annex IV, Part III shall be identified by a specific alphanumerical code.

PART III

Type-approval numbers

Information required by Article 22 to be provided in the following table in respect of the type-approvals of systems, separate technical units and components for this vehicle granted in accordance with the regulatory acts in Annex IV. (All relevant approvals for each system, separate technical unit and component shall be included. However, information in respect of components need not be given here so long as such information is included in the approval certificate relating to the installation requirements).

Subject	Type-approval number or test report number (***)	Member State or Contracting Party (*) issuing the type-approval (**) or test report (***)	Extension date	Variant(s)/version(s)

(*) Contracting Parties to the Revised 1958 Agreement.

(**) To be indicated if not obtainable from the type-approval number.

(***) To be indicated when the manufacturer applies the provisions of Article 40(1). In such a case, the relevant regulatory act shall be specified in the second column.

Signed: …

Position in company: …

Date: …

ANNEX IV

REQUIREMENTS FOR THE PURPOSE OF EU TYPE-APPROVAL OF VEHICLES, SYSTEMS, COMPONENTS OR SEPARATE TECHNICAL UNITS

PART I

Regulatory acts for EU type-approval of vehicles produced in unlimited series

Item	Subject	Regulatory act	Applicability										
			M_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4	STU or component
1A	Sound level	Regulation (EU) No 540/2014 of the European Parliament and of the Council[15]	X	X	X	X	X	X					X
2A	Emissions (Euro 5 and 6) light duty vehicles/access to information	Regulation (EC) No 715/2007	X([1])	X([1])		X([1])	X([1])						X
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	X	X	X	X	X	X	X	X	X	X	
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58	X	X	X	X	X	X	X	X	X	X	X
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Commission Regulation (EU) No 1003/2010[16]	X	X	X	X	X	X	X	X	X	X	

[15] Regulation (EU) No 540/2014 of the European Parliament and of the Council of 16 April 2014 on the sound level of motor vehicles and of replacement silencing systems, and amending Directive 2007/46/EC and repealing Directive 70/157/EEC (OJ L 158, 27.5.2014, p. 131).

[16] Commission Regulation (EU) No 1003/2010 of 8 November 2010 concerning type-approval requirements for the space for mounting and the fixing of rear registration plates on motor vehicles and their trailers and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 291, 9.11.2010, p. 22).

5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79	X	X	X	X	X	X	X	X	X	X	
6A	Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012[17]	X			X	X	X					
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11	X			X							
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	X	X	X	X	X	X					X
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	X	X	X	X	X	X					X
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13		X([3])	X([3])	X([3])	X([3])	X([3])	X([3])	X([3])	X([3])	X([3])	
9B	Braking of passenger cars	Regulation (EC) No 661/2009 UNECE Regulation No 13-H	X([4])			X([4])							
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10	X	X	X	X	X	X	X	X	X	X	X
12A	Interior fittings	Regulation (EC) No 661/2009 UNECE Regulation No 21	X										
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 18		X([4A])	X([4A])		X([4A])	X([4A])					X

[17] Commission Regulation (EU) No 130/2012 of 15 February 2012 concerning type-approval requirements for motor vehicles with regard to vehicle access and manoeuvrability and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 43, 16.2.2012, p. 6).

13B	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 116	X			X							X
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UNECE Regulation No 12	X			X							
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17	X	X([4B])	X([4B])	X	X	X					
15B	Seats of large passenger vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 80		X	X								
16A	External projections	Regulation (EC) No 661/2009 UNECE Regulation No 26	X										X
17A	Vehicle access and manoeuvrability (reverse gear)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	X	X	X	X	X					
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39	X	X	X	X	X	X					
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X	X	X	X	X	X	X	X	X	X	
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14	X	X	X	X	X	X					
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48	X	X	X	X	X	X	X	X	X	X	

21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3	X	X	X	X	X	X	X	X	X	X	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7	X	X	X	X	X	X	X	X	X	X	X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87	X	X	X	X	X	X					X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91	X	X	X	X	X	X	X	X	X	X	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 6	X	X	X	X	X	X	X	X	X	X	X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 4	X	X	X	X	X	X	X	X	X	X	X
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31	X	X	X	X	X	X					X
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37	X	X	X	X	X	X	X	X	X	X	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98	X	X	X	X	X	X					X

25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99	X	X	X	X	X	X					X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112	X	X	X	X	X	X					X
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123	X	X	X	X	X	X					X
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19	X	X	X	X	X	X					X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	X	X	X	X	X	X					
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 38	X	X	X	X	X	X	X	X	X	X	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23	X	X	X	X	X	X	X	X	X	X	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 77	X	X	X	X	X	X					
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	X	X	X	X	X	X					X

32A	Forward field of vision	Regulation (EC) No 661/2009 UNECE Regulation No 125	X										
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121	X	X	X	X	X	X					
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Commission Regulation (EU) No 672/2010[18]	X	(5)	(5)	(5)	(5)	(5)					
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Commission Regulation (EU) No 1008/2010[19]	X	(6)	(6)	(6)	(6)	(6)					X
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122	X	X	X	X	X	X	X	X	X	X	X
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010	X										
38A	Head restraints (headrests), whether or not incorporated in vehicle seats	Regulation (EC) No 661/2009 UNECE Regulation No 25	X										
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009	X(9)	X(9)	X	X(9)	X(9)	X					X
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 73					X	X			X	X	X

[18] Commission Regulation (EU) No 672/2010 of 27 July 2010 concerning type-approval requirements for windscreen defrosting and demisting systems of certain motor vehicles and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 196, 28.7.2010, p. 5).

[19] Commission Regulation (EU) No 1008/2010 of 9 November 2010 concerning type-approval requirements for windscreen wiper and washer systems of certain motor vehicles and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 292, 10.11.2010, p. 2).

43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011				X	X	X	X	X	X	X	X
44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	X										
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	X	X	X	X	X	X	X	X	X	X	X
46	Tyres	Directive 92/23/EEC[20]	X	X	X	X	X	X	X	X	X	X	X
46A	Installation of tyres	Regulation (EC) No 661/2009 Commission Regulation (EU) No 458/2011[21]	X	X	X	X	X	X	X	X	X	X	
46B	Pneumatic tyres for motor vehicles and their trailers (Class C1)	Regulation (EC) No 661/2009 UNECE Regulation No 30	X			X			X	X			X
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 54		X	X	X	X	X			X	X	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	X	X	X	X	X	X	X	X	X	X	X
46E	Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UNECE Regulation No 64	X([9A])			X([9A])							X

[20] Council directive 92/23/EEC of 31 March 1992 relating to tyres for motor vehicles and their trailers and to their fitting (OJ L 129, 14.5.1992, p. 95).

[21] Commission Regulation (EU) No 458/2011 of 12 May 2011 concerning type-approval requirements for motor vehicles and their trailers with regard to the installation of their tyres and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 124, 13.5.2011, p. 11).

47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 89		X	X		X	X					X
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012		X	X	X	X	X	X	X	X	X	
49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UNECE Regulation No 61				X	X	X					
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	X([10])	X([10])	X([10])	X([10])	X([10])	X([10])	X	X	X	X	X
50B	Close-coupling device (CCD); fitting of an approved type of CCD	Regulation (EC) No 661/2009 UNECE Regulation No 102					X([10])	X([10])			X([10])	X([10])	X
51A	Burning behaviour of materials used in the interior construction of certain categories of motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 118			X								
52A	M_2 and M_3 vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 107		X	X								
52B	Strength of the superstructure of large passenger vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 66		X	X								
53A	Protection of occupants in the event of a frontal collision	Regulation (EC) No 661/2009 UNECE Regulation No 94	X([11])										
54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UNECE Regulation No 95	X([12])			X([12])							
55	(empty)												

56A	Vehicles for the carriage of dangerous goods	Regulation (EC) No 661/2009 UNECE Regulation No 105				X([13])	X([13])	X([13])	X([13])	X([13])	X([13])	X([13])	
57A	Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	Regulation (EC) No 661/2009 UNECE Regulation No 93					X	X					X
58	Pedestrian protection	Regulation (EC) No 78/2009 of the European Parliament and of the Council[22]	X			X							X
59	Recyclability	Directive 2005/64/EC of the European Parliament and of the Council[23]	X			X		-					
60	(empty)												
61	Air-conditioning systems	Directive 2006/40/EC of the European Parliament and of the Council[24]	X			X([14])							
62	Hydrogen system	Regulation (EC) No 79/2009	X	X	X	X	X	X					
63	General Safety	Regulation (EC) No 661/2009	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	

[22] Regulation (EC) No 78/2009 of the European Parliament and of the Council of 14 January 2009 on the type-approval of motor vehicles with regard to the protection of pedestrians and other vulnerable road users, amending Directive 2007/46/EC and repealing Directives 2003/102/EC and 2005/66/EC (OJ L 035, 4.2.2009, p.1).

[23] Directive 2005/64/EC of the European Parliament and of the Council of 26 October 2005 on the type-approval of motor vehicles with regard to their reusability, recyclability and recoverability and amending Council Directive 70/156/EEC (OJ L 310, 25.11.2005, p. 10).

[24] Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air conditioning systems in motor vehicles and amending Council Directive 70/156/EEC (OJ L 161, 14.6.2006, p. 12).

64	Gear shift indicators	Regulation (EC) No 661/2009 Regulation (EU) No 65/2012	X										
65	Advanced emergency braking system	Regulation (EC) No 661/2009 Commission Regulation (EU) No 347/2012[25]		X	X		X	X					
66	Lane departure warning system	Regulation (EC) No 661/2009 Commission Regulation (EU) No 351/2012[26]		X	X		X	X					
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	X	X	X	X	X	X					X
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UNECE Regulation No 97	X			X							X
69	Electric safety	Regulation (EC) No 661/2009 UNECE Regulation No 100	X	X	X	X	X	X					
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	X	X	X	X	X	X					X
71	Cab strength	Regulation (EC) No 661/2009 UNECE Regulation No 29				X	X	X					

[25] Commission Regulation (EU) No 347/2012 of 16 April 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with respect to type-approval requirements for certain categories of motor vehicles with regard to advanced emergency braking systems (OJ L 109, 21.4.2012, p. 1).

[26] Commission Regulation (EU) No 351/2012 of 23 April 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council as regards type-approval requirements for the installation of lane departure warning systems in motor vehicles (OJ L 110, 24.4.2012, p. 18).

Explanatory notes	
X Relevant regulatory act.	
([1]) For vehicles with a reference mass not exceeding 2 610 kg. At the manufacturer's request, Regulation (EC) No 715/2007 may apply to vehicles with a reference mass not exceeding 2 840 kg.	
([2]) In case of vehicles equipped with a LPG or CNG installation, a vehicle type-approval in accordance with UNECE Regulation No 67 or UNECE Regulation No 110 is required.	
([3]) The fitting of an electronic stability control ('ESC') system is required in accordance with Article 12 and Article 13 of Regulation (EC) No 661/2009.	
([4]) The fitting of an ESC system is required in accordance with Article 12 and Article 13 of Regulation (EC) No 661/2009.	
([4A]) If fitted, the protective device shall fulfil the requirements of UNECE Regulation No 18.	
([4B]) This Regulation applies to seats not falling within the scope of UNECE Regulation No 80.	
([9]) For vehicles with a reference mass exceeding 2 610 kg which are not type-approved (at the manufacturer's request and provided their reference mass does not exceed 2 840 kg) under Regulation (EC) No 715/2007.	
([9A]) Applies only where such vehicles are fitted with equipment covered by UNECE Regulation No 64. Tyre pressure monitoring system for M1 vehicles applies on a compulsory basis in accordance with Article 9(2) of Regulation (EC) No 661/2009.	
([10]) Applies only to vehicles equipped with coupling(s).	
([11]) Applies to vehicles with a technically permissible maximum laden mass not exceeding 2,5 tonnes.	
([12]) Only applicable to vehicles where the 'Seating Reference Point ("R" point)' of the lowest seat is not more than 700 mm above the ground level.	
([13]) Applies only when the manufacturer applies for type-approval of vehicles intended for the transport of dangerous goods.	
([14]) Applies only for vehicles of category N_1, class I as described in Annex I to Regulation (EC) No 715/2007.	
([15]) Compliance with Regulation (EC) No 661/2009 is mandatory, however, type-approval under this item number is not foreseen as it represents the collection of individual items 3A, 3B, 4A, 5A, 6A, 6B, 7A, 8A, 9A, 9B, 10A, 12A, 13A, 13B, 14A, 15A, 15B, 16A, 17A, 17B, 18A, 19A, 20A, 21A, 22A, 22B, 22C, 23A, 24A, 25A, 25B, 25C, 25D, 25E, 25F, 26A, 27A, 28A, 29A, 30A, 31A, 32A, 33A, 34A, 35A, 36A, 37A, 38A, 42A, 43A, 44A, 45A, 46A, 46B, 46C, 46D, 46E, 47A, 48A, 49A, 50A, 50B, 51A, 52A, 52B, 53A, 54A, 56A, 57A and 64 to 71. The series of amendments of the UNECE regulations which apply on a compulsory basis are listed in Annex IV to Regulation (EC) No 661/2009. The series of amendments adopted subsequently are accepted as an alternative.	

Appendix 1

Regulatory acts for EU type-approval of vehicles produced in small series pursuant to Article 39

Table 1

M_1 vehicles

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
1	Sound level	Directive 70/157/EEC		A
1A	Sound level	Regulation (EU) No 540/2014		A
2	Emissions (Euro 5 and 6) light duty vehicles/access to information	Regulation (EC) No 715/2007		A
			(a) On-board diagnostic (OBD)	The vehicle shall be fitted with an OBD system that fulfils the requirements of Article 4(1) and (2) of Regulation (EC) No 692/2008 (The OBD system shall be designed to record at least the malfunction of the engine management system). The OBD-interface shall be able to communicate with commonly available diagnostic tools.
			(b) In service conformity	N/A
			(c) Access to information	It is sufficient that the manufacturer provide access to repair and maintenance information in a readily accessible and prompt manner.
			(d) Power measurement	*(When the vehicle manufacturer uses an engine from another manufacturer)* Bench test data from the engine manufacturer are accepted provided that the engine management system is identical (i.e. having at least the same electronic control unit (ECU)). Power output test may be performed on a chassis dynamometer. It shall be taken into account of the power loss in the transmission.

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	(a) Liquid fuel tanks	B
			(b) Installation in vehicle	B
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58		B
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010		B
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79		C
			(a) Mechanical systems	The provisions of paragraph 5 of UNECE Regulation No 79 shall apply. All tests prescribed in paragraph 6.2 of UNECE Regulation No 79 shall be performed and the requirements of paragraph 6.1 of UNECE Regulation No 79 shall apply.
			(b) Complex electronic vehicle control system	All the requirements of Annex 6 of UNECE Regulation No 79 shall apply. Compliance with these requirements may only be checked by a technical service.
6A	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11		C
			(a) General requirements (Paragraph 5 of UNECE Regulation No 11)	All the requirements shall apply.
			(b) Performance requirements (Paragraph 6 of UNECE Regulation No 11)	Only the requirements of paragraph 6.1.5.4 and paragraph 6.3 of UNECE Regulation No 11 shall apply.
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	(a) Components	X
			(b) Installation on vehicle	B

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	(a) Components	X
			(b) Installation on vehicle	B
9B	Braking	Regulation (EC) No 661/2009 UNECE Regulation No 13-H	(a) Design and tests requirements	A
			(b) Electronic stability control (ESC) and brake assist systems(BAS)	The fitting of BAS and ESC shall not be required. If fitted, they shall comply with the requirements of UNECE Regulation No 13-H.
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10		B
12A	Interior fittings	Regulation (EC) No 661/2009 UNECE Regulation No 21		C
			(a) Interior arrangement	
			(i) Radii and protrusion requirements for switches, pull-knobs and the like, controls and general interior fittings	The requirements of paragraphs 5.1 to 5.6 of UNECE Regulation No 21 may be waived at the request of the manufacturer. The requirements of paragraph 5.2 of UNECE Regulation No 21 with the exception of paragraphs 5.2.3.1, 5.2.3.2 and 5.2.4 of that Regulation shall apply.
			(ii) Energy absorption tests on the upper dashboard	Energy absorption tests on the upper dashboard shall only be performed when the vehicle is not fitted with at least two front airbags or two static four-point harnesses.
			(iii) Energy absorption test on the rear part of the seats	N/A
			(b) Power-operation of windows, roof-panel systems and partition systems	All requirements of paragraph 5.8 of UNECE Regulation No 21 shall apply.

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 116		A The provisions of paragraph 8.3.1.1.1. of UNECE Regulation No 116 may be applied instead of paragraph 8.3.1.1.2. of that Regulation regardless of the type of powertrain
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UNECE Regulation No 12		C
				Tests are required when the vehicle has not been tested under UNECE Regulation No 94 (see item 53A)
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17		C
			(a) General requirements (i) Specifications	Requirements of paragraph 5.2 of UNECE Regulation No 17 shall apply with the exception of paragraph 5.2.3 of that Regulation.
			(ii) Strength tests for seat backrest and head restraints	The requirements of paragraph 6.2 UNECE Regulation No 17 shall apply.
			(iii) Unlocking and adjustment tests	The test shall be performed in accordance with the requirements of Annex 7 to UNECE Regulation No 17.
			(b) Head restraints (i) Specifications	Requirements of paragraphs 5.4, 5.5, 5.6, 5.10, 5.11 and 5.12 of UNECE Regulation No 17 shall apply with the exception of paragraph 5.5.2 of that Regulation.
			(ii) Strength tests on head restraints	The test prescribed in paragraph 6.4 of UNECE Regulation No 17 shall be performed.
			(c) Special requirements regarding the protection of occupants from displaced luggage	The requirements of Annex 9 to UNECE Regulation No 26 may be waived at the request of the manufacturer.
16A	External projections	Regulation (EC) No 661/2009 UNECE Regulation No 26		C
			(a) General specifications	The requirements of paragraph 5 of UNECE Regulation No 26 shall apply.
			(b) Particular specifications	The requirements of paragraph 6 of UNECE Regulation No 26 shall apply.
17A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009		D

		Regulation (EU) No 130/2012		
Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39		B
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011		B
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14		B
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48		B Daytime Running Lights (DRL) shall be fitted to a new type of vehicle.
21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3		X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7		X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87		X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91		X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 6		X
24A	Illumination of rear-registration plates of power-driven vehicles and their	Regulation (EC) No 661/2009 UNECE Regulation No 4		X

	trailers			

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31		X
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37		X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98		X
25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99		X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112		X
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123		X
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19		X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010		B
28A	Rear fog lamps for power-driven vehicles and their	Regulation (EC) No 661/2009 UNECE Regulation		X

	trailers	No 38		

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23		X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 77		X
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	(a) Components	X
			(b) Installation requirements	B
32A	Forward field of vision	Regulation (EC) No 661/2009 UNECE Regulation No 125		A
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121		A
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010		C
			(a) Windscreen defrosting	Only point 1.1.1 of Annex II to Regulation (EU) No 672/2010 shall apply, provided that warm air flow is ducted to the whole surface of the windscreen or the latter is electrically heated on its whole surface.
			(b) Windscreen demisting	Only point 1.2.1 of Annex II to Regulation (EU) No 672/2010 shall apply, provided that warm air flow is ducted to the whole surface of the windscreen or the latter is electrically heated on its whole surface.
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010		C
			(a) Windscreen wiper system	Points 1.1 to 1.1.10 of Annex III to Regulation (EU) No 1008/2010 shall apply. Only the test described in point 2.1.10 of Annex III to Regulation (EU) No 1008/2010 shall be performed.
			(b) Windscreen	Point 1.2 of Annex III to Regulation

			washer system	(EU) No 1008/2010 shall apply with the exception of points 1.2.2, 1.2.3 and 1.2.5.

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
36A	Heating system	Regulation (EC) No 661/2009 UNECE Regulation No 122		C The fitting of a heating system shall not be required.
			(a) All heating systems	The requirements of paragraphs 5.3 and 6 of UNECE Regulation No 122 shall apply.
			(b) LPG heating systems	The requirements of Annex 8 to UNECE Regulation No 122 shall apply.
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010		B
38A	Head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 25		X
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009		A With the exception of the set of requirements relating to OBDs and access to information.
			Power measurement	*(When the vehicle manufacturer uses an engine from another manufacturer)* Bench test data from the engine manufacturer are accepted, provided that the engine management system is identical (i.e. having at least the same ECU). Power output test may be performed on a chassis dynamometer. It shall be taken into account of the power loss in the transmission.
44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012		B The hill start test at maximum combination mass described in point 5.1 of Part A of Annex I to Regulation (EU) No 1230/2012 may be waived at the request of the manufacturer.
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	(a) Components	X
			(b) Installation	B
46	Tyres	Directive 92/23/EEC	Components	X

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011		B Dates for progressive application shall be those set out in Article 13 of Regulation (EC) No 661/2009.
46B	Pneumatic tyres for motor vehicles and their trailers (Class C1)	Regulation (EC) No 661/2009 UNECE Regulation No 30	Components	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	Components	X
46E	Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UNECE Regulation No 64	Components	X
			Fitting of a tyre-pressure monitoring system (TPMS)	B The fitting of a TPMS shall not be required.
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	(a) Components	X
			(b) Installation	B
53A	Protection of occupants in the event of a frontal collision	Regulation (EC) No 661/2009 UNECE Regulation No 94		C The requirements of UNECE Regulation No 94 shall apply to vehicles fitted with front airbags. Vehicles not fitted with airbags shall fulfil the requirement of item 14A of this table.
54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UNECE Regulation No 95		C
			Head form test	The manufacturer shall supply the technical service with suitable information concerning a possible impact of the head of the dummy against the structure of the vehicle or the side glazing if made up of laminated glazing. When it is proven that such impact is likely to happen, the partial test using the head form test described in paragraph 3.1 of Annex 8 to UNECE Regulation No 95 shall be conducted and the criterion specified in paragraph 5.2.1.1 of UNECE Regulation No 95 shall be met. In agreement with the technical service, the test procedure described in Annex 4 to UNECE Regulation No 21 may be used as an alternative to the test of

				UNECE Regulation No 95.

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
58	Pedestrian protection	Regulation (EC) No 78/2009	(a) Technical requirements applicable to vehicle	N/A
			(b) Frontal protection systems	X
59	Recyclability	Directive 2005/64/EC		N/A - Only Article 7 on reuse of component parts shall apply.
61	Air-conditioning systems	Directive 2006/40/EC		A Fluorinated greenhouse gases with a global warming potential higher than 150 are permitted until 31 December 2016.
62	Hydrogen system	Regulation (EC) No 79/2009		X
63	General Safety	Regulation (EC) No 661/2009		See explanatory note ([15]) of the table in Part I of Annex IV with regulatory acts for EU type-approval of vehicles produced in unlimited series.
64	Gear shift indicators	Regulation (EC) No 661/2009 Regulation (EU) No 65/2012		N/A
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	(a) Components	X
			(b) Installation	A
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UNECE Regulation No 97	(a) Components	X
			(b) Installation	B
69	Electric safety	Regulation (EC) No 661/2009 UNECE Regulation No 100		B
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	(a) Components	X
			(b) Installation	A

Explanatory notes	
X	Full application of the regulatory act as follows: (a) a type-approval certificate shall be issued; (b) tests and checks shall be conducted by the technical service or the manufacturer under the conditions laid down in Articles 71 to 85; (c) a test report shall be drafted in accordance with the provisions of Annex V; (d) Conformity of Production (COP) shall be ensured.
A	Application of the regulatory act as follows: (a) all requirements of the regulatory act shall be fulfilled unless otherwise stated; (b) no type-approval certificate shall be required; (c) tests and checks shall be conducted by the technical service or the manufacturer under the conditions laid down in Articles 71 to 85; (d) a test report shall be drafted in accordance with the provisions of Annex V; (e) COP shall be ensured.
B	Application of the regulatory act as follows: Same as for letter 'A' with the exception that the tests and checks may be performed by the manufacturer himself, subject to the agreement of the approval authority.
C	Application of the regulatory act as follows: (a) only the technical requirements from the regulatory shall be fulfilled, irrespective of any transitional provision; (b) no type-approval certificate shall be required; (c) tests and checks shall be conducted by the technical service or by the manufacturer (see decisions for letter 'B'); (d) a test report shall be drafted in accordance with the provisions of Annex V; (e) COP shall be ensured.
D	Same as for decisions in letters 'B' and 'C', with the exception that a statement of compliance submitted by the manufacturer is sufficient. No test report shall be required. The approval authority or technical service may require additional information of further evidence, if need be.
N/A	The regulatory act shall not apply. Compliance with one or more specific aspects included in the regulatory act may however be imposed.
The series of amendments of the UNECE Regulations to be used are listed in Annex IV to Regulation	

(EC) No 661/2009. The series of amendments adopted subsequently are accepted as an alternative.

Table 2

N_1 vehicles [27]

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
1A	Sound level	Regulation (EU) No 540/2014		A
2	Emissions (Euro 5 and 6) light duty vehicles/access to information	Regulation (EC) No 715/2007		A
			(a) OBD	The vehicle shall be fitted with an OBD system that fulfils the requirements of Article 4(1) and (2) of Regulation (EC) No 692/2008 (the OBD system shall be designed to record at least the malfunction of the engine management system). The OBD-interface shall be able to communicate with commonly available diagnostic tools.
			(b) In service conformity	N/A
			(c) Access to information	It is sufficient that the manufacturer provides access to vehicle repair and maintenance information in a readily accessible and prompt manner.
			(d) Power measurement	*(When the vehicle manufacturer uses an engine from another manufacturer)* Bench test data from the engine manufacturer are accepted provided that the engine management system is identical (i.e. having at least the same ECU). Power output test may be performed on a chassis dynamometer. It shall be taken into account of the power loss in the transmission.
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	(a) Liquid fuel tanks	B
			(b) Installation in vehicle	B
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58		B
4A	Space for mounting and fixing rear	Regulation (EC) No 661/2009		B

[27] The explanatory notes relating to Part I of Annex IV also apply to Table 2. The letters in table 2 have the same meaning as in Table 1.

	registration plates	Regulation (EU) No 1003/2010		

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79		C
			(a) Mechanical systems	The provisions of paragraph 5 of UNECE Regulation No 79.01 shall apply. All tests prescribed in paragraph 6.2 of UNECE Regulation No 79 shall be performed and the requirements of paragraph 6.1 of UNECE Regulation No 79 shall apply.
			(b) Complex electronic vehicle control system	All the requirements of Annex 6 of UNECE Regulation No 79 shall apply. Compliance with these requirements may only be checked by a technical service.
6A	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11		C
			(a) General requirements (Paragraph 5 of UNECE Regulation No 11)	All requirements shall apply.
			(b) Performance requirements (Paragraph 6 of UNECE Regulation No 11)	Only the requirements of paragraph 6.1.5.4 and paragraph 6.3 of UNECE Regulation No 11 shall apply.
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	(a) Components	X
			(b) Installation on vehicle	B
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	(a) Components	X
			(b) Installation on vehicle	B
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13.	(a) design and test requirements	A
			(b) ESC	The fitting of ESC shall not be required. If fitted, it shall comply with the requirements of UNECE Regulation No 13.

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
9B	Braking of passenger cars	Regulation (EC) No 661/2009 UNECE Regulation No 13-H	(a) Design and test requirements	A
			(b) Electronic stability control (ESC) and brake assist systems(BAS)	The fitting of BAS and ESC shall not be required. If fitted, they shall comply with the requirements of UNECE Regulation No 13-H.
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10		B
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 116		A The provisions of paragraph 8.3.1.1.1. of UNECE Regulation No 116 may be applied instead of paragraph 8.3.1.1.2. of that Regulation regardless of the type of powertrain
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UNECE Regulation No 12		C
			(a) Barrier impact test	A test shall be required.
			(b) Body block impact test against steering wheel	Not required if the steering wheel is fitted with an airbag.
			(c) Head form test	Not required if the steering wheel is fitted with an airbag.
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17		B
17A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012		D
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39		B
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011		B

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14		B
20A	Installation of lighting and light-signalling devices on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48		B DRLs shall be fitted to a new type of vehicle.
21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3		X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7		X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87		X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91		X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 6		X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 4		X
25A	Power-driven vehicle’s sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31		X

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37		X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98		X
25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99		X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112		X
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123		X
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19		X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010		B
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 38		X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23		X
30A	Parking lamps for	Regulation (EC)		X

	power-driven vehicles	No 661/2009 UNECE Regulation No 77		

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	(a) Components	X
			(b) Installation requirements	B
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121		A
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010		N/A The vehicle shall be fitted with a suitable windscreen defrosting and demisting system.
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010		N/A The vehicle shall be fitted with a suitable windscreen wiper and washer system.
36A	Heating system	Regulation (EC) No 661/2009 UNECE Regulation No 122		C The fitting of a heating system shall not be required.
			(a) All heating systems	The requirements of paragraphs 5.3 and 6 of UNECE Regulation No 122 shall apply.
			(b) LPG heating systems	The requirements of Annex 8 to UNECE Regulation No 122 shall apply.
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009		A With the exception of the set of requirements relating to OBDs and access to information.
			Power measurement	*(When the vehicle manufacturer uses an engine from another manufacturer)* Bench test data from the engine manufacturer are accepted provided that the engine management system is identical (i.e. having at least the same ECU). Power output test may be performed on a chassis dynamometer. It shall be taken into account of the power loss in the transmission.

43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011		B

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	(a) Components	X
			(b) Installation	B
46	Tyres	Directive 92/23/EEC	Components	X
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011		B Dates for progressive application shall be those set out in Article 13 of Regulation (EC) No 661/2009.
46B	Pneumatic tyres for motor vehicles and their trailers (Class C1)	Regulation (EC) No 661/2009 UNECE Regulation No 30	Components	X
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 54	Components	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	Components	X
46E	Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UNECE Regulation No 64	Components	X
			Fitting of a tyre-pressure monitoring system	B The fitting of a TPMS shall not be required
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012		B
			Hill start test at maximum combination mass	The hill start test at maximum combination mass described in point 5.1 of Part A of Annex 1 to Regulation (EU) No 1230/2012 may be waived at the request of the manufacturer.

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
49A	Commercial vehicles with regards to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UNECE Regulation No 61		C
			(a) General specifications	The requirements of paragraph 5 of UNECE Regulation No 61 shall apply
			(b) Particular specifications	The requirements of paragraph 6 of UNECE Regulation No 61 shall apply.
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	(a) Components	X
			(b) Installation	B
54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UNECE Regulation No 95	C	C
			Head form test	The manufacturer shall supply the technical service with suitable information concerning a possible impact of the head of the dummy against the structure of the vehicle or the side glazing, if made up of laminated glazing. When such impact is proven likely to happen, then the partial test using the head form test described in paragraph 3.1 of Annex 8 to UNECE Regulation No 95 shall be conducted and the criterion specified in paragraph 5.2.1.1 of UNECE Regulation No 95 shall be met. In agreement with the technical service, the test procedure described in Annex 4 to UNECE Regulation No 21 may be used as an alternative to the test of UNECE Regulation No 95 mentioned above.
56	Vehicles for the carriage of dangerous goods	Regulation (EC) No 661/2009 UNECE Regulation No 105		A
58	Pedestrian protection	Regulation (EC) No 78/2009	(a) Technical requirements applicable to a vehicle	N/A
			(b) Frontal protection systems	X
59	Recyclability	Directive 2005/64/EC		N/A Only Article 7 on reuse of component parts shall apply.

Item	Subject	Regulatory act	Specific issues	Applicability and specific requirements
61	Air-conditioning systems	Directive 2006/40/EC		B Fluorinated greenhouse gases with a global warming potential higher than 150 are permitted until 31 December 2016.
62	Hydrogen system	Regulation (EC) No 79/2009		X
63	General Safety	Regulation (EC) No 661/2009		See explanatory note ([15]) of the table in Part I of Annex IV with regulatory acts for EU type-approval of vehicles produced in unlimited series.
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	(a) Components	X
			(b) Installation	A
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UNECE Regulation No 97	(a) Components	X
			(b) Installation	B
69	Electric safety	Regulation (EC) No 661/2009 UNECE Regulation No 100		B
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	(a) Components	X
			(b) Installation	A
71	Cab strength	Regulation (EC) No 661/2009 UNECE Regulation No 29		C

Appendix 2

Requirements for EU individual vehicle approval pursuant to Article 42

1. APPLICATION

For the purpose of application of this appendix, a vehicle is deemed to be new where:

(a) it has never been registered previously; or

(b) it has been registered for less than 6 months at the time of the application for individual vehicle approval.

A vehicle shall be considered registered where it has obtained a permanent, temporary or short-term administrative authorisation for entry into service in road traffic, involving its identification and the issuing of a registration number ([1]).

1. ADMINISTRATIVE PROVISIONS

1.1. **Categorisation of the vehicle**

Vehicles shall be categorised according to the criteria set out in Annex II as follows:

(a) the actual number of seating positions shall be taken into consideration; and

(b) the technically maximum permissible laden mass shall be the maximum mass stated by the manufacturer in the country of origin and available in his official documentation.

Where it is not possible to easily determine the vehicle category because of the design of the bodywork, the conditions set out in Annex II shall apply.

1.2. **Application for individual vehicle approval**

(a) The applicant shall submit an application to the approval authority accompanied by all relevant documentation necessary for the operation of the approval procedure.

Where the submitted documentation is incomplete, falsified or forged the application for approval shall be rejected.

(b) Only one application for a particular vehicle may be submitted in only one Member State. The approval authority may require from the applicant a written commitment that only one application will be submitted in the Member State of the approval authority.

By a particular vehicle, it shall be understood a physical vehicle the vehicle identification number of which is clearly identified.

However, any applicant may apply for EU individual vehicle approval in another Member State in respect of another particular vehicle with technical characteristics identical or similar to the one that has been granted an EU individual vehicle approval.

([1]) In the absence of a registration document, the competent authority may refer to available documented evidence of date of manufacture or documented evidence of first purchase.

(c) The model of the application form and the layout of the file shall be laid down by the approval authority.

The particulars of the vehicle requested may only consist in an appropriate selection of the information included in Annex I.

(d) The technical requirements to be complied with are those laid down in section 4.

The technical requirements shall be those applicable to new vehicles belonging to a type of vehicle currently in production, in relation to the date of the submission of the application.

(e) With respect to the tests required in the regulatory acts listed in this Annex, the applicant shall supply a statement of compliance with recognised international standards or regulations. The statement in question may only be issued by the vehicle manufacturer.

'Statement of compliance' shall mean a statement issued by the office or department within the manufacturer's organisation that is duly authorised by the management to fully engage the legal responsibility of the manufacturer with respect to the design and the construction of a vehicle.

The regulatory acts for which such a statement has to be supplied shall be those referred to in section 4.

Where a statement of compliance gives rise to uncertainty, the applicant may be required to obtain from the manufacturer a piece of evidence, including a test report, in order to corroborate the manufacturer's statement.

1.3. **Technical services entrusted with individual vehicle approvals**

(a) The technical services entrusted with individual vehicle approvals shall be of category A as referred to in Article 72(1).

(b) By way of derogation from the requirement to demonstrate their compliance with the standards listed in Appendix 1 to Annex V, technical services shall comply with the following standards:

(i) EN ISO/IEC 17025:2005 when they perform tests themselves;

(ii) EN ISO/IEC 17020:2012 when they check compliance of the vehicle with the requirements included in this Appendix.

(c) Where specific tests requiring specific skills have to be conducted at the request of the applicant, they shall be conducted by one of the technical services notified to the Commission at the choice of the applicant.

1.4. **Test reports**

(a) Test reports shall be drafted in accordance with paragraph 5.10.2 of Standard EN ISO/IEC 17025:2005.

(b) Test reports shall be drafted in one of the languages of the Union determined by the approval authority.

Where in application of point 1.3(c) a test report has been issued in a Member State other than the one entrusted with the individual vehicle approval, the approval authority may require that the applicant submits a true translation of the test report.

(c) Test reports shall include a description of the vehicle tested, including its identification. The parts that play a significant role with regard to the results of the tests shall be described and their identification number reported.

(d) At the request of an applicant, a test report delivered for a system related to a particular vehicle may be presented repeatedly either by the same or another applicant for the purposes of individual approval of another vehicle.

In such a case, the approval authority shall ensure that the technical characteristics of the vehicle are properly inspected against the test report.

Inspection of the vehicle and the documentation accompanying the test report shall demonstrate that the vehicle for which an individual approval is sought has the same characteristics as the vehicle described in the report.

(e) Only authenticated copies of a test report may be submitted.

(f) Test reports referred to in point 1.4(d) do not include the reports drawn up in order to grant the individual vehicle approval.

1.5. In the individual vehicle approval procedure each particular vehicle shall be inspected physically by the technical service.

No exemption to this principle shall be permitted.

1.6. Where the approval authority is satisfied that the vehicle meets the technical requirements specified in this Appendix and conforms to the description included in the application, it shall grant approval in accordance with Article 42.

1.7. The certificate of approval shall be drafted according to Model D as laid down in Annex VI.

1.8. The approval authority shall keep record of all approvals granted under Article 42.

2. REVIEW OF THE TECHNICAL REQUIREMENTS

The list of the technical requirements included in section 3 shall be regularly reviewed in order to take account of the results of the harmonisation work in progress at the World Forum for Harmonization of Vehicle Regulations (WP.29) in Geneva and legislative developments in the third countries.

3. TECHNICAL REQUIREMENTS

Part I: Vehicles belonging to category M_1

Item	Regulatory act reference	Alternative requirements
1	Council Directive 70/157/EEC[28] (Permissible sound level)	*Drive-by test* (a) A test shall be conducted in accordance with the 'Method A' referred to in Annex 3 to UNECE Regulation No 51. Limits are those specified in point 2.1 of Annex I to Directive 70/157/EEC. 1 decibel in addition to the permitted limits shall be allowed. (b) The test track shall comply with Annex 8 to UNECE Regulation No 51. A test track having different specifications may be used under the condition that correlation tests have been conducted by the technical service. A correction factor shall be applied if necessary. (c) Exhaust systems containing fibrous materials need not be conditioned as prescribed in Annex 5 to UNECE Regulation No 51. *Stationary test* A test shall be conducted in accordance with paragraph 3.2 of Annex 3 to UNECE Regulation No 51.
2a	Regulation (EC) No 715/2007 (Emissions Euro 5 and 6 light duty vehicles/access to information)	*Tailpipe emissions* (a) A type I test shall be conducted in accordance with Annex III to Regulation (EC) No 692/2008 using the deterioration factors set out in point 1.4 of Annex VII to Regulation (EC) No 692/2008. The limits to be applied shall be those specified in Table I and Table II in Annex I to Regulation (EC) No 715/2007. (b) The vehicle shall not be required to exhibit 3 000 km as mentioned in paragraph 3.1.1 of Annex 4 to UNECE Regulation No 83. (c) The fuel to be used for the test shall be the reference fuel as prescribed in Annex IX to Regulation (EC) No 692/2008. (d) The dynamometer shall be set up in accordance with the technical requirements set out in paragraph 3.2 of Annex 4 to UNECE Regulation No 83.

[28] Council Directive of 6 February 1970 on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust system of motor vehicles (OJ L 42, 23.2.1970, p. 16).

		(e) The test referred to in point (a) shall not be conducted where it can be shown that the vehicle complies with the California Code Regulations referred to in point 2.1.1 of Annex I to Regulation (EC) No 692/2008. *Evaporative emissions* For petrol-fuelled engines, the presence of an evaporate emissions control system shall be required (e.g. a charcoal canister). *Crankcase emissions* The presence of a device for recycling crankcase gases shall be required. *OBD* (a) The vehicle shall be fitted with an OBD system. (b) OBD-interface must be able to communicate with common diagnostic tools used for periodic technical inspections. *Smoke opacity* (a) Vehicles equipped with a diesel-fuelled engine shall be tested in accordance with the tests methods referred to in Appendix 2 to Annex IV to Regulation (EC) No 692/2008. (b) The corrected value of the absorption coefficient shall be affixed conspicuously and in a readily accessible place. *CO_2 emissions and fuel consumption* (a) A test shall be conducted in accordance with Annex XII to Regulation (EC) No 692/2008. (b) The vehicle shall not be required to exhibit 3 000 km as requested in paragraph 3.1.1 of Annex 4 to UNECE Regulation No 83. (c) Where the vehicle complies with the California Code Regulations referred to in point 2.1.1 of Annex I to Regulation (EC) No 692/2008 and therefore no test of tailpipe emissions is required to be performed, Member States shall calculate CO_2 emissions and fuel consumption with the formula laid down in the explanatory notes ([b]) and ([c]). *Access to information* The provisions regarding access to information shall not apply. *Power measurement* (a) The applicant shall submit a statement from the manufacturer stating the maximum engine power output in kW as well as the corresponding engine speed in revolutions per minute. (b) An engine power output curve providing the same information may alternatively be provided by the applicant.
3	UNECE Regulation No 34 (Fuel tanks — Rear	*Fuel tanks* (a) Fuel tanks shall comply with paragraph 5 of UNECE Regulation No 34 with the exception of paragraphs 5.1, 5.2

	protective devices)	and 5.12. In particular, they shall comply with paragraphs 5.9 and 5.9.1 but no dripping test shall be conducted. (b) LPG or CNG tanks shall be type-approved in accordance with UNECE Regulation No 67, series of amendments 01, or Regulation No 110 ([a]), respectively. *Specific provisions for fuel tanks made of a plastic material* The applicant shall submit a statement from the manufacturer establishing that the fuel tank on the particular vehicle, the Vehicle Identification Number (VIN) of which has to be specified, complies either with at least one of the following: — FMVSS No 301 (Fuel system integrity), or — Annex 5 to UNECE Regulation 34. *Rear protective device* The rear part of the vehicle shall be constructed in accordance with paragraphs 8 and 9 of UNECE Regulation No 34.
3B	UNECE Regulation No 58 (rear underrun protection)	The rear part of the vehicle shall be constructed in accordance with paragraph 2 UNECE Regulation No 58. It is sufficient that the requirements set out in paragraph 2.3 are fulfilled.
4	Regulation (EU) No 1003/2010 (Rear registration plate space)	Space, inclination, angles for visibility and position of the registration plate shall comply with Regulation (EU) No 1003/2010.
5	UNECE Regulation No 79 (Steering effort)	*Mechanical systems* (a) The steering mechanism shall be built as to self-centre. In order to check compliance with this provision, a test shall be conducted in accordance with paragraphs 6.1.2 and 6.2.1 of UNECE Regulation No 79. (b) The failure of the power steering equipment shall not lead to a complete loss of control of the vehicle. *Complex electronic vehicle control system ('Drive-by wire' devices)* Complex electronic control system shall be permitted only if they comply with Annex 6 to UNECE Regulation No 79.
6	UNECE Regulation No 11 (Door latches and hinges)	Compliance with paragraph 6.1.5.4 of UNECE Regulation No 11.
7	UNECE Regulation No 28 (Audible warning)	*Components* The audible warning devices are not required to be type-approved in accordance with UNECE Regulation No 28. However, they shall emit a continuous sound as required in paragraph 6.1.1 of UNECE Regulation No 28. *Installation on vehicle* (a) A test shall be conducted in accordance with paragraph 6.2 of UNECE Regulation No 28. (b) The maximum sound pressure level shall be in accordance

		with paragraph 6.2.7.
8	UNECE Regulation No 46 (Indirect vision devices)	*Components* (a) The vehicle shall be fitted with the rear-view mirrors prescribed in paragraph 15.2 of UNECE Regulation No 46. (b) They are not required to be type-approved in accordance with UNECE Regulation No 46. (c) The radii of curvature of the mirrors shall not cause significant image distortions. At the discretion of the technical service, the radii of curvature shall be checked in accordance with the method described in Annex 7 to UNECE Regulation No 46. The radii of curvature shall not be less than those required by paragraph 6.1.2.2.4. of UNECE Regulation No 46. *Installation on vehicle* Measurement shall be conducted in order to ensure that the fields of vision comply either with paragraph 15.2.4. of UNECE Regulation No 46 or with section 5 of Annex III to Directive 71/127/EEC.
9	UNECE Regulation No 13-H (Braking)	*General provisions* (a) The braking system shall be built in accordance with paragraph 5 of UNECE Regulation No 13-H. (b) Vehicles shall be fitted with an electronic antilock braking system acting on all wheels. (c) The performances of the braking system shall comply with Annex III to UNECE Regulation No 13-H. (d) For those purposes, road tests shall be conducted on a track the surface of which possesses high adhesion. The test on the parking brake shall be conducted on a 18 % gradient (up and down). Only those tests mentioned under the headings "Service brake" and "Parking brake" below shall be conducted. In each case, the vehicle shall be in fully laden conditions. (e) The road test referred to in point (d) shall not be conducted where the applicant can submit a statement from the manufacturer establishing that the vehicle complies either with UNECE Regulation No 13-H, including supplement 5, or with FMVSS No 135. *Service brake* (a) A 'Type 0' test as prescribed in paragraphs 1.4.2 and 1.4.3 of Annex 3 to UNECE Regulation No 13-H shall be conducted. (b) In addition, a 'Type I' test as prescribed in paragraph 1.5 of Annex 3 to UNECE Regulation No 13-H shall be conducted. *Parking brake* A test shall be conducted in accordance with paragraph 2.3 of Annex 3 to UNECE Regulation No 13-H.
10	UNECE Regulation No 10 (Radio interference (electromagnetic compatibility))	*Components* (a) Electrical/electronic sub-assemblies are not required to be type-approved in accordance with UNECE Regulation No 10. (b) However, electric/electronic devices retrofitted shall comply

		with UNECE Regulation No 10. *Emitted electromagnetic radiations* The applicant shall submit a statement from the manufacturer establishing that the vehicle complies with UNECE Regulation No 10 or with the following alternative standards: — Broadband electromagnetic radiation: CISPR 12 or SAE J551-2, or — Narrowband electromagnetic radiation: CISPR 12 (off-board) or 25 (in-board) or SAE J551-4 and SAE J1113-41. *Immunity tests* Immunity test shall be waived.
12	UNECE Regulation No 21 (Interior fittings)	*Interior arrangement* (a) With respect to the requirements on energy absorption, the vehicle shall be deemed to comply with UNECE Regulation No 21 if the vehicle is fitted with at least two front airbags, one inserted into the steering wheel and the other into the dashboard. (b) Where the vehicle is fitted with only one front air bag inserted in the steering wheel, the dashboard shall be made up of energy absorbing materials. (c) The technical service shall check that there are no sharp edges in the zones defined in paragraphs 5.1 to 5.7 of UNECE Regulation No 21. *Electrical controls* (a) Power-operated windows, roof–panel systems and partitioning systems shall be tested in accordance with paragraph 5.8 of UNECE Regulation No 21. The sensitivity of auto-reverse systems referred to in paragraph 5.8.3 may diverge from the requirements set out in paragraph 5.8.3.1.1 of UNECE Regulation No 21. (b) Electric windows which cannot be closed when the ignition is off shall be exempt from the requirements concerning auto-reverse systems.
13	UNECE Regulation No 18 (Anti-theft and immobiliser)	(a) In order to prevent unauthorised use, the vehicle shall be fitted with: — a locking device as defined in paragraph 2.3 of UNECE Regulation No 18, and — an immobiliser which meets the technical requirements of paragraph 5 of UNECE Regulation No 18; (b) If, in accordance with point (a), an immobiliser has to be retrofitted, it shall be of an approved type in accordance with UNECE Regulations No 18, No 97, or No 116.
14	UNECE Regulation No 12 (Protective steering)	(a) The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, the VIN of which has to be specified, complies with at least one of the following:

		— UNECE Regulation No 12, — FMVSS No 203 (Impact protection for the driver from the steering control system) including FMVSS No 204 (Steering control rearward displacement), — Article 11 of JSRRV. (b) A test in accordance with Annex 3 to UNECE Regulation No 12 may be conducted on a production vehicle at the request of the applicant. The test shall be conducted by a technical service that has been designated for carrying out this test. A detailed report shall be issued by that technical service to the applicant.
15	UNECE Regulation No 17 (Seat strength — head restraints)	*Seats, seat anchorages and adjustment systems* The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, the VIN of which has to be specified, complies with at least one of the following: — UNECE Regulation No 17; or — FMVSS No 207 (Seating systems). *Head restraints* (a) Where the statement is based on FMVSS No 207, the head restraints shall fulfil, in addition, the requirements of paragraph 5 and Annex 4 to UNECE Regulation No 17. (b) Only the tests described in paragraphs 5.12, 6.5, 6.6 and 6.7 of UNECE Regulation No 17 shall be conducted. (c) In the other event, the applicant shall submit a statement from the manufacturer establishing that the particular vehicle, the VIN of which has to be specified, complies with FMVSS No 202a (Head restraints).
16	UNECE Regulation No 17 (Exterior projections)	(a) The external surface of the bodywork shall comply with the general requirements included in paragraph 5 of UNECE Regulation No 17. (b) At the discretion of the technical service the provisions referred to in paragraphs 6.1, 6.5, 6.6, 6.7, 6.8 and 6.11 of UNECE Regulation No 17 shall be checked.
17	UNECE Regulation No 39 (Speedometer — reverse gear)	*Speedometer equipment* (a) The dial shall comply with paragraphs 5.1 to 5.1.4 of UNECE Regulation No 39. (b) Where the technical service wants to verify that the speedometer is calibrated with sufficient accuracy, it may require the tests prescribed in paragraph 5.2 of UNECE Regulation No 39 to be conducted. *Reverse gear* The gear mechanism shall include a reverse gear.
18	Regulation (EU) No 19/2011 (Statutory plates)	*Vehicle identification number* (a) The vehicle shall be fitted with a vehicle identification number comprising a minimum of 8 and a maximum of 17 characters. Vehicle identification number comprising 17 characters shall fulfil the requirements set out in Standards ISO 3779:1983 and 3780:1983. (b) The vehicle identification number shall be located in a

		clearly visible and accessible position in such a way as it cannot be obliterated or deteriorate. (c) Where no vehicle identification number is stamped in the chassis or in the body, a Member State may require the applicant that the VIN is retrofitted in application of its national law. In such a case, the competent authority of that Member State shall supervise the operation. *Statutory plate* The vehicle shall be fitted with an identification plate affixed by the vehicle manufacturer. No additional plate shall be requested after the approval by the approval authority has been granted.
19	UNECE Regulation No 14 (Seat belt anchorages)	The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, the VIN of which has to be specified, complies with at least one of the following: — UNECE Regulation No 14; — FMVSS No 210 (Seat belt assembly anchorages), or — Article 22-3 of JSRRV.
20	UNECE Regulation No 48 (Installation of lighting and light signalling devices)	(a) The lighting installation shall meet the requirements of UNECE Regulation No 48, series of amendments 03, with the exception of the requirements of Annexes 5 and 6 to that Regulation. (b) No exemption shall be permitted in respect of the number, the essential design characteristics, the electrical connections, and the colour of light emitted or retro-reflected of the lights and signalling devices referred to in items 21 to 26 and in items 28 to 30. (c) Lights and signalling devices that, for the purpose of fulfilling the requirements of point (a) must be retrofitted shall bear an 'EU' type-approval mark. (d) Lamps fitted with gas-discharged light source are only permitted in conjunction with the installation of headlamp cleaning device and an automatic headlamp-levelling device where appropriate. (e) Headlamp dipped-beams shall be adapted to the direction of traffic legally in force in the country where the vehicle is granted approval.
21	UNECE Regulation No 3 (Retro reflectors)	Where necessary, two additional retro reflectors bearing an 'EC' approval mark shall be added at the rear, the position of which shall comply with UNECE Regulation No 48.
22	UNECE Regulations No 7, No 87 and No 91 (End-outline, front position (side), rear-position (side), stop, side marker, daytime running lamps)	The requirements set out in the UNECE Regulations No 7, No 87 and No 91 shall not apply. However, the correct functioning of the lights shall be checked by the technical service.
23	UNECE Regulation No 6 (Direction indicators)	The requirements set out in UNECE Regulation No 6 shall not apply. However, the correct functioning of the lights shall be checked by the technical service.
24	UNECE Regulation No 4	The requirements set out in UNECE Regulation No 4 shall not

	(Rear registration plate lamps)	apply. However, the correct functioning of the lights shall be checked by the technical service.
25	UNECE Regulations No 98, No 112 and No 123 (Headlamps (including bulbs))	(a) The illumination produced by the passing beam of the headlamps fitted to the vehicle shall be checked under paragraph 6 of UNECE Regulation No 112 concerning headlamps emitting an asymmetrical passing beam. The tolerances included in Annex 5 to that Regulation may be referred to for that purpose. (b) The same requirement shall be fulfilled for the passing beam of headlamps covered by UNECE Regulation No 98 or No 123.
26	UNECE Regulation No 19 (Front fog lamps)	The requirements set out in UNECE Regulation No 19 shall not apply. However, the correct functioning of the lights if fitted shall be checked by the technical service.
27	Regulation (EU) No 1005/2010 (Towing hooks)	The requirements set out in Regulation (EU) No 1005/2010 shall not apply.
28	UNECE Regulation No 38 (Rear fog lamps)	The requirements set out in UNECE Regulation No 38 shall not apply. However, the correct functioning of the lights shall be checked by the technical service.
29	UNECE Regulation No 23 (Reversing lamps)	The requirements set out in UNECE Regulation No 23 shall not apply. However, the correct functioning of the lights if fitted shall be checked by the technical service.
30	UNECE Regulation No 77 (Parking lamps)	The requirements set out in UNECE Regulation No 77 shall not apply. However, the correct functioning of the lights if fitted shall be checked by the technical service.
31	UNECE Regulation No 16 (Seat belts and restraint systems)	*Components* (a) Seat belts shall not be required to be type-approved in accordance with UNECE Regulation No 16. (b) However, each seat belt shall bear an identification label. (c) The indications on the label shall be consistent with the decision concerning seat belt anchorages (Re: entry 19). *Installation requirements* (a) The vehicle shall be fitted with seat belts in accordance with the requirements set out in Annex XVI to UNECE Regulation No 16. (b) Where a number of seat belts have to be retrofitted in accordance with point (a), they shall be of an approved type in accordance with UNECE Regulation No 16.
32	UNECE Regulation No 125 (Forward vision)	(a) No obstruction in the 180° forward field of vision of the driver as defined in paragraph 5.1.3 of UNECE Regulation No 125 shall be permitted. (b) By derogation from point (a), the 'A pillars' and the equipment listed in paragraph 5.1.3 of UNECE Regulation No 125 shall not be considered as obstruction. (c) The number of 'A pillars' shall not exceed 2.
33	UNECE Regulation No 121 (Identification of controls,	(a) The symbols including the colour of their corresponding tell-tales the presence of which is mandatory by virtue of

	tell-tales and indicators)	UNECE Regulation No 121 shall comply with that UNECE Regulation. (b) Where this is not the case, the technical service shall verify that the symbols, tell-tales and indicators fitted to the vehicle provide the driver with comprehensible information about the operation of the controls in question.
34	Regulation (EU) No 672/2010 (Defrost/Demist)	The vehicle shall be equipped with adequate windscreen defrosting and windscreen demisting devices. A windscreen defrosting device which complies as a minimum with point 1.1.1 of Annex II to Regulation (EU) No 672/2010 shall be deemed 'adequate'. A windscreen demisting device which complies as a minimum with point 1.2.1 of Annex II to Regulation (EU) No 672/2010 shall be deemed 'adequate'.
35	Regulation (EU) No 1008/2010 (Wash/Wipe)	The vehicle shall be equipped with adequate windscreen washing and windscreen wiping devices. A windscreen washing and wiping device that complies as a minimum with the conditions set out in point 1.1.5 of Annex III to Regulation (EU) No 1008/2010 shall be deemed 'adequate'.
36	UNECE Regulation No 122 (Heating systems)	(a) The passenger compartment shall be fitted with a heating system. (b) Combustion heaters and their installation shall comply with Annex 7 to UNECE Regulation No 122. In addition, LPG combustion heaters and LPG heating systems shall fulfil the requirements set out in Annex 8 to UNECE Regulation No 122. (c) Additional heating systems which are retrofitted shall comply with the requirements set out in that UNECE Regulation No 122.
37	Regulation (EU) No 1009/2010 (Wheel guards)	(a) The vehicle shall be designed as to protect other road users against thrown-up stones, mud, ice, snow and water and to reduce the dangers due to contact with the moving wheels. (b) The technical service may check that the technical requirements set out in Annex II to Regulation (EU) No 1009/2010 are complied with. (c) The provisions of section 3 of Annex I to that Regulation shall not apply.
38	UNECE Regulation No 25 (Head restraints)	The requirements of UNECE Regulation No 25 shall not apply.
44	Regulation (EU) No 1230/2012 (Masses and dimensions)	(a) The requirements of section 1 of Part A of Annex I to Regulation (EU) No 1230/2012 shall be fulfilled. (b) For the purposes of point (a), the masses to be considered are the following: — the mass in running order defined in point 2.6 of Annex I to Regulation (EU) No 1230/2012 as measured by the technical service, and — the laden masses either stated by the vehicle

		manufacturer or shown on the manufacturer's plate including stickers or information available in the owner's manual. Those masses shall be deemed the technically permissible maximum laden masses. (c) No exemption shall be permitted in respect of the maximum permissible dimensions.
45	Regulation (EU) No 1230/2012 (Safety glazing)	*Components* (a) The glazing shall be made either of tempered or laminated safety glass. (b) Fitting of plastic glazing shall be permitted only on locations situated behind the 'B' pillar. (c) Glazing shall not be required to be approved under Regulation (EU) No 1230/2012. *Installation* (a) The installation requirements set out in Annex 21 to UNECE Regulation No 43 shall apply. (b) No tinted films that would reduce the regular light transmission under the required minimum shall be permitted on the windscreen and on the glazing located in front of the 'B' pillar.
46	Directive 92/23/EEC (Tyres)	*Components* Tyres shall bear an 'EC' type-approval mark including the symbol 's' (for sound). *Installation* (a) The dimensions, load-capacity index and speed category of the tyres shall fulfil the requirements of Annex IV to Directive 92/23/EEC. (b) The speed category symbol of the tyre shall be compatible with the maximum design speed of the vehicle. This requirement shall apply notwithstanding the presence of a speed limiter. (c) The maximum speed of the vehicle shall be stated by the vehicle manufacturer. However, the technical service may assess the maximum design speed of the vehicle by using the engine maximum power output, the maximum number of revolutions per minute and the data concerning the kinematic chain.
50	UNECE Regulation No 55 (Couplings)	*Separate technical units* (a) OEM couplings intended for towing a trailer whose maximum mass does not exceed 1 500 kg shall not be required to be type-approved under UNECE Regulation No 55. A coupling is deemed OEM equipment where it is described in the owner's manual or an equivalent supporting document provided to the buyer by the vehicle manufacturer. Where such coupling is approved with the vehicle, an appropriate text shall be included in the approval certificate stating that the owner is responsible for ensuring compatibility with the coupling device fitted to the trailer. (b) Couplings other than those referred to in point (a), as well as couplings that are retrofitted, shall be type-approved in accordance with UNECE Regulation No 55.

		Installation on the vehicle The technical service shall check that the installation of the coupling devices comply with paragraph 6 of UNECE Regulation No 55.
53	UNECE Regulation No 94 (Frontal impact) ([e])	(a) The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, of which the VIN has to be specified, complies with at least one of the following: — UNECE Regulation No 94, — FMVSS No 208 (Occupant crash protection), — Article 18 of JSRRV. (b) A test in accordance with paragraph 5 of UNECE Regulation No 94 may be conducted on a production vehicle at the request of the applicant. The test shall be conducted by a technical service that has been designated for carrying out this test. A detailed report shall be issued by that technical service to the applicant
54	UNECE Regulation No 95 (Side impact)	(a) The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, of which the VIN has to be specified complies with at least one of the following: — UNECE Regulation No 95, — FMVSS No 214 (Side impact protection), — Article 18 of JSRRV. (b) A test in accordance with section 5 of UNECE Regulation No 95 may be conducted on a production vehicle at the request of the applicant. The test shall be conducted by a technical service that has been designated for carrying out this test. A detailed report shall be issued by that technical service to the applicant.
58	Regulation (EC) No 78/2009 (Pedestrian protection)	*Brake assist* Vehicles shall be fitted with an electronic antilock braking system acting on all wheels. *Pedestrian protection* The requirements of Regulation (EC) No 78/2009 shall apply. *Frontal protection systems* Frontal protection systems installed on the vehicle shall be type-approved in accordance with Regulation (EC) No 78/2009 and their installation shall comply with the requirements set out in section 6 of Annex I to that Regulation.
59	Directive 2005/64/EC (Recyclability)	The requirements of that Directive shall not apply.
61	Directive 2006/40/EC (Air-conditioning system)	The requirements of that Directive shall apply.

Part II: Vehicles belonging to category N_1

Item	Regulatory act reference	Alternative requirements
2a	Regulation (EC) No 715/2007 Emissions (Euro 5 and 6) light duty vehicles/access to information	*Tailpipe emissions* (a) A type I test shall be conducted in accordance with Annex III to Regulation (EC) No 692/2008 using the deterioration factors set out in point 1.4 of Annex VII to Regulation (EC) No 692/2008. The limits to be applied shall be those specified in Table I and Table II in Annex I to Regulation (EC) No 715/2007. (b) The vehicle shall not be required to exhibit 3 000 km as mentioned in paragraph 3.1.1 of Annex 4 to UNECE Regulation No 83. (c) The fuel to be used for the test shall be the reference fuel as prescribed in Annex IX to Regulation (EC) No 692/2008. (d) The dynamometer shall be set up in accordance with the technical requirements of paragraph 3.2 of Annex 4 to UNECE Regulation No 83. (e) The test referred to in point (a) shall not be conducted where it can be shown that the vehicle complies with the California Code Regulations referred to in point 2 of Annex I to Regulation (EC) No 692/2008. *Evaporative emissions* For petrol-fuelled engines, the presence of an evaporate emissions control system (e.g. a charcoal canister) shall be required. *Crankcase emissions* The presence of a device for recycling crankcase gases shall be required. *OBD* The vehicle shall be fitted with an OBD system. OBD-interface must be able to communicate with common diagnostic tools used for periodic technical inspections. *Smoke opacity* (a) Vehicles equipped with a diesel-fuelled engine shall be tested in accordance with the tests methods referred to in Appendix 2 to Annex IV to Regulation (EC) No 692/2008. (b) The corrected value of the absorption coefficient shall be affixed, conspicuously and in a readily accessible place. *CO_2 emissions and fuel consumption* (a) A test shall be conducted in accordance with Annex XII to Regulation (EC) No 692/2008. (b) The vehicle shall not be required to exhibit 3 000 km as requested in paragraph 3.1.1 of Annex 4 to UNECE Regulation No 83. (c) Where the vehicle complies with the California Code Regulations referred to in point 2 of Annex I to Commission Regulation (EC) No 692/2008 and therefore no test of tailpipe emissions is required to be performed, Member States shall calculate CO_2 emissions and fuel consumption with the formula laid down in the explanatory notes ([b]) and ([c]).

		Access to information The provisions regarding access to information shall not apply. *Power measurement* (a) The applicant shall submit a statement from the manufacturer stating the maximum engine power output in kW as well as the corresponding regime in revolutions per minute. (b) An engine power output curve providing the same information may alternatively be provided by the applicant.
3	UNECE Regulation No 34 (Fuel tanks — Rear protective devices)	*Fuel tanks* (a) Fuel tanks shall comply with paragraph 5 of UNECE Regulation No 34 with the exception of paragraphs 5.1, 5.2 and 5.12. In particular, they shall comply with paragraph 5.9 and 5.9.1 but no dripping test shall be conducted. (b) LPG or CNG tanks shall be type-approved in accordance with, respectively UNECE Regulations No 67, series of amendments 01, or Regulation No 110 ([a]). *Specific provisions for fuel tanks made of a plastic material* The applicant shall submit a statement from the manufacturer establishing that the fuel tank on the particular vehicle, of which the VIN has to be specified, complies either with at least one of the following: — FMVSS No 301 (Fuel system integrity), — Annex 5 to UNECE Regulation No 34. *Rear protective device* (a) The rear part of the vehicle shall be constructed in accordance with paragraphs 8 and 9 of UNECE Regulation No 34.
4	Regulation (EU) No 1003/2010 (Rear registration plate space)	Space, inclination, angles for visibility and position of the registration plate shall comply with Regulation (EU) No 1003/2010.
5	UNECE Regulation No 79 (Steering effort)	*Mechanical systems* (a) The steering mechanism shall be built as to self-centre. In order to check compliance with this provision, a test shall be conducted in accordance with paragraphs 6.1.2 and 6.2.1 of UNECE Regulation No 79. (b) The failure of the power steering equipment shall not lead to a complete loss of control of the vehicle. *Complex electronic vehicle control system ('Drive-by wire' devices)* Complex electronic control system shall be permitted only if they comply with Annex 6 to UNECE Regulation No 79.
6	UNECE Regulation No 11 (Door latches and hinges)	Compliance with paragraph 6.1.5.4 of UNECE Regulation No 11

7	UNECE Regulation No 28 (Audible warning)	*Components* The audible warning devices are not required to be type-approved in accordance with UNECE Regulation No 28. However, they shall emit a continuous sound as required in paragraph 6.1.1 of UNECE Regulation No 28. *Installation on vehicle* (a) A test shall be conducted in accordance with paragraph 6.2 of UNECE Regulation No 28. (b) The maximum sound pressure level shall be in accordance with paragraph 6.2.7.
8	UNECE Regulation No 46 (Indirect vision devices)	*Components* (a) The vehicle shall be fitted with the rear-view mirrors prescribed in paragraph 15.2 of UNECE Regulation No 46. (b) They are not required to be type-approved in accordance with UNECE Regulation No 46. (c) The radii of curvature of the mirrors shall not cause significant image distortions. At the discretion of the technical service, the radii of curvature shall be checked in accordance with the method described in Appendix 1 to Annex 7 to UNECE Regulation No 46. The radii of curvature shall not be less than those required by paragraph 6.1.2.2.4 of UNECE Regulation No 46. *Installation on vehicle* Measurement shall be conducted in order to ensure that the fields of vision comply with paragraph 15.2.4. of UNECE Regulation No 46.
9	UNECE Regulation No 13-H (Braking)	*General provisions* (a) The braking system shall be built in accordance with paragraph 5 of UNECE Regulation No 13-H. (b) Vehicles shall be fitted with an electronic antilock braking system acting on all wheels. (c) The performances of the braking system shall comply with Annex III to UNECE Regulation No 13-H. (d) For these purposes, road tests shall be conducted on a track the surface of which possesses high adhesion. The test on the parking brake shall be conducted on a 18 % gradient (up and down). Only those tests mentioned under the headings "Service brake" and "Parking brake" below shall be conducted. In each case, the vehicle shall be in fully laden conditions. (e) The road test referred to in point (c) shall not be conducted where the applicant can submit a statement from the manufacturer establishing that the vehicle complies either with UNECE Regulation No 13-H including supplement 5 or with FMVSS No 135. *Service brake* (a) A 'Type 0' test as prescribed in paragraphs 1.4.2 and 1.4.3 of Annex 3 to UNECE Regulation No 13-H shall be conducted. (b) In addition, a 'Type I' test as prescribed in paragraph 1.5 of

		Annex 3 to UNECE Regulation No 13-H shall be conducted. *Parking brake* A test shall be conducted in accordance with paragraph 2. 3 of Annex 3 to UNECE Regulation No 13-H.
10	UNECE Regulation No 10 (Radio interference (electromagnetic compatibility))	*Components* (a) Electrical/electronic sub-assemblies are not required to be type-approved in accordance with UNECE Regulation No 10. (b) However, electric/electronic devices retrofitted shall comply with UNECE Regulation No 10. *Emitted electromagnetic radiations* The applicant shall submit a statement from the manufacturer establishing that the vehicle complies with UNECE Regulation No 10 or with the following alternative standards: — Broadband electromagnetic radiation: CISPR 12 or SAE J551-2, — Narrowband electromagnetic radiation: CISPR 12 (off-board) or 25 (in-board) or SAE J551-4 and SAE J1113-41. *Immunity tests* Immunity test shall be waived.
13	UNECE Regulation No 116 (Anti-theft and immobiliser)	(a) In order to prevent unauthorised use, the vehicle shall be fitted with a locking device as defined in paragraph 5.1.2 of UNECE Regulation No 116. (b) If an immobiliser is fitted, it shall comply with the technical requirements of paragraph 8.1.1 of UNECE Regulation No 116.
14	UNECE Regulation No 12 (Protective steering)	(a) The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, the VIN of which has to be specified, complies with at least one of the following: — UNECE Regulation No 12, — FMVSS No 203 (Impact protection for the driver from the steering control system) including FMVSS No 204 (Steering control rearward displacement), — Article 11 of JSRRV. (b) A test in accordance with Annex 3 to UNECE Regulation No 12 may be conducted on a production vehicle at the request of the applicant. The test shall be conducted by a technical service that has been designated for carrying out this test. A detailed report shall be issued by that technical service to the applicant.

15	UNECE Regulation No 17 (Seats strength — head restraints)	*Seats, seat anchorages and adjustment systems* Seats and their adjustable systems shall comply with paragraph 5.3 of UNECE Regulation No 17. *Head restraints* (a) Head restraints shall fulfil the requirements of section 5 of UNECE Regulation No 17 and Annex 4 to UNECE Regulation No 17. (b) Only the tests described in paragraphs 5.12, 6.5, 6.6 and 6.7 of UNECE Regulation No 17shall be conducted.
17	UNECE Regulation No 39 (Speedometer — reverse gear)	*Speedometer equipment* (a) The dial shall comply with paragraphs 5.1 to 5.14 of UNECE Regulation No 39. (b) When the technical service has reasonable grounds to believe that the speedometer is not calibrated with a sufficient accuracy, it may require that the tests prescribed in paragraph 5.2 of UNECE Regulation No 39 be conducted. *Reverse gear* The gear mechanism shall include a reverse gear.
18	Regulation (EU) No 19/2011 (Statutory plates)	*Vehicle identification number* (a) The vehicle shall be fitted with a vehicle identification number comprising a minimum of 8 and a maximum of 17 characters. Vehicle identification number comprising 17 characters shall fulfil the requirements set out in Standards ISO 3779:1983 and 3780:1983. (b) The vehicle identification number shall be located in a clearly visible and accessible position in such a way as it cannot be obliterated or deteriorate. (c) Where no vehicle identification number is stamped in the chassis or in the body, a Member State may require that it is retrofitted in application of its national law. In such a case, the competent authority of that Member State shall supervise the operation. *Statutory plate* The vehicle shall be fitted with an identification plate affixed by the vehicle manufacturer. No additional plate shall be requested after the approval has been granted.
19	UNECE Regulation No 14 (Seat belt anchorages)	The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, of which the VIN has to be specified, complies with at least one of the following: — UNECE Regulation No 14, — FMVSS No 210 (Seat belt assembly anchorages), — Article 22-3 of JSRRV.
20	UNECE Regulation No 48 (Installation of lighting and light signalling devices)	(a) The lighting installation shall meet the essential requirements of UNECE Regulation No 48 series of amendments 03 with the exception of those of Annexes 5 and 6 to UNECE Regulation No 48. (b) No exemption shall be permitted in respect of the number, the essential design characteristics, the electrical connections, and the colour of light emitted or retro-reflected

		of the lights and signalling devices referred to in items 21 to 26 and in items 28 to 30. (c) Lights and signalling devices that, for the purpose of fulfilling with the requirements of point (a) must be retrofitted shall bear an 'EU' type-approval mark. (d) Lamps fitted with gas-discharged light source are only permitted in conjunction with the installation of headlamp cleaning device and an automatic headlamp-levelling device where appropriate. (e) Headlamp dipped-beams shall be adapted to the direction of traffic legally in force in the country where the vehicle is granted approval.
21	UNECE Regulation No 3 (Retro reflectors)	Where necessary, two additional retro reflectors bearing an 'EC' approval mark shall be added at the rear, the position of which shall comply with UNECE Regulation No 48.
22	UNECE Regulations No 7, No 87 and No 91 (End-outline, front position (side), rear-position (side), stop, side marker, daytime running lamps)	The requirements set out in UNECE Regulations No 7, No 87 and No 91 shall not apply. However, the correct functioning of the lights shall be checked by the technical service.
23	UNECE Regulation No 6 (Direction indicators)	The requirements set out in UNECE Regulation No 6 shall not apply. However, the correct functioning of the lights shall be checked by the technical service.
24	UNECE Regulation No 4 (Rear registration plate lamps)	The requirements set out in UNECE Regulation No 4 shall not apply. However, the correct functioning of the lights shall be checked by the technical service.
25	UNECE Regulations No 98, No 112 and No 123 (Headlamps (including bulbs))	(a) The illumination produced by the passing beam of the headlamps fitted to the vehicle shall be checked under the provisions of paragraph 6 of UNECE Regulation No 112 concerning headlamps emitting an asymmetrical passing beam. The tolerances included in Annex 5 to that Regulation may be referred to for that purpose. (b) The same requirement shall apply to the passing beam of headlamps covered by UNECE Regulation No 98 or No 123.
26	UNECE Regulation No 19 (Front fog lamps)	The provisions of UNECE Regulation No 19 shall be waived. However, the correct functioning of the lights if fitted shall be checked by the technical service.
27	Regulation (EU) No 1005/2010 (Towing hooks)	The requirements of Regulation (EU) No 1005/2010 shall be waived.
28	UNECE Regulation No 38 (Rear fog lamps)	The provisions of UNECE Regulation No 38 shall be waived. However, the correct functioning of the lights shall be checked by the technical service.
29	UNECE Regulation No 23 (Reversing lamps)	The provisions of UNECE Regulation No 23 shall be waived. However, the correct functioning of the lights if fitted shall be checked by the technical service.
30	UNECE Regulation No 77	The provisions of UNECE Regulation No 77 shall be waived. However, the correct functioning of the lights if fitted shall be

	(Parking lamps)	checked by the technical service.
31	UNECE Regulation No 16 (Seat belts and restraint systems)	*Components* (a) Seat belts shall not be required to be type-approved in accordance with UNECE Regulation No 16. (b) However, each seat belt shall bear an identification label. (c) The indications on the label shall be consistent with the decision concerning seat belt anchorages (Re: entry 19). *Installation requirements* (a) The vehicle shall be fitted with seat belts in accordance with the requirements set out in Annex XVI to UNECE Regulation No 16. (b) Where a number of seat belts have to be retrofitted in accordance with point (a), they shall be of an approved type in accordance with UNECE Regulation No 16.
33	UNECE Regulation No 121 (Identification of controls, tell-tales and indicators)	(a) The symbols including the colour of their corresponding tell-tales the presence of which is mandatory by virtue of UNECE Regulation No 121 shall comply with that UNECE Regulation. (b) Where this is not the case, the technical service shall verify that the symbols, tell-tales and indicators fitted to the vehicle provide the driver with comprehensible information about the operation of the controls in question.
34	Regulation (EU) No 672/2010 (Defrost/Demist)	The vehicle shall be equipped with adequate windscreen defrosting and windscreen demisting devices.
35	Regulation (EU) No 1008/2010 (Wash/Wipe)	The vehicle shall be equipped with adequate windscreen washing and windscreen wiping devices.
36	UNECE Regulation No 122 (Heating systems)	(a) The passenger compartment shall be fitted with a heating system. (b) Combustion heaters and their installation shall comply with Annex 7 to UNECE Regulation No 122. In addition, LPG combustion heaters and LPG heating systems shall fulfil the requirements set out in Annex 8 to UNECE Regulation No 122. (c) Additional heating systems that are retrofitted shall comply with the requirements set out in UNECE Regulation No 122.

41a	Regulation (EC) No 595/2009 Emissions (Euro VI) heavy-duty vehicles – OBD	*Tailpipe emissions* (a) A test shall be conducted in accordance with Annex III to Regulation (EU) No 582/2011 using the deterioration factors set out in point 3.6.1. of Annex VI to Regulation (EU) No 582/2011. (b) The limits to be applied shall be those set out in the table of Annex I to Regulation (EC) No 595/2009. (c) The fuel to be used for the test shall be the reference fuel as prescribed in Annex IX to Regulation (EU) No 582/2011. *CO_2 emissions* The CO_2 emissions and fuel consumption shall be determined in accordance with Annex VIII to Regulation (EU) No 582/2011. *OBD* (a) The vehicle shall be fitted with an OBD system. (b) The OBD-interface must be able to communicate with an external OBD scan-tool as described in Annex X to Regulation (EU) No 582/2011. *Requirements to ensure the correct operation of NO_x control measures* The vehicle shall be fitted with a system ensuring the correct operation of NO_x control measures in accordance with Annex XIII to Regulation (EU) No 582/2011. *Power measurement* (a) The applicant shall submit a statement from the manufacturer stating the maximum engine power output in Kw as well as the corresponding regime (b) An engine power output curve providing the same information may alternatively be provided by the applicant.
45	UNECE Regulation No 43	*Components* (a) The glazing shall be made either of tempered or laminated safety glass. (b) Fitting of plastic glazing shall be permitted only on locations situated behind the 'B' pillar. (c) Glazing shall not be required to be approved under UNECE Regulation No 43. *Installation* (a) The installation requirements set out in Annex 21 to UNECE Regulation No 43 shall apply. (b) No tinted films that reduce the regular light transmission under the required minimum shall be permitted on the windscreen and on the glazing located in front of the 'B' pillar.
46	Commission Regulation (EU) 458/2011 (Installation of tyres)	*Installation* (a) The dimensions, load-capacity index and speed category of the tyres shall fulfil the requirements of Commission Regulation (EU) 458/2011.

		(b) The speed category symbol of the tyre shall be compatible with the maximum design speed of the vehicle. (c) This requirement shall apply notwithstanding the presence of a speed limiter. (d) The maximum speed of the vehicle shall be stated by the vehicle manufacturer. However, the technical service may assess the maximum design speed of the vehicle by using the engine maximum power output, the maximum number of revolutions per minute and the data concerning the kinematic chain.
46B	UNECE Regulation No 30 (C1 tyres)	*Components* Tyres shall bear an 'E' type-approval mark.
46D	UNECE Regulation No 117 (tyre rolling sound emissions, adhesion on wet surface and rolling resistance)	*Components* Tyres shall bear an 'E' type-approval mark.
46D	Regulation (EC) No 661/2009 UNECE Regulation No 64 (temporary use spare unit, run-flat tyres, tyre rolling sound emissions, adhesion on wet surface and rolling resistance)	*Components* Tyres shall bear an 'E' type-approval mark. The fitting of TPMS shall not be required
48	Regulation (EU) No 1230/2012 (Masses and dimensions)	(a) The requirements of Annex I, Part A to Regulation (EU) No 1230/2012 shall be fulfilled. However, the requirements set out in point 5 of Part A of Annex I do not need to be fulfilled. (b) For the purposes of point (a) the masses to be considered are the following: — the mass in running order as defined in Article 2(4) of Regulation (EU) No 1230/2012 as measured by the technical service, and — the maximum laden masses either stated by the vehicle manufacturer or shown on the manufacturer's plate, including stickers or information available in the owner's manual. Those masses shall be regarded as the technically permissible maximum laden masses. (c) Technical changes made by the applicant in order to decrease the maximum technically permissible laden mass of the vehicle to 3,5 tonnes or less, so that the vehicle may be granted individual vehicle approval shall not be permitted. (d) No exemption shall be permitted in respect of the maximum permissible dimensions.
49	UNECE Regulation No 61 (External projections of cabs)	(a) The general requirements set out in section 5 of UNECE Regulation No 17 shall be fulfilled. (b) At the discretion of the technical service, the requirements set out in paragraphs 6.1, 6.5, 6.6, 6.7, 6.8 and 6.11 of

		UNECE Regulation No 17 shall be fulfilled.
50	UNECE Regulation No 55 (Couplings)	*Separate technical units* (a) OEM couplings intended for towing a trailer of which the maximum mass does not exceed 1 500 kg shall not be required to be type-approved under UNECE Regulation No 55. (b) A coupling is deemed OEM equipment where it is described in the owner's manual or in an equivalent supporting document provided to the buyer by the vehicle manufacturer. (c) Where such coupling is approved with the vehicle, an appropriate text shall be included in the approval certificate stating that the owner is responsible for ensuring compatibility with the coupling device fitted to the trailer. (d) Couplings other than those referred to in point (a), as well as couplings that are retrofitted, shall be type-approved in accordance with UNECE Regulation No 55. *Installation on the vehicle* The technical service shall check that the installation of the coupling devices comply with paragraph 6 to UNECE Regulation No 55.
54	UNECE Regulation No 95 (Side impact)	(a) The applicant shall submit a statement from the manufacturer establishing that the particular vehicle, of which the VIN has to be specified, complies with at least one of the following: — UNECE Regulation No 95, — FMVSS No 214 (Side impact protection), — Article 18 of JSRRV. (b) A test in accordance with section 5 of UNECE Regulation No 95 may be conducted on a production vehicle at the request of the applicant. (c) The test shall be conducted by a technical service that been designated for carrying out this test. A detailed report shall be issued by that technical service to the applicant.
56	UNECE Regulation No 105 Vehicles intended for the transport of dangerous goods	Vehicles intended for the transport of dangerous goods shall comply with UNECE Regulation No 105.
58	Regulation (EC) No 78/2009 (Pedestrian protection)	*Brake assist* Vehicles shall be fitted with an electronic antilock braking system acting on all wheels. *Pedestrian protection* Until 24 February 2018, the requirements of Regulation (EC) No 78/2009 shall not apply to vehicles of which the maximum mass does not exceed 2 500 kg and until 24 August 2019 to vehicles of which the maximum mass exceeds 2 500 kg. *Frontal protection systems* However, frontal protection systems installed on the vehicle shall be type-approved in accordance with Regulation (EC) No 78/2009 and their installation shall comply with the requirements set out in section 6 of Annex I to that Regulation.
59	Directive 2005/64/EC	The requirements of that Directive shall not apply.

	(Recyclability)	
61	Directive 2006/40/EC (Air-conditioning system)	The requirements of that Directive shall apply.

Explanatory notes to Appendix 2

1. Abbreviations used in this Appendix:
'OEM': original equipment provided by the manufacturer
'FMVSS': Federal Motor Vehicle Safety Standard of the U.S Department of Transportation
'JSRRV': Japan Safety Regulations for Road Vehicles
'SAE': Society of Automotive Engineers
'CISPR': Comité international spécial des perturbations radioélectriques.

2. Remarks:

(a) the complete LPG or CNG installation shall be checked against the provisions of UNECE Regulations No 67, No 110 or No 115, as appropriate;

(b) the formula to be used for the assessment of CO_2 emissions shall be as follows:

Petrol engine and manual gearbox:
CO 2 = 0,047 m + 0,561 p + 56,621

Petrol engine and automatic gearbox:
CO 2 = 0,102 m + 0,328 p + 9,481

Petrol engine and hybrid electric:
CO 2 = 0,116 m – 57,147

Diesel engine and manual gearbox:
CO 2 = 0,108 m – 11,371

Diesel engine and automatic gearbox:
CO 2 = 0,116 m – 6,432

Where: CO 2 is the combined mass of CO 2 emissions in g/km, 'm' is the mass of the vehicle in running order in kg and 'p' the maximum engine power output in kW.

Combined mass of CO 2 shall be calculated with one decimal place, then rounded to the nearest whole number as follows:
(i) if the figure following the decimal point is below 5, the total is rounded down;
(ii) if the figure following the decimal point is equal to 5 or above 5, the total is rounded up;

(c) the formulæ to be used for the assessment of fuel consumption shall be as follows:

$CFC = CO\ 2 \times k^{-1}$

Where: CFC is the combined fuel consumption in l/100 km, CO 2 is the combined mass of CO 2 emissions in g/km after it has been rounded in accordance with the rule referred to in Remark (2 b), 'k' a coefficient equal to:

23,81 in the case of a petrol engine;

26,49 in the case of a diesel engine.

Combined fuel consumption shall be calculated with two decimal places, then rounded as follows:

(i) if the figure following the first decimal is below 5, the total is rounded down;

(ii) if the figure following the first decimal is equal to 5 or above 5, the total is rounded up.

PART II

List of UNECE regulations recognised as an alternative to the Directives or Regulations referred to in Part I

Where reference is made to a separate Directive or Regulation in the table of Part I, an approval granted under the following UNECE regulations which the Community has accepted as a Contracting Party to the United Nations Economic Commission for Europe 'Revised 1958 Agreement' by virtue of Council Decision 97/836/EC[29], or subsequent Council Decisions as referred to in Article 3(3) of that Decision, shall be considered as equivalent to an EU type-approval granted under the relevant separate Directive or Regulation.

Any further amendment to the UNECE regulations listed in the following table [30] shall also be deemed to be equivalent to an EU type-approval, subject to the Decision referred to in Article 4(2) of Decision 97/836/EC.

	Subject	Basic UNECE Regulation number	Series of amendments
1 (*)	Permissible sound level	51	02
	Replacement silencing systems	59	00
58.	Pedestrian protection	127	00
	Braking (brake assist)	13-H	00 (Supplement 9 and above)
65	Advanced emergency braking system	131	01
66	Lane departure warning system	130	00

Where the separate Directive or Regulation contains installation requirements, these apply also to components and separate technical units approved in accordance with UNECE regulations.

(*) The numbering of the entries in this table refers to the numbering used in the table of Part I.

29 Council Decision 97/836/EC of 27 November 1997 with a view to accession by the European Community to the Agreement of the United Nations Economic Commission for Europe concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted to and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions ('Revised 1958 Agreement') (OJ L 346, 17.12.1997, p. 78).

30 For subsequent amendments, see UNECE TRANS/WP.29/343.

PART III

List of regulatory acts setting out the requirements for the purpose of EU type-approval of special purpose vehicles

Appendix 1

Motor-caravans, ambulances and hearses

Item	Subject	Regulatory act reference	$M_1 \leq 2500$ kg(*)	$M_1 > 2500$ kg(*)	M_2	M_3
1	Sound level	Directive 70/157/EEC	H	G+H	G+H	G+H
1A	Sound level	Regulation (EU) No 540/2014	H	G+H	G+H	G+H
2	Emissions (Euro 5 and 6) light duty vehicles / access to information	Directive 70/220/EEC	Q(1)	G + Q(1)	G + Q(1)	
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	F (2)	F (2)	F (2)	F (2)
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58	X	X	X	X
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X	X	X	X
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79	X	G	G	G
6A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	X		
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11	B	G+B		
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	X	X	X	X

Item	Subject	Regulatory act reference	$M_1 \leq 2500$ kg(*)	$M_1 > 2500$ kg(*)	M2	M3
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	X	G	G	G
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13-H	X ([4])	G+A_1		
9B	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13			G([3])	G([3])
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10	X	X	X	X
12A	Interior fittings	Regulation (EC) No 661/2009 UNECE Regulation No 21	C	G+C		
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 18			G ([4A])	G ([4A])
13B	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 116	X	G		
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UNECE Regulation No 12	X	G		
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17	D	G+D	G+D ([4B])	G+D ([4B])
15B	Seats of large passenger vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 80			X	X

16A	External projections	Regulation (EC) No 661/2009 UNECE Regulation No 26	X for the cab; A+Z for the remaining part	G for the cab; A+Z for the remaining part		
Item	Subject	Regulatory act reference	$M_1 \leq 2500$ kg(*)	$M_1 > 2500$ kg(*)	M2	M3
17A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	X	X	X
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39	X	X	X	X
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X	X	X	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14	D	G+L	G+L	G+L
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48	A+N	A+G+N for the cab; A+N for the remaining part	A+G+N for the cab; A+N for the remaining part	A+G+N for the cab; A+N for the remaining part
21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3	X	X	X	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7	X	X	X	X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87	X	X	X	X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91	X	X	X	X
23A	Direction indicators for power-driven vehicles and	Regulation (EC)	X	X	X	X

	their trailers	No 661/2009 UNECE Regulation No 6				

Item	Subject	Regulatory act reference	$M_1 \leq 2500$ kg(*)	$M_1 > 2500$ kg(*)	M2	M3
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 4	X	X	X	X
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31	X	X	X	X
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37	X	X	X	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98	X	X	X	X
25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99	X	X	X	X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112	X	X	X	X
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123	X	X	X	X
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19	X	X	X	X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	E	E	E	E
28A	Rear fog lamps for power-driven vehicles and their	Regulation (EC) No 661/2009	X	X	X	X

	trailers	UNECE Regulation No 38				

Item	Subject	Regulatory act reference	$M_1 \leq 2500$ kg(*)	$M_1 > 2500$ kg(*)	M2	M3
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23	X	X	X	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 77	X	X	X	X
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	D	G+M	G+M	G+M
32A	Forward field of vision	Regulation (EC) No 661/2009 UNECE Regulation No 125	X	G		
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121	X	X	X	X
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	X	G ([5])	([5])	([5])
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	X	G ([6])	([6])	([6])
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122	X	X	X	X
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010	X	G		
38A	Head restraints (headrests), whether or not incorporated in vehicle seats	Regulation (EC) No 661/2009 UNECE Regulation No 25	D	G + D		

44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	X	X		

Item	Subject	Regulatory act reference	M1 ≤ 2500 kg(*)	M1 > 2500 kg(*)	M2	M3
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	J	G+J	G+J	G+J
46	Tyres	Directive 92/23/EEC	X	G	G	G
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X	G	G	G
46B	Pneumatic tyres for motor vehicles and their trailers (Class C1)	Regulation (EC) No 661/2009 UNECE Regulation No 30	X	G		
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 54	—	G	G	G
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	X	G	G	G
46E	Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UNECE Regulation No 64	X	G		
47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 89			X	X

Item	Subject	Regulatory act reference	M1 ≤ 2500 kg(*)	M1 > 2500 kg(*)	M2	M3
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012			X	X
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	X ([10])	G ([10])	G ([10])	G ([10])
51A	Burning behaviour of materials used in the interior construction of certain categories of motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 118				G for the cab; X for the remaining part
52A	M_2 and M_3 vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 107			A	A
52B	Strength of the superstructure of large passenger vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 66			A	A
53A	Protection of occupants in the event of a frontal collision	Regulation (EC) No 661/2009 UNECE Regulation No 94	N/A	N/A		
54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UNECE Regulation No 95	N/A	N/A		
58	Pedestrian protection	Regulation (EC) No 78/2009	X	N/A However, any frontal protection systems supplied with the vehicle shall comply and shall be marked		
59	Recyclability	Directive 2005/64/EC	N/A	N/A		
61	Air-conditioning system	Directive 2006/40/EC	X	G ([14])		
62	Hydrogen system	Regulation (EC)	Q	G + Q	G + Q	G + Q

		No 79/2009				
Item	Subject	Regulatory act reference	M1 ≤ 2500 kg(*)	M1 > 2500 kg(*)	M2	M3
63	General safety	Regulation (EC) No 661/2009	X ([15])	X ([15])	X ([15])	X ([15])
64	Gear shift indicators	Regulation (EC) No 661/2009 Regulation (EU) No 65/2012	X	G		
65	Advanced emergency braking system	Regulation (EC) No 661/2009 Regulation (EU) No 347/2012			N/A ([16])	N/A ([16])
66	Lane departure warning system	Regulation (EC) No 661/2009 Regulation (EU) No 351/2012			N/A ([17])	N/A ([17])
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	X	X	X	X
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UNECE Regulation No 97	X	G		
69	Electrical safety	Regulation (EC) No 661/2009 UNECE Regulation No 100	X	X	X	X
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	X	X	X	X

([*]) Technically permissible maximum laden mass.

Additional requirements for ambulances

The patient compartment of ambulances shall comply with the requirements of EN 1789:2007 +A1: 2010 +A2:2014 on Medical vehicles and their equipment – Road ambulances with the exception of section 6.5, list of equipment. Proof of compliance shall be provided with a test report of a technical service. If a wheelchair space is foreseen, the requirements of Appendix 3 relating to the wheelchair tie down and occupant restraint systems shall apply.

Appendix 2

Armoured vehicles

Item	Subject	Regulatory act reference	M_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
1A	Sound level	Regulation (EU) No 540/2014	X	X	X	X	X	X				
2	Emissions (Euro 5 and 6) light duty vehicles/access to information	Regulation (EC) No 715/2007	A([1])	A([1])		A([1])	A([1])					
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	X ([2])	X ([2])	X ([2])	X ([2])	X ([2])	X ([2])	X	X	X	X
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58	X	X	X	X	A	A	X	X	X	X
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X	X	X	X	X	X	X	X	X	X
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79	X	X	X	X	X	X	X	X	X	X
6A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	X	X	X	X	X				
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11	X			X						
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	A+K	A+K	A+K	A+K	A+K	A+K				
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	A	A	A	A	A	A				
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13		X ([3])	X ([3])	X ([3])	X ([3])	X ([3])	X ([3])	X ([3])	X ([3])	X ([3])
9B	Braking of passenger cars	Regulation (EC) No 661/2009 UNECE Regulation No 13-H	X ([4])			X ([4])						
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE	X	X	X	X	X	X	X	X	X	X

		No 672/2010									
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	A	([6])	([6])	([6])	([6])	([6])			
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122	X	X	X	X	X	X	X	X	X	X
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010	X									
38A	Head restraints (headrests), whether or not incorporated in vehicle seats	Regulation (EC) No 661/2009 UNECE Regulation No 25	X									
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009	X ([9])	X ([9])	X	X ([9])	X ([9])	X				
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 73					X	X			X	X
43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011				X	X	X	X	X	X	X
44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	X									
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46	Tyres	Directive 92/23/EEC	A	A	A	A	A	A	A	A	A	A
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	A	A	A	A	A	A	A	A	A	A
46B	Pneumatic tyres for motor vehicles and their trailers (Class C1)	Regulation (EC) No 661/2009 UNECE Regulation No 30	A			A			A	A		
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 54		A	A	A	A	A			A	A
46D	Tyre rolling sound emissions	Regulation (EC) No 661/2009	A	A	A	A	A	A	A	A	A	A

Appendix 3

Wheelchair accessible vehicles

Item	Subject	Regulatory act	M_1
1A	Sound level	Regulation (EU) No 540/2014	$G+W_9$
2	Emissions (Euro 5 and 6) light duty vehicles/access to information	Regulation (EC) No 715/2007	$G+W_1$
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	$X+W_2$
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58	X
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79	G
6A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11	X
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	X
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	X
9B	Braking of passenger cars	Regulation (EC) No 661/2009 UNECE Regulation No 13-H	$G+A_1$
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10	X
12A	Interior fittings	Regulation (EC) No 661/2009 UNECE Regulation No 21	G+C
13B	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 116	X
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UNECE Regulation No 12	G
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17	$G+W_3$
16A	External projections	Regulation (EC) No 661/2009 UNECE Regulation No 26	$G+W_4$

17A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39	X
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14	$X+W_5$
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48	X
21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7	X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87	X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 6	X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 4	X
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31	X
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98	X
25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99	X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112	X
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123	X
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19	X

27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	E
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 38	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 77	X
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	$X+W_6$
32A	Forward field of vision	Regulation (EC) No 661/2009 UNECE Regulation No 125	G
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121	X
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	G([5])
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	G([6])
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122	X
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010	G
38A	Head restraints (headrests), whether or not incorporated in vehicle seats	Regulation (EC) No 661/2009 UNECE Regulation No 25	X
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009	$X+W_1$ ([9])
44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	$X+W_8$
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	G
46	Tyres	Directive 92/23/EEC	X
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X
46B	Pneumatic tyres for motor vehicles and their trailers (Class C1)	Regulation (EC) No 661/2009 UNECE Regulation No 30	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	X

46E	Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UNECE Regulation No 64	G([9A])
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	X([10])
53A	Protection of occupants in the event of a frontal collision	Regulation (EC) No 661/2009 UNECE Regulation No 94	N/A
54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UNECE Regulation No 95	N/A
58	Pedestrian protection	Regulation (EC) No 78/2009	G
59	Recyclability	Directive 2005/64/EC	N/A
61	Air-conditioning systems	Directive 2006/40/EC	G
62	Hydrogen system	Regulation (EC) No 79/2009	X
63	General Safety	Regulation (EC) No 661/2009	X([15])
64	Gear shift indicators	Regulation (EC) No 661/2009 Regulation (EU) No 65/2012	G
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	X
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UNECE Regulation No 97	X
69	Electric safety	Regulation (EC) No 661/2009 UNECE Regulation No 100	X
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	X

Additional requirements for testing the wheelchair tie down and occupant restraint system

The following section 1 and either section 2 or 3 shall apply.

1. Definitions

1.1. Surrogate wheelchair (SWC) means a rigid, re-usable test wheelchair, as defined in section 3 of ISO 10542-1:2012.

1.2. Point P means a representation of the position of the wheelchair occupant's hip when seated in the SWC, as defined in section 3 of ISO 10542-1:2012.

2. General requirements

2.1. Each wheelchair location shall be provided with anchorages to which a wheelchair tie-down and occupant restraint system (WTORS) shall be fitted.

2.2. The wheelchair occupant’s lower belt anchorages shall be located in accordance with UNECE Regulation No 14-07, paragraph 5.4.2.2, relative to Point P on the SWC, when placed in the travelling position designated by the manufacturer. The upper actual anchorage(s) shall be located at least 1 100 mm above the horizontal plane passing through the points of contact between the rear tyres of the SWC and the vehicle floor. This

condition shall still be satisfied after the test carried out according to point 3 of this Appendix.

2.3. An assessment shall be made of the WTORS occupant belt to ensure compliance with the provisions of UNECE Regulation No 16-06, paragraphs 8.2.2 to 8.2.2.4 and 8.3.1 to 8.3.4.

2.4. The minimum number of ISOFIX child seat anchorages need not to be provided. In the case of a multi-stage type-approval where an ISOFIX anchorage system has been affected by the conversion, either the system shall be re-tested or the anchorages shall be rendered unusable. In the latter case the ISOFIX labels shall be removed and appropriate information shall be given to the vehicle purchaser.

3. Static in-vehicle testing

3.1. Wheelchair occupant restraint anchorages

3.1.1. The wheelchair occupant restraint anchorages shall resist the static forces prescribed for occupant restraint anchorages in UNECE Regulation No 14-07, simultaneously with the static forces applied to the wheelchair tie-down anchorages as specified in point 3.2 of this Appendix.

3.2. Wheelchair tie-down anchorages

The wheelchair tie-down anchorages shall resist the following forces, for at least 0.2 seconds, applied via the SWC (or a suitable surrogate wheelchair having a wheelbase, seat height and tie-down attachment points in accordance with the specification for the SWC), at a height of 300 +/– 100 mm from the surface on which the SWC rests:

3.2.1. In the case of a forward-facing wheelchair, a simultaneous force, coincident with the force applied to the occupant restraint anchorages, of 24,5 kN, and

3.2.2. a second test applying a static force of 8,2 kN directed towards the rear of the vehicle.

3.2.3. In the case of a rearward-facing wheelchair, a simultaneous force, coincident with the force applied to the occupant restraint anchorages, of 8,2 kN, and

3.2.4. a second test applying a static force of 24,5 kN directed towards the front of the vehicle.

3.3. Components of the system

3.3.1. All components of the WTORS shall meet the relevant requirements of ISO 10542-1:2012. However, the dynamic test specified in Annex A and paragraphs 5.2.2 and 5.2.3 of ISO 10542-1:2012 shall be carried out on the complete WTORS using the vehicle anchorage geometry instead of the test geometry specified in Annex A of ISO 10542-1:2012. This may be carried out within the vehicle structure or on a surrogate structure representative of the vehicle's WTORS anchorage geometry. The location of each anchorage shall lie within the tolerance provided for in paragraph 7.7.1 of UNECE Regulation No 16-06.

3.3.2. Where the occupant restraint part of the WTORS is approved according to UNECE Regulation No 16-06, it shall be subject to the dynamic test of the complete WTORS specified in paragraph 3.3.1 of this appendix but the requirements of paragraphs 5.1, 5.3 and 5.4 of ISO10542-1:2012 shall be considered to have been met.

4. Dynamic in-vehicle testing

4.1. The full assembly of the WTORS system shall be tested by an in-vehicle dynamic test in accordance with paragraphs 5.2.2 and 5.2.3 and Annex A of ISO 10542-1:2012, testing all components/anchorages simultaneously, using a vehicle body-in-white or representative

structure.

4.2. The component parts of the WTORS shall meet the relevant requirements of ISO10542-1:2012, paragraphs 5.1, 5.3 and 5.4. These requirements shall be deemed to have been met in respect of the occupant restraint if it is approved according to UNECE Regulation No 16-06.

Appendix 4

Other special purpose vehicles
(including special group, multi-equipment carrier and trailer caravans)

The exemptions provided for in this appendix are only permitted if the manufacturer demonstrates to the satisfaction of the approval authority that the vehicle, due to the special function, cannot meet all the requirements set out in Part I of Annex IV.

Item	Subject	Reference to regulatory act	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
1A	Sound level	Regulation (EU) No 540/2014		H	H	H	H	H			
2	Emissions (Euro 5 and 6) light duty vehicles/access to information	Regulation (EC) No 715/2007	Q([1])		Q+V_1 ([1])	Q+V_1 ([1])					
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	F	F	F	F	F	X	X	X	X
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58	X	X	A	A	A	X	X	X	X
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	A+R	A+R	A+R	A+R	A+R	A+R	A+R	A+R	A+R
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79	X	X	X	X	X	X	X	X	X
6A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	X	B	B	B				
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11			B						
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	X	X	X	X	X				
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	X	X	X	X	X				

9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13	X ([3])	X ([3])	X ([3])	X+U_1 ([3])	X+U_1 ([3])	X	X	X ([3])	X ([3])
9B	Braking of passenger cars	Regulation (EC) No 661/2009 UNECE Regulation No 13-H			X ([4])						
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10	X	X	X	X	X	X	X	X	X
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 18	X([4A])	X([4A])		X([4A])	X([4A])				
13B	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 116			X						
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UNECE Regulation No 12			X						
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17	D([4B])	D([4B])	D	D	D				
15B	Seats of large passenger vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 80	D	D							
17A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	X	X	X	X				
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39	X	X	X	X	X				
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X	X	X	X	X	X	X	X	X

19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14	D	D	D	D	D				
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48	A+N	A+N	A+N	A+N	A+N	A+N	A+N	A+N	A+N
21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3	X	X	X	X	X	X	X	X	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7	X	X	X	X	X	X	X	X	X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87	X	X	X	X	X				
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91	X	X	X	X	X	X	X	X	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 6	X	X	X	X	X	X	X	X	X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 4	X	X	X	X	X	X	X	X	X
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31	X	X	X	X	X				
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37	X	X	X	X	X	X	X	X	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98	X	X	X	X	X				

25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99	X	X	X	X	X				
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112	X	X	X	X	X				
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123	X	X	X	X	X				
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19	X	X	X	X	X				
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	A	A	A	A	A				
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 38	X	X	X	X	X	X	X	X	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23	X	X	X	X	X	X	X	X	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 77	X	X	X	X	X				
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	D	D	D	D	D				
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121	X	X	X	X	X				
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	([5])	([5])	([5])	([5])	([5])				

35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	([6])	([6])	([6])	([6])	([6])				
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122	X	X	X	X	X	X	X	X	X
38A	Head restraints (headrests), whether or not incorporated in vehicle seats	Regulation (EC) No 661/2009 UNECE Regulation No 25	X								
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009	H ([9])	H	H ([9])	H ([9])	H				
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 73				X	X			X	X
43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011			X	X	X	X	X	X	X
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	J	J	J	J	J	J	J	J	J
46	Tyres	Directive 92/23/EEC	X	X	X	X	X	X	X	X	X
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X	X	X	X	X	X	X	X	X
46B	Pneumatic tyres for motor vehicles and their trailers (Class C1)	Regulation (EC) No 661/2009 UNECE Regulation No 30			X			X	X		
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 54	X	X	X	X	X			X	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	X	X	X	X	X	X	X	X	X

46E	Temporary-use spare unit, run-flat tyres/system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UNECE Regulation No 64			X ([9A])						
47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 89	X	X		X	X				
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	X	X	X	X	X	X	X	X	X
49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UNECE Regulation No 61			X	X	X				
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	X([10])	X([10])	X([10])	X([10])	X([10])	X	X	X	X
50B	Close-coupling device (CCD); fitting of an approved type of CCD	Regulation (EC) No 661/2009 UNECE Regulation No 102				X([10])	X([10])			X([10])	X([10])
51A	Burning behaviour of materials used in the interior construction of certain categories of motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 118		X							
52A	M_2 and M_3 vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 107	X	X							
52B	Strength of the superstructure of large passenger vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 66	X	X							
54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UNECE Regulation No 95			A						
56A	Vehicles for the carriage of dangerous goods	Regulation (EC) No 661/2009 UNECE Regulation No 105			X ([13])	X ([13])	X ([13])	X([13])	X([13])	X([13])	X([13])

57A	Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	Regulation (EC) No 661/2009 UNECE Regulation No 93				X	X				
58	Pedestrian protection	Regulation (EC) No 78/2009			N/A ([2])						
59	Recyclability	Directive 2005/64/EC			N/A						
61	Air-conditioning systems	Directive 2006/40/EC			X ([14])						
62	Hydrogen system	Regulation (EC) No 79/2009	X	X	X	X	X				
63	General Safety	Regulation (EC) No 661/2009	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])	X([15])
65	Advanced emergency braking system	Regulation (EC) No 661/2009 Regulation (EU) No 347/2012	N/A	N/A		N/A	N/A				
66	Lane departure warning system	Regulation (EC) No 661/2009 Regulation (EU) No 351/2012	N/A	N/A		N/A	N/A				
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	X	X	X	X	X				
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UNECE Regulation No 97			X						
69	Electric safety	Regulation (EC) No 661/2009 UNECE Regulation No 100	X	X	X	X	X				
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	X	X	X	X	X				

Appendix 5

Mobile cranes

Item	Subject	Reference to regulatory act	N_3
1A	Sound level	Regulation (EU) No 540/2014	$T + Z_1$
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	X
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58	A
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79	X Crab steering allowed
6A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	A
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	X
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	X
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13	U ([3])
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10	X
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 18	X ([4A])
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17	X
17A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39	X
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14	X
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48	A+Y

21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7	X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87	X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 6	X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 4	X
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31	X
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98	X
25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99	X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112	X
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123	X
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19	X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	A
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 38	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 77	X
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	X

33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121	X
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	([5])
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	([6])
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122	X
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009	V
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 73	A
43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011	Z_1
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	J
46	Tyres	Directive 92/23/EEC	X
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 54	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	X
47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 89	X
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	A
49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UNECE Regulation No 61	A
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	X ([10])
50B	Close-coupling device (CCD); fitting of an approved type of CCD	Regulation (EC) No 661/2009 UNECE Regulation No 102	X ([10])
57A	Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	Regulation (EC) No 661/2009 UNECE Regulation No 93	X
62	Hydrogen system	Regulation (EC) No 79/2009	X
63	General Safety	Regulation (EC) No 661/2009	X ([15])

65	Advanced emergency braking system	Regulation (EC) No 661/2009 Regulation (EU) No 347/2012	N/A ([16])
66	Lane departure warning system	Regulation (EC) No 661/2009 Regulation (EU) No 351/2012	N/A ([17])
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	X
69	Electric safety	Regulation (EC) No 661/2009 UNECE Regulation No 100	X
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	X

Appendix 6

Exceptional load transport trailers

Item	Subject	Reference to regulatory act	N_3	O_4
1	Permissible sound level	Directive 70/157/EEC	T	
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UNECE Regulation No 34	X	X
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58	A	A
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X	A+R
5A	Steering equipment	Regulation (EC) No 661/2009 UNECE Regulation No 79	X Crab steering allowed	X
6A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28	X	
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46	X	
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UNECE Regulation No 13	U ([3])	X ([3])
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10	X	X
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UNECE Regulation No 18	X ([4A])	
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UNECE Regulation No 17	X	
17A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UNECE Regulation No 39	X	
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UNECE Regulation No 14	X	

20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48	X	A+N
21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 3	X	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 7	X	X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 87	X	
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 91	X	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 6	X	X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 4	X	X
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UNECE Regulation No 31	X	
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 37	X	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UNECE Regulation No 98	X	
25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 99	X	
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UNECE Regulation No 112	X	
25F	Adaptive front-lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 123	X	
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UNECE Regulation No 19	X	
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	A	
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 38	X	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UNECE Regulation No 23	X	X

30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 77	X	
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UNECE Regulation No 16	X	
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121	X	
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	([5])	
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	([6])	
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122	X	
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009	X ([9])	
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 73	X	A
43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011	X	A
45	Safety glazing	Directive 92/22/EEC	X	
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43	X	
46	Tyres	Directive 92/23/EEC	X	I
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X	I
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 54	X	I
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C1, C2 and C3)	Regulation (EC) No 661/2009 UNECE Regulation No 117	X	I
47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 89	X	
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	A	A
49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UNECE Regulation No 61	A	
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55	X([10])	X

50B	Close-coupling device (CCD); fitting of an approved type of CCD	Regulation (EC) No 661/2009 UNECE Regulation No 102	X([10])	X([10])
56A	Vehicles for the carriage of dangerous goods	Regulation (EC) No 661/2009 UNECE Regulation No 105	X([13])	X([13])
57A	Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	Regulation (EC) No 661/2009 UNECE Regulation No 93	A	
62	Hydrogen system	Regulation (EC) No 79/2009	X	
63	General Safety	Regulation (EC) No 661/2009	X ([15])	X([15])
65	Advanced emergency braking system	Regulation (EC) No 661/2009 Regulation (EU) No 347/2012	N/A ([16])	
66	Lane departure warning system	Regulation (EC) No 661/2009 Regulation (EU) No 351/2012	N/A ([17])	
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 67	X	
69	Electric safety	Regulation (EC) No 661/2009 UNECE Regulation No 100	X	
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 110	X	

Explanatory Notes on the applicability of the requirements

X The requirements set out in the relevant regulatory act are applicable. The series of amendments of the UNECE regulations that apply on a compulsory basis are listed in Annex IV to Regulation (EC) No 661/2009. The series of amendments adopted subsequently are accepted as an alternative. Member States may grant extensions to existing type-approvals granted in accordance with the Directives repealed by Regulation (EC) 661/2009 under the conditions laid down in Article 13(14) of that Regulation.

N/A This regulatory act is not applicable to this vehicle (no requirements).

([1]) For vehicles with a reference mass not exceeding 2 610 kg. At the manufacturer's request, Regulation (EC) No 715/2007 may apply to vehicles with a reference mass not exceeding 2 840 kg.

With regard to access to information, for other parts (e.g. living compartment) than the base vehicle, it is sufficient that the manufacturer provides access to vehicle repair and maintenance information in a readily accessible and prompt manner.

([2]) In case of vehicles equipped with a LPG or CNG installation, a vehicle type-approval in accordance with UNECE Regulation No 67 or UNECE Regulation No 110 is required.

([3]) The fitting of an electronic stability control ('ESC') system is required by Article 12 and Article 13 of Regulation (EC) No 661/2009. However, in accordance with UNECE Regulation No 13, the fitting of an ESC system is not required for special purpose vehicles of categories M_2, M_3, N_2 and N_3 and for vehicles for exceptional load transport and trailers with areas for standing passengers. N_1 vehicles may be approved in accordance with UNECE Regulations No 13 or No 13-H.

([4]) The fitting of an ESC system is required by Article 12 and Article 13 of Regulation (EC) No 661/2009. Therefore, the requirements set out in Part A of Annex 9 to UNECE Regulation No 13-H shall be fulfilled. N_1 vehicles may be approved in accordance with UNECE Regulation No 13 or UNECE Regulation No 13-H.

([4A]) If fitted, the protective device shall fulfil the requirements set out in UNECE Regulation No 18.

([4B]) This Regulation applies to seats not falling within the scope of UNECE Regulation No 80. For other options, see Article 2 of Regulation (EC) No 595/2009.

([5]) Vehicles of categories other than M_1 do not need to fully comply with Regulation (EU) No 672/2010 but shall be fitted with a windscreen defrosting and demisting device.

([6]) Vehicles of categories other than M_1 do not need to fully comply with Regulation (EU) No 1008/2010 but shall be fitted with a windscreen washing and wiping devices.

([8]) For vehicles with a reference mass exceeding 2 610 kg and that did not benefit from the possibility offered in note ([1]).

([9]) For vehicles with a reference mass exceeding 2 610 kg that are not type-approved (at the manufacturer's request and provided their reference mass does not exceed 2 840 kg) under Regulation (EC) No 715/2007. For other parts than the base vehicle, it is sufficient that the manufacturer provides access to vehicle repair and maintenance information in a readily accessible and prompt manner

([9A]) Applies only where such vehicles are fitted with equipment covered by UNECE Regulation No 64. Tyre pressure monitoring system for M1 vehicles applies on a

compulsory basis in accordance with Article 9(2) of Regulation (EC) No 661/2009.

([10]) Applies only to vehicles equipped with coupling(s).

([11]) Applies to vehicles with a technically permissible maximum laden mass not exceeding 2,5 tonnes.

([12]) Only applicable to vehicles where the 'Seating Reference Point ("R" point)' of the lowest seat is not more than 700 mm above the ground level.

([13]) Applies only where the manufacturer applies for type-approval of vehicles intended for the transport of dangerous goods.

([14]) Applies only for vehicles of category N_1, class I (reference mass ≤ 1 305 kg)

([15]) At the request of the manufacturer, a type-approval may be granted under this item, as an alternative to obtaining type-approvals under each individual item covered by Regulation (EC) No 661/2009.

([16]) The fitting of an advanced emergency braking system is not required for special purpose vehicles in accordance with Article 1 of Regulation (EU) No 347/2012.

([17]) The fitting of a lane departure warning system is not required for special purpose vehicles in accordance with Article 1 of Regulation (EU) No 351/2012.

A The approval authority may only grant exemption(s) if the manufacturer demonstrates that the vehicle cannot meet the requirements due to its special purpose. The exemptions granted are to be described on the vehicle type-approval certificate and the certificate of conformity (remark –item 52 of the CoC).

A_1 The fitting of ESC is not mandatory. In the case of multi-stage type-approvals, where the modifications made at a particular stage are likely to affect the function of the base vehicle's ESC system, the manufacturer may either disable the system or demonstrate that the vehicle has not been rendered unsafe or unstable. This may be demonstrated, e.g., by performing rapid double lane-change manoeuvres in each direction at 80 km/h with sufficient severity to cause intervention by the ESC system. These interventions are to be well-controlled and should improve the stability of the vehicle. The technical service has the right to request further testing if deemed necessary.

B Application limited to doors giving access to the seats designated for normal use where the vehicle is used on a public road and where the distance between the R point of the seat and the average plane of the door surface, measured perpendicular to the longitudinal medium plane of the vehicle, does not exceed 500 mm.

C Application limited to that part of the vehicle in front of the rearmost seat designated for normal use where the vehicle is used on a public road and also limited to the head impact zone as defined in the relevant regulatory act.

D Application limited to seats designated for normal use where the vehicle is used on a public road. Seats that are not designated for use where the vehicle is used on the public road are to be clearly identified to users either by means of a pictogram or a sign with an appropriate text. The luggage retention requirements of UNECE Regulation No 17 do not apply.

E Front only.

F Modification to the routing and length of the refuelling duct and re-positioning of the tank inboard is permissible.

G In case of multi-stage type-approval, requirements according to the category of the

base/incomplete vehicle (e.g. the chassis of which was used to build the special purpose vehicle) may also be used.

H Modification of exhaust system length after the last silencer not exceeding 2 m is permissible without any further test.

I Tyres are to be type-approved in accordance with the requirements set out in UNECE Regulation No 54 even if the design speed of the vehicle is less than 80 km/h. The load capacity may be adjusted in relation to the maximum design speed of the trailer in agreement with the tyre manufacturer.

J For all window glazing other than driver's cab glazing (windshield and side glasses), the material may be either of safety glass or rigid plastic glazing.

K Additional panic alarm devices are permitted.

L Application limited to seats designated for normal use where the vehicle is used on a public road. At least anchorages for lap belts are required in the rear seating positions. Seats that are not designated for use where the vehicle is used on a public road are to be clearly identified to users either by means of a pictogram or a sign with an appropriate text. ISOFIX is not required on ambulances and hearses.

M Application limited to seats designated for normal use where the vehicle is used on a public road. At least lap belts are required in all rear seating positions. Seats that are not designated for use when the vehicle is used on a public road are to be clearly identified to users either by means of a pictogram or a sign with an appropriate text. ISOFIX is not required on ambulances and hearses.

N Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected.

Q Modification of exhaust system length after the last silencer not exceeding 2 m is permissible without any further test. An EU type-approval issued to the most representative base vehicle remains valid irrespective of change in the reference weight.

R Provided that the registration plates of all Member States can be mounted and remain visible.

S The light transmission factor is at least 60 % and the “A” pillar obstruction angle is not more than 10 degrees.

T Test to be performed only with the complete/completed vehicle. The vehicle can be tested in accordance with Directive 70/157/EEC. Concerning point 5.2.2.1 of Annex I to Directive 70/157/EEC, the following limit values are applicable:

(a) 81 dB(A) for vehicles with an engine power of less than 75 kW;

(b) 83 dB(A) for vehicles with an engine power of not less than 75 kW but less than 150 kW;

(c) 84 dB(A) for vehicles with an engine power of not less than 150 kW.

U Test to be performed only with the complete/completed vehicle. Vehicles up to 4 axles are to comply with all the requirements laid down in the relevant regulatory acts Derogations are admitted for vehicles having more than 4 axles, provided that

(a) they are justified by the particular construction;

(b) all the braking performances, related to parking, service and secondary braking laid down in the relevant regulatory act are fulfilled.

U_1 ABS is not mandatory for vehicles with hydrostatic drive.

V Alternatively, Directive 97/68/EC may also apply.

V_1 Alternatively, Directive 97/68/EC may also apply to vehicles with hydrostatic drive.

W_0 Modification of exhaust system length is permitted without any further test, provided that the back pressure is similar. If a new test is required, an extra 2dB(A) above the applicable limit is allowed.

W_1 Modification in the exhaust system is permitted without any further test of tailpipe emissions and CO_2/fuel consumption provided that the emission control devices, including particulate filters (if any), are not affected. If the evaporative control devices are kept as fitted by the manufacturer of the base vehicle, no new evaporative test is required on the modified vehicle.

An EU type approval issued to the most representative base vehicle remains valid irrespective of change in the reference mass.

W_2 Modification of the routing, length of the refuelling duct, fuel hoses and fuel vapour pipes is permitted without further test. Re-location of the original fuel tank is permitted provided all requirements are met. However, further testing in accordance with Annex 5 to UNECE Regulation No 34 are not required.

W_3 The longitudinal plane of the intended wheelchair-travelling position should be parallel to the longitudinal plane of the vehicle.

Appropriate information is to be made available to the vehicle owner that, in order to withstand the forces transmitted by the tie-down mechanism during the various driving conditions, a wheelchair with a structure meeting the relevant part of ISO 7176-19:2008 is recommended.

The seats of the vehicle may be adapted without further testing, provided it can be demonstrated to the technical service that their anchorages, mechanisms and head restraints provide the same level of performance.

The luggage retention requirements set out in UNECE Regulation No 17 do not apply.

W_4 Compliance with the relevant regulatory act(s) is required for the boarding aids when in the resting position.

W_5 Each wheelchair location is to be provided with anchorages to which a wheelchair tie-down and occupant restraint system (WTORS) is to be fitted, and that complies with the additional provisions for testing the wheelchair tie down and occupant restraint system set out in Appendix 3.

W_6 Each wheelchair location is to be provided with an occupant restraint belt that complies with the additional provisions for testing the wheelchair tie down and occupant restraint system of set out in Appendix 3.

When, due to the conversion, anchorage points for the safety belts need to be moved outside the tolerance provided for in paragraph 7.7.1 of UNECE Regulation No 16-06, the technical service is to check whether the alteration constitutes a worst case or not. If that is the case, the test provided for in paragraph 7.7.1. of UNECE Regulation No 16-06 is to be performed. Extension to the EU type-approval does not need to be issued. The test may be performed using components that have not undergone the conditioning test prescribed by UNECE Regulation No 16-06.

W_8 For the purposes of calculations, the mass of the wheel-chair including the user is

assumed to be 160 kg. The mass is to be concentrated at the P point of the surrogate wheelchair in its travelling position declared by the manufacturer.

Any limitation in the passenger capacity resulting from the use of wheelchair(s) is to be recorded in the owner's handbook, on side 2 of the EU type-approval certificate and in the certificate of conformity (remark section).

W_9 Modification of the exhaust system length is permitted without the need for retesting, provided that the exhaust back pressure remains similar.

Y Provided that all mandatory lighting devices are installed.

Z The requirements on the protrusion of open windows do not apply to the living compartment.

Z_1 Mobile cranes with more than six axles are considered to be off-road vehicles (N3G) when at least three axles are driven and provided they meet the provisions of Annex II, point 4.3(b)(ii) and (iii), as well as point 4.3(c).

ANNEX V

PROCEDURES TO BE FOLLOWED WITH RESPECT TO EU TYPE-APPROVAL

1. Objectives and scope

1.1. This Annex establishes the procedures for the proper operation of the vehicle type-approval in accordance with Articles 24, 25 and 26.

1.2. It also includes:

(a) the list of international standards which are of relevance for the designation of the technical services in accordance with Articles 72 and 74;

(b) the description of the procedure to be followed for the assessment of the skills of technical services in accordance with Article 77;

(c) the general requirements for the drafting of test reports by technical services.

2. Type-approval procedure

When receiving an application for vehicle type-approval, the approval authority shall:

(a) verify that all EU type-approval certificates issued pursuant to the regulatory acts which are applicable for vehicle type-approval cover the type of vehicle and correspond to the prescribed requirements;

(b) make sure that the vehicle specifications and data contained in Part I of the vehicle information document are included in the data in the information packages and in the EU type-approval certificates issued in accordance with the relevant regulatory acts;

(c) when an item number in Part I of the information document is not included in the information package as provided for in any of the regulatory acts, confirm that the relevant part or characteristic conforms to the particulars in the information folder;

(d) on a selected sample of vehicles from the type to be approved carry out or arrange to be carried out inspections of vehicle parts and systems to verify that the vehicle or vehicles are built in accordance with the relevant data contained in the authenticated information package in respect of the relevant EU type-approval certificates;

(e) carry out or arrange to be carried out relevant installation checks in respect of separate technical units, where applicable;

(f) carry out or arrange to be carried out necessary checks in respect of the presence of the devices provided for in notes 1 and 2 of Part I of Annex IV, where applicable;

(g) carry out or arrange to be carried out necessary checks in order to ensure that the requirements set out in note 5 of Part I of Annex IV are fulfilled.

3. Combination of technical specifications

The number of vehicles to be submitted shall be sufficient to permit the proper check of the various combinations to be type-approved according to the following criteria:

Technical specifications	Vehicle category									
	M_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
Engine	X	X	X	X	X	X	—	—	—	—
Gear box	X	X	X	X	X	X	—	—	—	—
Number of axles	—	X	X	X	X	X	X	X	X	X
Powered axles (number, position and interconnection)	X	X	X	X	X	X	—	—	—	—
Steered axles (number and position)	X	X	X	X	X	X	X	X	X	X
Body styles	X	X	X	X	X	X	X	X	X	X
Number of doors	X	X	X	X	X	X	X	X	X	X
Hand of drive	X	X	X	X	X	X	—	—	—	—
Number of seats	X	X	X	X	X	X	—	—	—	—
Level of equipment	X	X	X	X	X	X	—	—	—	—

4. **Specific provisions**

Where no approval certificates as provided for in the relevant regulatory acts are available, the approval authority shall:

(a) arrange for the necessary tests and checks as required by each of the relevant regulatory acts;

(b) verify that the vehicle conforms to the particulars in the vehicle information folder and that it meets the technical requirements of each of the relevant regulatory acts;

(c) carry out or arrange to be carried out relevant installation checks in respect of separate technical units, where applicable;

(d) carry out or arrange to be carried out necessary checks in respect of the presence of the devices provided for in notes 1 and 2 of Part I of Annex IV where applicable;

(e) carry out or arrange to be carried out necessary checks in order to ensure that the requirements set out in note 5 of Part I of Annex IV are fulfilled.

Appendix 1

Standards with which the entities referred to in Article 72 have to comply

1. Activities related to testing for type-approval to be carried out in accordance with the regulatory acts listed in Annex IV:

1.1. Category A (tests performed in own facilities):

EN ISO/IEC 17025:2005 on the general requirements for the competence of testing and calibration laboratories.

A technical service designated for category A activities may carry out or supervise the tests provided for in the regulatory acts for which it has been designated, in the facilities of a manufacturer or of its representative.

1.2. Category B (supervising of tests performed in the manufacturer's facilities or in the facilities of its representative):

EN ISO/IEC 17020:2012 on the general criteria for the operation of various types of bodies performing inspection.

Before performing or supervising any test in the facilities of a manufacturer or of its representative, the technical service shall verify that the tests facilities and measurement devices comply with the appropriate requirements of the standard referred to in point 1.1.

2. Activities related to Conformity of Production

2.1. Category C (procedure for the initial assessment and surveillance audits of the manufacturer's quality management system):

EN ISO/IEC 17021:2011 on the requirements for bodies providing audit and certification of management systems.

2.2. Category D (inspection or testing of production samples or supervision thereof):

EN ISO/IEC 17020:2012 on the general criteria for the operation of various types of bodies performing inspection.

Appendix 2

Procedure for the assessment of the technical services

1. **Objective and scope**

1.1. This Appendix establishes the conditions according to which the assessment procedure of the technical services shall be conducted by the competent authority referred to in Article 77.

1.2. Those requirements shall apply to all technical services, irrespective of their legal status (independent organisation, manufacturer or approval authority acting as technical service).

2. **Assessments**

The carrying out of an assessment shall be governed by the following:

(i) principle of independence, which is the basis for the impartiality and objectivity of the conclusions,

(ii) an evidence-based approach, which guarantees reliable and reproducible conclusions.

Auditors shall show trust and integrity. They shall respect confidentiality and discretion.

They shall report truthfully and accurately findings and conclusions.

3. **Skills required of the auditors**

3.1. The assessments may only be conducted by auditors having the technical and administrative knowledge necessary for such purposes.

3.2. The auditors shall have been trained specifically for assessment activities. In addition, they shall have the specific knowledge of the technical area in which the technical service will exercise its activities.

3.3. Without prejudice to points 3.1 and 3.2, the assessment referred to in Article 77 shall be conducted by auditors independent of the activities for which the assessment is conducted.

4. **Application for designation**

4.1. A duly authorised representative of the applicant technical service shall make a formal application to the competent authority that includes the following information:

(a) general features of the technical service, including corporate entity, name, addresses, legal status and technical resources;

(b) a detailed description, including curriculum vitae, of the personnel in charge of testing and of the managerial staff as evidenced by the skills both educational and professional;

(c) technical services which use virtual testing methods shall provide evidence of their ability to work in a Computer-Aided-x environment;

(d) general information concerning the technical service, including its activities, its relationship in a larger corporate entity, if any, and addresses of all its physical location(s) to be covered by the scope of designation;

(e) an agreement to fulfil the requirements for designation and the other obligations of the technical service as provided for in the relevant regulatory acts for which it is designated;

(f) a description of the conformity assessment services that the technical service undertakes in the framework of the relevant regulatory acts and a list of the regulatory acts for which the technical service applies for designation, including limits of capability, where applicable;

(g) a copy of the quality assurance manual of the technical service.

4.2. The competent authority shall review the adequacy of the information provided by the technical service.

4.3. The technical service shall notify to the approval authority any modifications to the information provided in accordance with point 4.1.

5. **Resource review**

The competent authority shall review its ability to carry out the assessment of the technical service, in terms of its own policy, its competence and the availability of suitable auditors and experts.

6. **Subcontracting the assessment**

6.1. The competent authority may subcontract parts of the assessment to another designation authority or ask for support from technical experts provided by other competent authorities. The subcontractors and experts have to be accepted by the applicant technical service.

6.2. The competent authority shall take into account accreditation certificates with adequate scope in order to complete its global assessment of the technical service.

7. **Preparation for assessment**

7.1. The competent authority shall formally appoint an assessment team. The competent authority shall ensure that the expertise brought to each assignment is appropriate. In particular, the team as a whole shall have both:

(a) appropriate knowledge of the specific scope for which designation is sought;

(b) sufficient understanding to reliably assess the competence of the technical service to operate within its scope of designation.

7.2. The competent authority shall clearly define the assignment given to the assessment team. The task of the assessment team is to review the documents collected from the applicant technical service and to conduct the on-site assessment.

7.3. The competent authority shall agree, together with the technical service and the assigned assessment team, to the date and timetable for the assessment. However, it remains the responsibility of the competent authority to pursue a date that is in accordance with the surveillance and reassessment plan.

7.4. The competent authority shall ensure that the assessment team is provided with the appropriate criteria documents, previous assessment records, and the relevant documents and records of the technical service.

8. **On-site assessment**

The assessment team shall conduct the assessment of the technical service at the premises of the technical service from which one or more key activities are performed and, where relevant, shall perform eyewitness assessment at other selected locations where the technical service operates.

9. **Analysis of findings and assessment report**

9.1. The assessment team shall analyse all relevant information and evidence gathered during the document and record review and the on-site assessment. This analysis shall be sufficient to allow the team to determine the extent of competence and conformity of the technical service with the requirements for designation.

9.2. The competent authority's reporting procedures shall ensure that the following requirements are fulfilled.

9.2.1. A meeting shall take place between the assessment team and the technical service prior to leaving the site. At this meeting, the assessment team shall provide a written and/or oral report on its findings obtained from the analysis. An opportunity shall be provided for the technical service to ask questions about the findings, including non-conformities, if any, and their basis.

9.2.2. A written report on the outcome of the assessment shall be promptly brought to the attention of the technical service. This assessment report shall contain comments on competence and conformity, and shall identify non-conformities, if any, to be resolved in order to conform to all of the requirements for designation.

9.2.3. The technical service shall be invited to respond to the assessment report and to describe the specific actions taken or planned to be taken, within a specific period of time, to resolve any identified non-conformities.

9.3. The competent authority shall ensure that the responses of the technical service are sufficient and effective to resolve non-conformities. If the technical service responses are found to be insufficient, further information shall be requested. Additionally, evidence of effective implementation of actions taken may be requested, or a follow-up assessment may be carried out, to verify effective implementation of corrective actions.

9.4. The assessment report shall include at least the following:

(a) unique identification of the technical service;

(b) date(s) of the on-site assessment;

(c) name(s) of the auditors(s) and/or experts involved in the assessment;

(d) unique identification of all premises assessed;

(e) proposed scope of designation that was assessed;

(f) a statement on the adequacy of the internal organisation and procedures adopted by the technical service supporting its competence, as determined through its fulfilment of the requirements for designation;

(g) information on resolving all non-conformities;

(h) a recommendation of whether the applicant should be designated or confirmed as technical service and, if so, the scope of designation.

10. **Granting or confirming a designation**

10.1. The approval authority shall, without undue delay, make the decision on whether to grant, confirm or extend a designation on the basis of the assessment report(s) and any other relevant information.

10.2. The approval authority shall provide a certificate to the technical service. This certificate shall identify the following:

(a) the identity and logo of the approval authority;

(b) the unique identity of the designated technical service;

(c) the effective date of granting of designation and the expiry date;

(d) a brief indication of or a reference to the scope of designation (relevant regulatory acts or part of them);

(e) a statement of conformity and a reference to this Regulation.

11. **Reassessment and surveillance**

11.1. Reassessment is similar to an initial assessment except that experience gained during previous assessments shall be taken into account. Surveillance on-site assessments are less comprehensive than reassessments.

11.2. The competent authority shall design its plan for reassessment and surveillance of each designated technical service so that representative samples of the scope of designation are assessed on a regular basis.

The interval between on-site assessments, whether reassessment or surveillance, depends on the proven stability that the technical service has reached.

11.3. Where, during surveillance or reassessments, non-conformities are identified, the competent authority shall define strict time limits for corrective actions to be implemented.

11.4. Where the corrective or improvement actions have not been taken within the agreed timeframe or are not deemed to be sufficient, the competent authority shall adopt appropriate measures, such as conducting a further assessment, or suspending or

withdrawing the designation for one or more of the activities for which the technical service has been designated.

11.5. Where the competent authority decides to suspend or withdraw the designation of a technical service, it shall inform the technical service of its decision by registered mail. In any case, the competent authority shall adopt all the necessary measures to ensure the continuity of the activities already undertaken by the technical service.

12. **Records on designated technical services**

12.1. The competent authority shall maintain records on technical services to demonstrate that the requirements for designation, including competence, have been effectively fulfilled.

12.2. The competent authority shall keep the records on technical services secure to ensure confidentiality.

12.3. Records on technical services shall include at least the following:

(a) relevant correspondence;

(b) assessment records and reports;

(c) copies of designation certificates.

Appendix 3

General requirements concerning the format of the test reports

1. For each of the regulatory acts listed in Part I of Annex IV, the test report shall comply with Standard EN ISO/IEC 17025:2005. In particular, it shall include the information referred to in point 5.10.2, including note 1 of that Standard.
2. The template of the test reports shall be laid down by the approval authority in accordance with its rules of good practice.
3. The test report shall be drafted in the official language of the Union determined by the approval authority.
4. The test report shall include at least the following information:
   (a) the identification of the vehicle, component or separate technical unit tested;
   (b) a detailed description of the vehicle, component or separate technical unit characteristics in connection with the regulatory act;
   (c) the results of the measurements specified in the relevant regulatory acts and, where required, the limits or thresholds which are to be met;
   (d) regarding each measurement referred to in point (c), the relevant decision of passed or failed;
   (e) a detailed statement of compliance with the various provisions which are to be met, i.e. those provisions that do not require measurements.

   As an example, the test report should include a statement that reflects the fulfilment of the requirements set out in Part B of Annex II to Regulation (EU) No 19/2011 as follows: 'The place of stamping the vehicle identification number fulfils the requirements of Part B of Annex II';

   (f) where test methods other than those prescribed in the regulatory acts are permitted, the report shall include a description of the test method used for performing the test.
   (g) pictures taken during testing, the number of which shall be decided by the approval authority.

   In the case of virtual testing, screen prints or other suitable evidence may replace pictures;

   (h) conclusions drawn up;
   (i) where opinions and interpretations have been made, they shall be documented properly and marked as such in the test report.
5. Where the tests are conducted on a vehicle, component or technical unit that combines a number of most unfavourable features with regard to the required level of performance to be achieved, i.e. the worst-case, the test report shall include a reference stating how the selection has been made by the manufacturer in agreement with the approval authority.

ANNEX VI

MODELS OF THE EU TYPE-APPROVAL CERTIFICATE

MODEL A

(to be used for EU type-approval of a vehicle)

Maximum format: A4 (210 × 297 mm)

EU TYPE-APPROVAL CERTIFICATE

Stamp of approval authority

Date of expiry of this certificate: dd/mm/yyyy([4])

Communication concerning:	Of a type of:
— EU type-approval ([1]) — extension of EU type-approval ([1]) — refusal of EU type-approval ([1]) — withdrawal of EU type-approval ([1])	— complete vehicle ([1]) — completed vehicle ([1]) — incomplete vehicle ([1]) — vehicle with complete and incomplete variants ([1]) — vehicle with completed and incomplete variants ([1])

issued in accordance with Regulation (EU) No XXX/201X, as last amended by Regulation (EC) No. …/… ([1]).

EU type-approval number:

Reason for extension:

SECTION I

1.1. Make (trade name of manufacturer):

1.2. Type:

1.2.1. Commercial name(s) ([2]):

01.3. Means of identification of type, if marked on the vehicle:

1.3.1. Location of that marking:

1.4. Category of vehicle ([3]):

([1]) Delete where not applicable.
([2]) If not available at the time of granting the type-approval, this item shall be completed at the latest when the vehicle is introduced on the market.
([3]) As defined in Annex II, Part A, of Regulation (EU) …/….

([4]) To be indicated in accordance with Article 33(1) of Regulation (EU) …/….

1.5. Company name and address of manufacturer of the complete/completed vehicle ([1]):

1.5.1 For multi-stage type-approved vehicles, company name and address of the manufacturer of the base/previous stage(s) vehicle:

1.8. Name(s) and address(es) of assembly plant(s):

1.9. Name and address of the manufacturer's representative (if any):

SECTION II

The undersigned hereby certifies the accuracy of the manufacturer's description in the attached information document of the type of vehicle ((a) sample(s) having been selected by the approval authority and submitted by the manufacturer as prototype(s) of the type of vehicle) and that the attached test results are applicable to the type of vehicle.

1. For complete and completed vehicles/variants ([1]):

   The type of vehicle meets/does not meet ([1]) the technical requirements of all the relevant regulatory acts as prescribed in Annex IV ([2]) to Regulation (EU) No XXX/201X.

1.1. Restrictions of validity ([1])([3]):…….

1.2. Waivers applied ([1])([3])([4]): …….

1.2.1. Reasons for the waivers ([1])([4]): ……

1.2.2. Alternative requirements ([1])([4]): ……

2. For incomplete vehicles/variants ([1]):

   The type of vehicle meets/does not meet ([1]) the technical requirements of the regulatory acts listed in the table on side 2.

3. The approval is granted/refused/withdrawn ([1]).

4. The approval is granted in accordance with Article 37 of Regulation (EU) No XXX/201X and the validity of the approval is thus limited to dd/mm/yy.

(Place)	(Signature)	(Date)

([1]) Delete where not applicable.
([2]) See side 2.
([3]) Applicable only for type-approval of a vehicle as an exemption for new technology or new concept, pursuant to Article 37 of Regulation (EU) No XXX/201X.
([4]) Applicable only for vehicle type-approval of a national small series, pursuant to Article 40 of Regulation (EU) No XXX/201X.

Attachments: Information package

Test results (see Annex VIII to Regulation (EU) No XXX/201X)

Name(s) and specimen(s) of the signature(s) of the person(s) authorised to sign

certificates of conformity and a statement of their position in the company

NB:

– If this model is used for type-approval of a vehicle as an exemption for new technology or new concept, pursuant to Article 37 of Regulation (EU) No XXX/201X, the heading of the certificate shall read 'PROVISIONAL CERTIFICATE OF CONFORMITY VALID ONLY ON THE TERRITORY OF …(MS)'.

  The provisional certificate of conformity shall also display in its title, instead of 'COMPLETE VEHICLES', the following: 'FOR COMPLETE VEHICLES, TYPE-APPROVED IN ACCORDANCE WITH ARTICLE 37 OF REGULATION (EU) NO XXX/201X OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF [DD OF MONTH OF YEAR] ON THE APPROVAL AND MARKET SURVEILLANCE OF MOTOR VEHICLES AND THEIR TRAILERS, AND OF SYSTEMS, COMPONENTS AND SEPARATE TECHNICAL UNITS INTENDED FOR SUCH VEHICLES (PROVISIONAL APPROVAL)', in accordance with Article 37 of Regulation (EU) No XXX/201X.

– If this model is used for vehicle type-approval for a national small series, pursuant to Article 40 of Regulation (EU) No XXX/201X, the heading of the certificate shall read 'NATIONAL SMALL SERIES VEHICLE TYPE-APPROVAL CERTIFICATE'. The text shall specify the nature of the exemptions, the reasons which support them and the alternative requirements referred to in Article 40(2) of Regulation (EU) No XXX/201X.

EU TYPE-APPROVAL CERTIFICATE

Side 2

This EU type-approval is, where incomplete and completed vehicles, variants or versions are concerned, based on the approval(s) for incomplete vehicles listed as follows:

Stage 1: Manufacturer of the base vehicle:

EU type-approval number:

Dated:

Applicable to variants or versions (as appropriate):

Stage 2: Manufacturer:

EU type-approval number:

Dated:

Applicable to variants or versions (as appropriate):

Stage 3: Manufacturer:

EU type-approval number:

Dated:

Applicable to variants or versions (as appropriate):

In the case where the approval includes one or more incomplete variants or versions (as appropriate), list those variants or versions (as appropriate) which are complete or completed.

Complete/completed variant(s):

List of requirements applicable to the approved incomplete type of vehicle, variant or version (as appropriate, taking account of the scope and latest amendment to each of the regulatory acts listed in the following table).

Item	Subject	Regulatory act reference	Last amended	Applicable to variant or, if need be, to version
(List only subjects for which an EU type-approval exists.)				

In the case of special purpose vehicles, exemptions granted or special provisions applied pursuant to Annex IV, Part III, and exemptions granted pursuant to Article 37:

Regulatory act reference	Item number	Kind of approval and nature of exemption	Applicable to variant or, if need be, to version

Appendix

List of regulatory acts with which the type of vehicle complies

(to be filled in only in the case of type-approval in accordance with Article 26(6))

Subject ([1])	**Regulatory act reference ([1])**	**As amended by**	**Applicable to variants**
1A Sound Level			
2. Emissions			
3. Fuel tanks/Rear protective devices			
…			

([1]) In accordance with Annex IV to this Regulation.

MODEL B

(To be used for type-approval of a vehicle with regard to a system)

Maximum format: A4 (210 × 297 mm)

EU TYPE-APPROVAL CERTIFICATE

Stamp of approval authority

Communication concerning:

— EU type-approval ([1])	of a type of system/type of a vehicle with regard to a system ([1])
— extension of EU type-approval ([1])	
— refusal of EU type-approval ([1])	
— withdrawal of EU type-approval ([1])	

issued in accordance with Regulation (EU) No XXX/201X / Regulation (EC) No …/… ([1]), as last amended by Regulation (EC) No …/… ([1]).

EU type-approval number:

Reason for extension:

SECTION I

1.1. Make (trade name of manufacturer):

1.2. Type:

1.2.1. Commercial name(s) (if available):

1.3. Means of identification of type, if marked on the vehicle ([2]):

1.3.1. Location of that marking:

1.4. Category of vehicle ([3]):

1.5. Company name and address of manufacturer:

1.8. Name(s) and address(es) of assembly plant(s):

1.9. Name and address of the manufacturer's representative (if any):

([1]) Delete where not applicable.

([2]) If the means of identification of type contains characters not relevant to describe the vehicle, component or separate technical unit types covered by this information document, such characters shall be represented in the documentation by the symbol '?' (e.g. ABC??123??).

([3]) As defined in Annex II, A, of Regulation (EU) …/…..

SECTION II

1. Additional information (where applicable): see Addendum.
2. Technical service responsible for carrying out the tests:
3. Date of test report:
4. Number of test report:
5. Remarks (if any): see Addendum.
6. Place:
7. Date:
8. Signature:

Attachments: Information package

Test report

Addendum

to EU type-approval certificate No …

1. Additional information

1.1. […]:

1.1.1. […]:

[…]

2. Type-approval number of each component or separate technical unit installed on the type of vehicle to comply with Regulation (EU) …/….

2.1. […]:

3. Remarks

3.1. […]:

MODEL C

(to be used for component/separate technical unit type-approval)

Maximum format: A4 (210 × 297 mm)

EU TYPE-APPROVAL CERTIFICATE

Stamp of approval authority

Communication concerning:

— EU type-approval ([1])	} of a type of component/separate technical unit([1])
— extension of EU type-approval ([1])	
— refusal of EU type-approval ([1])	
— withdrawal of EU type-approval ([1])	

issued in accordance with Regulation (EU) No XXX/201X / Regulation (EC) No …/… ([1]), as last amended by Regulation (EC) No …/… ([1]).

EU type-approval number:

Reason for extension:

SECTION I

1.1. Make (trade name of manufacturer):

1.2. Type:

1.3. Means of identification of type, if marked on the component/separate technical unit ([1]) ([2]):

1.3.1. Location of that marking:

1.5. Company name and address of manufacturer:

1.7. In the case of components and separate technical units, location and method of affixing of the EC approval mark:

1.8. Name(s) and address(es) of assembly plant(s):

1.9. Name and address of the manufacturer's representative (if any):

([1]) Delete where not applicable.

([2]) If the means of identification of type contains characters not relevant to describe the vehicle, component or separate technical unit types covered by this information document, such characters shall be represented in the communication by the symbol '?' (e.g. ABC??123??).

SECTION II

1. Additional information (where applicable): see Addendum.
2. Technical service responsible for carrying out the tests:
3. Date of test report:
4. Number of test report:
5. Remarks (if any): see Addendum.
6. Place:
7. Date:
8. Signature:

Attachments: Information package
Test report

Addendum

to EU type-approval certificate No …

1. Additional information

1.1. […]:

1.1.1. […]:

[…]

2. Restriction of use of the device (if any)

2.1. […]:

3. Remarks

3.1. […]:

MODEL D

(to be used for harmonised individual vehicle approval pursuant to Article 42)

Maximum format: A4 (210 × 297 mm)

EU INDIVIDUAL APPROVAL CERTIFICATE

e(4)	Name, address, phone number and e-mail-address of the approval authority

Communication concerning EU individual approval of a vehicle in accordance with Article 42 of Regulation (EU) No XXX/201X

SECTION I

1.1. Make (trade name of manufacturer): …

1.2.	Type:	Variant:	Version:

1.2.1. Commercial name: …

1.4. Category of vehicle ([2]): …

1.5. Company name and address of the manufacturer: …

1.6. Location and method of attachment of the statutory plates: …

Location of the vehicle identification number: …

1.9. Name and address of the manufacturer's representative (if any): …

1.10. Vehicle identification number: …

The undersigned [... ...*name and position*] hereby certifies that the vehicle submitted for approval on […… *date of application*] by […… *Name and address of the applicant]* is granted approval in accordance with Article 42 of Regulation (EU) No XXX/201X. In witness whereof, the following approval number has been allocated: …

The vehicle complies with Appendix 2 of Annex IV to Regulation (EU) No XXX/201X. It can be permanently registered without further approval in Member States having right/left hand traffic ([1]) and using metric/imperial ([1]) units for the speedometer.

([1]) Delete where not applicable.
([2]) As defined in Annex II, A, of Regulation (EU) No XXX/201X.
([4]) Distinguishing number of the Member State issuing the individual vehicle approval certificate: (see section 1 of point 1 of Annex VII to Regulation (EU) No XXX/201X).

(Place) (Date)	(Signature ([3]))	(Stamp of the approval authority)

[…]	[…]	[…]
		Two photos ([5]) of the vehicle (min resolution 640 x 480 pixels, ~7 x 10 cm)

([3]) Or visual representation of an 'advanced electronic signature' in accordance with Directive 1999/93/EC, including data for verification.
([5]) One ¾ front, one ¾ rear.

SECTION II

General construction characteristics

1. Number of axles: …and wheels: …
1.1. Number and position of axles with twin wheels: …
3. Powered axles (number, position, interconnection): …

Main dimensions

4. Wheelbase ([a]): … mm
4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm
5. Length: … mm
6. Width: … mm
7. Height: … mm

Masses

13. Mass of the vehicle in running order: …kg ([b])
16. Technically permissible maximum masses
16.1. Technically permissible maximum laden mass: … kg
16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.
16.4. Technically permissible maximum mass of the combination: … kg
18. Technically permissible maximum towable mass in case of:
18.1. Drawbar trailer: … kg
18.2. Semi-trailer: …kg
18.3. Centre-axle trailer: …kg
18.4. Unbraked trailer: … kg
19. Technically permissible maximum static vertical mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …
21. Engine code as marked on the engine: …
22. Working principle: …
23. Pure electric: yes/no ([1])
23.1. Hybrid [electric] vehicle: yes/no ([1])
24. Number and arrangement of cylinders
25. Engine capacity: …cm^3
26. Fuel: Diesel/petrol/LPG/NG – Biomethane/Ethanol/Biodiesel/Hydrogen ([1])
26.1. Mono fuel/Bi fuel/Flex fuel ([1])
27. Maximum net power ([c]): … kW at … min^{-1} or maximum continuous rated power (electric motor) … kW ([1])

Maximum speed

29. Maximum speed: …km/h

Axles and suspension

30. Axle(s) track: 1. … mm 2. … mm 3. … mm

35. Tyre/wheel combination: …

Bodywork

38. Code for bodywork ([d]): …
40. Colour of vehicle ([e]): …
41. Number and configuration of doors: …
42. Number of seating positions (including the driver) ([f]): …
42.1. Seat(s) designated for use only when the vehicle is stationary: …
42.3. Number of wheelchair user accessible position: …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

Environmental performances

46. Sound level
Stationary: …dB(A) at engine speed: …min^{-1}
Drive-by: … dB(A)
47. Exhaust emission level ([g]): Euro …
Other legislation: …
49. CO_2 emissions/fuel consumption/electric energy consumption ([h]):

1. all power train, except pure electric vehicles

	CO_2 emissions	**Fuel consumption**
Combined:	… g/km	… l/100 km/m^3/100 km ([1])
Weighted, combined	… g/km	… l/100 km

2. pure electric vehicles and OVC hybrid electric vehicles

Electric energy consumption (weighted, combined ([1])) …Wh/km

52. Remarks: …
53. Additional information: mileage ([2]), …

Explanatory notes to model D

([1]) Delete where not applicable.
([2]) Not compulsory.
([a]) This entry shall be completed only where the vehicle has two axles.
([b]) This mass is the actual mass of the vehicle in the conditions referred to in point 2.6 of Annex I to Regulation (EU) No XXX/201X.
([c]) For hybrid electric vehicles, indicate both power outputs.
([d]) The codes described in section C of Annex II shall be used.
([e]) Indicate only the basic colour(s): white, yellow, orange, red, violet, blue, green, grey, brown or black.
([f]) Excluding seats designated for use only when the vehicle is stationary and the number of wheelchair positions.
([g]) Add the number of the Euro level and, if appropriate, the character corresponding to the provisions used for type-approval.
([h]) Repeat for the various fuels which can be used.

ANNEX VII

EU TYPE-APPROVAL CERTIFICATE NUMBERING SYSTEM ([1])

1. The EU type-approval number shall consist of four sections for whole-vehicle type-approvals and five sections for system, component, and separate technical unit type-approvals as follows. In all cases, the sections shall be separated by the '*' character.

Section 1: The lower case letter 'e' followed by the distinguishing number of the Member State granting the EU type-approval:

1	for Germany;	19	for Romania;
2	for France;	20	for Poland;
3	for Italy;	21	for Portugal;
4	for the Netherlands;	23	for Greece;
5	for Sweden;	24	for Ireland;
6	for Belgium;	25	for Croatia;
7	for Hungary;	26	for Slovenia;
8	for the Czech Republic;	27	for Slovakia;
9	for Spain;	29	for Estonia;
11	for the United Kingdom;	32	for Latvia;
12	for Austria;	34	for Bulgaria;
13	for Luxembourg;	36	for Lithuania;
17	for Finland;	49	for Cyprus;
18	for Denmark;	50	for Malta.

Section 2: The number of the base directive or regulation

In the case of EU type-approval for systems, components or separate technical units covered by the implementing measures referred to in Regulation (EC) No 661/2009, the base regulation reference shall be the regulation number of the implementing act adopted pursuant to Article 14(1)(a) to (e) of Regulation (EC) No 661/2009.

Section 3: The number of the latest amending directive or regulation, including implementing acts applicable to the type-approval in accordance with the following indents. However, in case such amending directive or regulation or relevant implementing act does not yet exist, the number referred to in section 2 is repeated in section 3:

— in the case of whole-vehicle type-approvals, this means the latest directive or regulation amending an Article (or Articles) of Regulation (EU) No XXX/201X,

([1]) Components and separate technical units shall be marked in accordance with the provisions of the relevant regulatory acts.

— in the case of whole-vehicle type-approvals granted in accordance with the procedure described in Article 39, this means the latest directive or regulation amending an Article or Articles of Regulation (EU) No XXX/201X, except that the two first digits (e.g. 20) are replaced by the letters KS in block capitals,

— this means the latest directive or regulation containing the actual provisions with which the system, component or technical unit conforms,

— this means the latest regulation, containing amendments to implementing measures of Regulation (EC) No 661/2009, with which a system, component or technical unit complies,

— should a directive or regulation, including their implementing acts, contain different technical requirements to be applied from specific dates, section 3 shall be followed with an alphabetical character to clearly identify against which technical requirements the approval was granted. Where different vehicle categories are concerned, the character may also refer to a specific vehicle category.

Section 4: A four-digit sequential number (with leading zeros where applicable) for EU whole-vehicle type-approvals, or four or five digits for type-approval pursuant to a separate directive or regulation to denote the base type-approval number. The sequence shall start from 0001 for each basic directive or regulation.

Section 5: A two-digit sequential number (with leading zeros where applicable) to denote the extension. The sequence shall start from 00 for each base approval number.

2. In the case of a whole-vehicle type-approval, section 2 shall be omitted.

However, in the case of a national type-approval granted for vehicles produced in small series pursuant to Article 40, section 2 shall be replaced by the letters NKS in block capitals

3. On the vehicle's statutory plate(s) only, section 5 shall be omitted.

4. Layouts of the type-approval numbers.

4.1. Example of a third type-approval (where no extension has yet been granted) granted by France

(i) pursuant to Commission Regulation (EU) No 1008/2010[(2)] (windscreen wiper and washer systems):

e2*1008/2010*1008/2010*00003*00

(ii) pursuant to Commission Regulation (EU) No 19/2011[(3)] as amended by Commission Regulation (EU) No 249/2012[(4)] (statutory markings):

e2*19/2011*249/2012*0003*00

4.2. Example of the second extension to the fourth vehicle type-approval granted by the United Kingdom:

e11*2007/2046*0004*02

4.3. Example of a EU whole-vehicle type-approval granted to a vehicle produced in small series by Luxembourg, pursuant to Article 39:

e13*KS07/46*0001*00.

4.4. Example of a national type-approval granted to a vehicle produced in small series by the Netherlands, pursuant to Article 40:

e4*NKS*0001*00.

4.5. Example of the type-approval number to be stamped on the vehicle's statutory plate(s):

e11*2007/2046*0004.

5. Annex VII does not apply to type-approvals granted in accordance with UNECE regulations listed in Annex IV, as the relevant numbering system is provided for in the respective UNECE regulations. However, Annex VII applies to EU type-approvals granted under Regulation (EC) No 661/2009 which are based on UNECE regulations (i.e. incorporating new technologies, EU type-approved components and STUs, virtual testing and self-testing). In this case, the following numbering system applies:

Section 1: as in point 1 above

Section 2: '661/2009' (Regulation (EC) No 661/2009)

Section 3: First portion is the UNECE Regulation No, followed by 'R-', the second portion is the series of amendments or '00' if it is the original series, followed by '-' and the third portion is the supplement level (with leading zeros where applicable) or '00' when there is no supplement to the relevant series.

Section 4: as in point 1 above

Section 5: as in point 1 above

Examples:

e1*661/2009*13-HR-10-05*00001*00
(type-approval granted by Germany, according to UNECE Regulation No 13-H, 10 series of amendments, supplement level 5, first approval issued, no extensions)

e25*661/2009*28R-00-03*0123*05
(granted by Croatia, according to UNECE Regulation No 28, original series of amendments, supplement 3, 123rd approval issued, 5th extension)

(2) Commission Regulation (EU) No 1008/2010 of 9 November 2010 concerning type-approval requirements for windscreen wiper and washer systems of certain motor vehicles and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 292, 10.11.2010, p. 2).

(3) Commission Regulation (EU) No 19/2011 of 11 January 2011 concerning type-approval requirements for the manufacturer's statutory plate and for the vehicle identification number of motor vehicles and their trailers and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 8, 12.1.2011, p. 1).

(4) Commission Regulation (EU) No 249/2012 of 21 March 2012 amending Regulation (EU) No 19/2011 as regards type-approval requirements for the manufacturer's statutory plate of motor vehicles and their trailers (OJ L 82, 22.3.2012, p. 1).

Appendix

EU type-approval mark of a component or a separate technical unit

1. The EU type-approval mark of a component or a separate technical unit shall consist of the following:

1.1. A rectangle surrounding the lower-case letter 'e' followed by the distinguishing letter(s) or number of the Member State which has granted the EU type-approval to a component or a separate technical unit:

1	for Germany;	19	for Romania;
2	for France;	20	for Poland;
3	for Italy;	21	for Portugal;
4	for the Netherlands;	23	for Greece;
5	for Sweden;	24	for Ireland;
6	for Belgium;	25	for Croatia;
7	for Hungary;	26	for Slovenia;
8	for the Czech Republic;	27	for Slovakia;
9	for Spain;	29	for Estonia;
11	for the United Kingdom;	32	for Latvia;
12	for Austria;	34	for Bulgaria;
13	for Luxembourg;	36	for Lithuania;
17	for Finland;	49	for Cyprus;
18	for Denmark;	50	for Malta.

1.2. In the vicinity of the rectangle the 'base approval number' contained in section 4 of the type-approval number preceded by the two figures indicating the sequence number assigned to the latest amendment to the relevant separate directive or regulation.

1.3. An additional symbol or symbols located above the rectangle, enabling certain characteristics to be identified, where specified in the relevant separate directives or regulations.

2. The component or separate technical unit type-approval mark is affixed to the separate technical unit or component in such a way as to be indelible and clearly legible.

3. An example of a component or separate technical unit type-approval mark is contained in the Addendum.

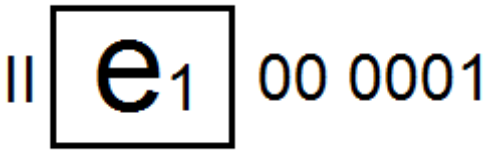
4. This Appendix does not apply to type-approvals granted in accordance with the UNECE regulations listed in Annex IV, as the relevant arrangements of approval marks are provided for in the respective UNECE regulations. However, this Appendix applies to EU type-approvals for components and separate technical units granted under Regulation (EC) No 661/2009 that are based on UNECE regulations (i.e. components or separate technical units incorporating new technologies). In this case, the following arrangement of markings applies:

The distinguishing type-approval marking shall be as prescribed in the relevant

UNECE regulation taking the following into account:

When a circle surrounding the letter ‘E’ is prescribed, this shall be not a circle, but a rectangle. Its height (a) shall at least correspond to the prescribed diameter size and its width shall exceed that value (i.e. > a). Instead of the upper-case letter ‘E’, the lower-case letter ‘e’ shall be used, followed by the distinguishing number of the Member State that has granted the EU type-approval of the component or separate technical unit.

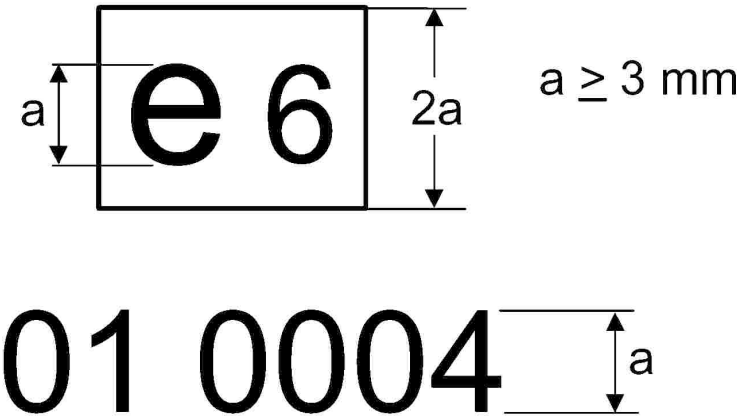
Example:



(granted by Germany, based on UNECE Regulation No 28, original series, first approval granted, for a Class II audible warning device incorporating new technologies)”

Addendum to the Appendix

Example of an EU type-approval mark of a component or separate technical unit



Legend: the above EU type-approval mark of a component is for a EU type-approval granted by Belgium under number 0004. 01 is a sequential number denoting the level of technical requirements to which this component fulfils. The sequential number is attributed in accordance with the relevant separate directive or regulation.

NB: The additional symbols are not shown on this example.

ANNEX VIII

TEST RESULTS

(To be completed by the approval authority and appended to the vehicle EU type-approval certificate)

In each case, the information must make clear to which variant and version it is applicable. One version may not have more than one result. However, a combination of several results per version indicating the worst case is permissible. In that case, a note shall state that for items marked (*) only worst case results are given.

1. Results of the sound level tests

Number of the base regulatory act and latest amending regulatory act applicable to the approval. In case of a regulatory act with two or more implementation stages, indicate also the implementation stage:

Variant/Version:	…	…	…
Moving (dB(A)/E):	…	…	…
Stationary (dB(A)/E):	…	…	…
at (min^{-1}):	…	…	…

2. Results of the exhaust emission tests

2.1. Emissions from motor vehicles tested under the test procedure for light-duty vehicles

Indicate the latest amending regulatory act applicable to the approval. In case the regulatory act has two or more implementation stages, indicate also the implementation stage:

Fuel(s) ([a]) … (diesel, petrol, LPG, NG, Bi-fuel: petrol/NG, LPG, Flex-fuel: petrol/ethanol, NG/H2NG…)

2.1.1. Type 1 test ([b]) ([c]) (vehicle emissions in the test cycle after a cold start)

Variant/Version:	…	…	…
CO (mg/km)	…	…	…
THC (mg/km)	…	…	…
NMHC (mg/km)	…	…	…
NO_x (mg/km)	…	…	…
THC + NO_x (mg/km)	…	…	…
Mass of particulate matter (PM) (mg/km)	…	…	…
Number of particles (P) (#/km) ([1])	…	…	…

2.1.2. Type 2 test ([b]) ([c]) (emissions data required at type-approval for roadworthiness purposes)

Type 2, low idle test:

Variant/Version:	…	…	…
CO (% vol.)	…	…	…
Engine speed (min^{-1})	…	…	…
Engine oil temperature (°C)	…	…	…

Type 2, high idle test:

Variant/Version:	…	…	…
CO (% vol.)	…	…	…
Lambda value	…	…	…
Engine speed (min^{-1})	…	…	…
Engine oil temperature (°C)	…	…	…

2.1.3. Type 3 test (emissions of crankcase gases): …

2.1.4. Type 4 test (evaporative emissions): …g/test

2.1.5. Type 5 test (durability of anti-pollution control devices):

— Ageing distance covered (km)(e.g. 160 000 km): …

— Deterioration factor DF: calculated/fixed ([2])

— Values:

Variant/Version:	…	…	…
CO	…	…	…
THC	…	…	…
NMHC	…	…	…
NO_x	…	…	…
THC + NO_x	…	…	…
Mass of particulate matter (PM)	…	…	…

Number of particles (P) ([1])	…	…	…

2.1.6. Type 6 test (average emissions at low ambient temperatures):

Variant/Version:	…	…	…
CO (g/km)	…	…	…
THC (g/km)	…	…	…

2.1.7. OBD: yes/no ([2])

2.2. Emissions from engines tested under the test procedure for heavy-duty vehicles.

Indicate the latest amending regulatory act applicable to the approval. In case the regulatory act has two or more implementation stages, indicate also the implementation stage: …

Fuel(s) ([a]) … (diesel, petrol, LPG, NG, ethanol …)

2.2.1. Results of the ESC test ([1]) ([e]) ([f])

Variant/Version:	…	…	…
CO (mg/kWh)	…	…	…
THC (mg/kWh)	…	…	…
NO_x (mg/kWh)	…	…	…
NH_3 (ppm) ([1])	…	…	…
PM mass (mg/kWh)	…	…	…
PM number (#/kWh) ([1])	…	…	…

2.2.2. Result of the ELR test ([1])

Variant/Version:	…	…	…
Smoke value:…m^{-1}	…	…	…

2.2.3. Result of the ETC test ([e]) ([f])

Variant/Version:	…	…	…
CO (mg/kWh)	…	…	…
THC (mg/kWh)	…	…	…
NMHC (mg/kWh) ([1])	…	…	…
CH_4 (mg/kWh) ([1])	…	…	…
NO_x (mg/kWh)	…	…	…

NH_3 (ppm) ([1])	…	…	…
PM mass (mg/kWh)	…	…	…
PM number (#/kWh) ([1])	…	…	…

2.2.4. Idle test ([1])

Variant/Version:	…	…	…
CO (% vol.)	…	…	…
Lambda Value ([1])	…	…	…
Engine speed (min^{-1})	…	…	…
Engine oil temperature (°C)	…	…	…

2.3. Diesel smoke

Indicate the latest amending regulatory act applicable to the approval. In case the regulatory act has two or more implementation stages, indicate also the implementation stage:

2.3.1. Results of the test under free acceleration

Variant/Version:	…	…	…
Corrected value of the absorption coefficient (m^{-1})	…	…	…
Normal engine idling speed	…	…	…
Maximum engine speed	…	…	…
Oil temperature (min./max.)	…	…	…

3. Results of the CO_2 emission, fuel/electric energy consumption, and electric range tests

Number of the base regulatory act and the latest amending regulatory act applicable to the approval:

3.1. Internal combustion engines, including not externally chargeable hybrid electric vehicles (NOVC) ([1]) ([d])

Variant/Version:	…	…	…
CO_2 mass emission (urban conditions) (g/km)	…	…	…
CO_2 mass emission (extra-urban conditions) (g/km)	…	…	…
CO_2 mass emission (combined) (g/km)	…	…	…
Fuel consumption (urban conditions) (l/100 km) ([g])	…	…	…

Fuel consumption (extra-urban conditions) (l/100 km) ([g])	…	…	…
Fuel consumption (combined) (l/100 km) ([g])	…	…	…

3.2. Externally chargeable hybrid electric vehicles (OVC) ([1])

Variant/Version:	…	…	…
CO_2 mass emission (Condition A, combined) (g/km)	…	…	…
CO_2 mass emission (Condition B, combined) (g/km)	…	…	…
CO_2 mass emission (weighted, combined) (g/km)	…	…	…
Fuel consumption (Condition A, combined) (l/100 km) ([g])	…	…	…
Fuel consumption (Condition B, combined) (l/100 km) ([g])	…	…	…
Fuel consumption (weighted, combined) (l/100 km) ([g])	…	…	…
Electric energy consumption (Condition A, combined) (Wh/km)	…	…	…
Electric energy consumption (Condition B, combined) (Wh/km)	…	…	…
Electric energy consumption (weighted and combined) (Wh/km)	…	…	…
Pure electric range (km)	…	…	…

3.3. Pure electric vehicles ([1])

Variant/Version:	…	…	…
Electric energy consumption (Wh/km)	…	…	…
Range (km)	…	…	…

3.4. Hydrogen fuel cell vehicles ([1])

Variant/Version:	…	…	…
Fuel consumption (kg/100 km)	…	…	…

4. Results of the tests for vehicles fitted with eco-innovation(s) ([h1]) ([h2]) ([h3])

Variant/Version …							
Decision approving the eco-innovation ([h4])	Code of the eco-innovation ([h5])	1. CO_2 emissions of the baseline vehicle (g/km)	2. CO_2 emissions of the eco-innovation vehicle (g/km)	3. CO_2 emissions of the baseline vehicle under Type 1 test-cycle ([h6])	4. CO_2 emissions of the eco-innovation vehicle under Type 1 test-cycle (= 3.5.1.3)	5. Usage factor (UF) i.e. temporal share of technology usage in normal operation conditions	CO_2 emissions savings ((1 – 2) – (3 – 4))*5
xxxx/201x	…	…	…	…	…	…	…
…	…	…	…	…	…	…	…
…	…	…	…	…	…	…	…
Total CO_2 emissions savings (g/km) ([h7])							…

4.1. General code of the eco-innovation(s) ([h8])

Explanatory notes

([1]) Where applicable.
([2]) Delete where not applicable.
([a]) Where restrictions for the fuel are applicable, indicate these restrictions (e.g. for natural gas the L range or the H range).
([b]) For bi-fuel vehicles, the table shall be repeated for both fuels.
([c]) For flex fuel vehicles, where the test is to be performed on both fuels, according to Figure I.2.4 of Annex I to Regulation (EC) No 692/2008, and for vehicles running on LPG or NG/Bio methane, either bi-fuel or mono-fuel, the table shall be repeated for the different reference gases used in the test, and an additional table shall display the worst results obtained. Where applicable, in accordance with points 1.1.2.4 and 1.1.2.5 of Annex I to Regulation (EC) No 692/2008, it shall be shown if the results are measured or calculated.
([d]) Repeat the table for each reference fuel tested.
([e]) For Euro VI, ESC shall be understood as WHSC and ETC as WHTC.
([f]) For Euro VI, if CNG and LPG fuelled engines are tested on different reference fuels, the table shall be reproduced for each reference fuel tested.
([g]) The unit "l/100 km" is replaced by "m 3 /100 km" for vehicles fuelled with NG and H2NG, and by "kg/100 km" for vehicles fuelled with hydrogen.
([h]) Eco-innovations.
([h1]) Repeat the table for each variant/version.
([h2]) Repeat the table for each reference fuel tested.
([h3]) Expand the table if necessary, using one extra row per eco-innovation.
([h4]) Number of the Commission decision approving the eco-innovation.
([h5]) Assigned in the Commission decision approving the eco-innovation.
([h6]) If a modelling methodology is applied instead of the type 1 test cycle, this value shall be the one provided by the modelling methodology.
([h7]) Sum of the CO_2 emissions savings of each individual eco-innovation.
([h8]) The general code of the eco-innovation(s) shall consist of the following elements, each separated by a blank space:
— Code of the approval authority as set out in Annex VII;
— Individual code of each eco-innovation fitted in the vehicle, indicated in chronological order of the Commission approval decisions.

E.g. the general code of three eco-innovations approved chronologically as 10, 15 and 16 and fitted to a vehicle certified by the German approval authority should be: “e1 10 15 16”.

ANNEX IX

CERTIFICATE OF CONFORMITY

1. OBJECTIVES

The certificate of conformity is a statement delivered by the vehicle manufacturer to the buyer in order to assure him that the vehicle acquired complies with the legislation in force in the Union at the time it was produced.

The certificate of conformity also serves the purpose of enabling the competent authorities of the Member States to register vehicles without having to require the applicant to supply additional technical documentation.

2. GENERAL DESCRIPTION

2.1. The certificate of conformity shall include the following information:
(a) the Vehicle Identification Number;
(b) the date of manufacture of the vehicle;
(c) the exact technical characteristics of the vehicle (i.e. it is not permitted to mention any range of values in the various entries).

2.2. The certificate of conformity shall consist of two parts:

(a) SIDE 1, which consists of a statement of compliance by the manufacturer. The template for this statement shall be identical for all vehicle categories.

(b) SIDE 2, which is a technical description of the exact technical characteristics of the vehicle. Side 2 shall be adapted to each specific vehicle category.

2.3. The certificate of conformity shall be established in a maximum format A4 (210 × 297 mm) or a folder of maximum format A4.

2.4. Without prejudice to point 2.2.(b), the values and units provided in side 2 of the certificate of conformity shall be identical to those given in the type-approval documentation that the relevant regulatory acts require. In case of conformity of production checks, the values shall be verified according to the methods laid down in the relevant regulatory acts. The tolerances allowed in those regulatory acts shall be taken into account.

3. SPECIAL PROVISIONS

3.1. Model A of the certificate of conformity (complete vehicle) shall cover vehicles that can be used on the road without requiring any further stage of completion for their type-approval.

3.2. Model B of the certificate of conformity (completed vehicles) shall cover vehicles that have undergone a further stage of completion for their type-approval.

This is the normal result of the multi-stage type-approval (e.g. a bus built by a second stage manufacturer on a chassis built by a vehicle manufacturer).

The additional features that have been added during the multi-stage procedure shall be described briefly.

3.3. Model C of the certificate of conformity (incomplete vehicles) shall cover vehicles that need a further stage of completion for their approval (e.g. truck chassis).

Except for tractors for semi-trailers, certificates of conformity covering chassis-cab vehicles belonging to category N shall be of Model C.

PART I

COMPLETE AND COMPLETED VEHICLES

MODEL A1 — SIDE 1

COMPLETE VEHICLES

CERTIFICATE OF CONFORMITY

Side 1

The undersigned [… (*Full name and position*)] hereby certifies that the vehicle:

0.1. Make (Trade name of manufacturer): …

0.2. Type: …

Variant ([a]): …

Version ([a]): …

0.2.1. Commercial name: …

0.4. Vehicle category: …

0.5. Company name and address of manufacturer: …

0.6. Location and method of attachment of the statutory plates: …

Location of the vehicle identification number: …

0.9. Name and address of the manufacturer's representative (if any): …

0.10. Vehicle identification number: …

0.11 Date of manufacture: ……

conforms in all respects to the type described in approval (… *type-approval number including extension number*) issued on (… *date of issue*) and

can be permanently registered in Member States having right/left ([b]) hand traffic and using metric/imperial ([c]) units for the speedometer.([d])

(Place) (Date): …	(Signature): …

NB:

- If this model is used for type-approval of a vehicle as an exemption for new technology or new concept, pursuant to Article 37 of Regulation (EU) No XXX/201X, the heading of the certificate of conformity shall read 'PROVISIONAL CERTIFICATE OF CONFORMITY VALID ONLY ON THE TERRITORY OF …(MS)'.

The provisional certificate of conformity shall also display in its title, instead of 'COMPLETE VEHICLES', the following: 'FOR COMPLETE VEHICLES, TYPE-APPROVED IN ACCORDANCE WITH ARTICLE 37 OF REGULATION (EU) NO XXX/201X OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF [DD OF MONTH OF YEAR] ON THE APPROVAL AND MARKET SURVEILLANCE OF MOTOR VEHICLES AND THEIR TRAILERS, AND OF SYSTEMS, COMPONENTS AND SEPARATE TECHNICAL UNITS INTENDED FOR SUCH VEHICLES (PROVISIONAL APPROVAL)', in accordance with Article 37 of Regulation (EU) No XXX/201X.

MODEL A2 — SIDE 1

COMPLETE VEHICLES TYPE-APPROVED IN SMALL SERIES

[Year]	[Sequential number]

CERTIFICATE OF CONFORMITY

Side 1

The undersigned [… (*Full name and position*)] hereby certifies that the vehicle:

0.1. Make (Trade name of manufacturer): …

0.2. Type: …

Variant ([a]): …

Version ([a]): …

0.2.1. Commercial name: …

0.4. Vehicle category: …

0.5. Company name and address of manufacturer: …

0.6. Location and method of attachment of the statutory plates: …

Location of the vehicle identification number: …

0.9. Name and address of the manufacturer's representative (if any): …

0.10. Vehicle identification number: …

0.11. Date of manufacture: …….

conforms in all respects to the type described in approval (… *type-approval number including extension number*) issued on (… *date of issue*) and

can be permanently registered in Member States having right/left ([b]) hand traffic and using metric/imperial ([c]) units for the speedometer.([d])

(Place) (Date): …	(Signature): …

MODEL B — SIDE 1

COMPLETED VEHICLES

CERTIFICATE OF CONFORMITY

Side 1

The undersigned [… (*Full name and position*)] hereby certifies that the vehicle:

0.1. Make (Trade name of the manufacturer): …

0.2. Type: …

Variant ([a]): …

Version ([a]): …

0.2.1. Commercial name: …

0.2.2. For multi-stage type-approved vehicles, type-approval information of the base/previous stages vehicle (list the information for each stage):

Type: ……

Variant ([a]): ……..

Version ([a]): ……...

Type-approval number, extension number ……

0.4. Vehicle category: …

0.5. Company name and address of manufacturer: …

0.5.1. For multi-stage type-approved vehicles, company name and address of the manufacturer of the base/previous stage(s) vehicle……

0.6. Location and method of attachment of the statutory plates: …

Location of the vehicle identification number: …

0.9. Name and address of the manufacturer's representative (if any): …

0.10. Vehicle identification number: …

0.11. Date of manufacture: …….

(a) has been completed and altered ([1]) as follows: … and

(b) conforms in all respects to the type described in approval (… *type-approval number, including extension number*) issued on (… *date of issue*) and

(c) can be permanently registered in Member States having right/left ([b]) hand traffic and using metric/imperial ([c]) units for the speedometer.([d])

(Place) (Date): …	(Signature): …

Attachments: Certificate of conformity delivered at each previous stage.

NB:

- If this model is used for type-approval of a vehicle as an exemption for new technology or new concept, pursuant to Article 37 of Regulation (EU) No XXX/2014, the heading of the certificate shall read 'PROVISIONAL CERTIFICATE OF CONFORMITY VALID ONLY ON THE TERRITORY OF …(MS)'.

The provisional certificate of conformity shall also display in its title, instead of 'COMPLETE VEHICLES', the following: 'FOR COMPLETE VEHICLES, TYPE-APPROVED IN ACCORDANCE WITH ARTICLE 37 OF REGULATION (EU) NO XXX/201X OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF [DD OF MONTH OF YEAR] ON THE APPROVAL AND MARKET SURVEILLANCE OF MOTOR VEHICLES AND THEIR TRAILERS, AND OF SYSTEMS, COMPONENTS AND SEPARATE TECHNICAL UNITS INTENDED FOR SUCH VEHICLES (PROVISIONAL APPROVAL)', in accordance with Article 37 of Regulation (EU) No XXX/201X.

SIDE 2

VEHICLE CATEGORY M_1

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

7. Height: … mm

Masses

13. Mass in running order: … kg

13.2. Actual mass of the vehicle: … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static vertical mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30. Axle(s) track: 1. … mm 2. … mm 3. … mm

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

Bodywork

38. Code for bodywork ([i]): …

40. Colour of vehicle ([j]): …

41. Number and configuration of doors: …

42. Number of seating positions (including the driver) ([k]): …

42.1. Seat(s) designated for use only when the vehicle is stationary: …

42.3. Number of wheelchair user accessible position: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act : …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6(1)) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: … Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: … Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

49. CO_2 emissions/fuel consumption/electric energy consumption ([m]):

1. All power train, except pure electric vehicles

	CO_2 emissions	Fuel consumption
Urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Extra-urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Combined:	… g/km	… l/100 km/m^3/100 km ([1])
Weighted, combined	… g/km	… l/100 km

2. Pure electric vehicles and OVC hybrid electric vehicles

Electric energy consumption (weighted, combined ([1])) … Wh/km

Electric range … km

3. Vehicle fitted with eco-innovation(s): yes/no ([1])

3.1. General code of the eco-innovation(s) ([p1]): …

3.2. Total CO_2 emissions savings due to the eco-innovation(s) ([p2]) (repeat for each reference fuel tested): …

Miscellaneous

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY M_2

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

7. Height: … mm

9. Distance between the front end of the vehicle and the centre of the coupling device: … mm

12. Rear overhang: … mm

Masses

13. Mass in running order: … kg

13.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg etc.

13.2. Actual mass of the vehicle: … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle: 1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:

1. … kg 2. … kg 3. … kg

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30. Axle(s) track: 1. … mm 2. … mm 3. … mm

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Bodywork

38. Code for bodywork ([i]): …

39. Class of vehicle: class I/Class II/Class III/Class A/Class B ([1])

41. Number and configuration of doors: …

42. Number of seating positions (including the driver) ([k]): …

42.1. Seat(s) designated for use only when the vehicle is stationary: …

42.3. Number of wheelchair user accessible position: …

43. Number of standing places: …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6 ([1])) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: … THC + NO_x: …

Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY M_3

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

7. Height: … mm

9. Distance between the front end of the vehicle and the centre of the coupling device: … mm

12. Rear overhang: … mm

Masses

13. Mass in running order: … kg

13.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg etc.

13.2. Actual mass of the vehicle: … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle: 1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:
1. … kg 2. … kg 3. … kg

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30.1. Track of each steered axle: … mm

30.2. Track of all other axles: … mm

32. Position of loadable axle(s): …

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Bodywork

38. Code for bodywork ([i]): …

39. Class of vehicle: class I/Class II/Class III/Class A/Class B ([1])

41. Number and configuration of doors: …

42. Number of seating positions (including the driver) ([k]): …

42.1. Seat(s) designated for use only when the vehicle is stationary: …

42.2. Number of passenger seating positions: … (lower deck) … (upper deck) (including the driver)

42.3. Number of wheelchair user accessible position: …

43. Number of standing places: …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: ESC

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …
Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: WHSC (EURO VI)

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: …
Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY N_1

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

7. Height: … mm

8. Fifth wheel lead for semi-trailer towing vehicle (maximum and minimum): … mm

9. Distance between the front end of the vehicle and the centre of the coupling device: … mm

11. Length of the loading area: … mm

Masses

13. Mass in running order: … kg

13.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

13.2. Actual mass of the vehicle: … kg

14. Mass of the base vehicle in running order: …kg ([1])([q])

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.2. Semi-trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30. Axle(s) track: 1. … mm 2. … mm 3. … mm

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Bodywork

38. Code for bodywork ([i]): …

40. Colour of vehicle ([j]): …

41. Number and configuration of doors: …

42. Number of seating positions (including the driver) ([k]): …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([1]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6 ([1])) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: …
Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: …

Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

49. CO_2 emissions/fuel consumption/electric energy consumption ([m]):

1. All power train except pure electric vehicles

	CO_2 emissions	Fuel consumption
Urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Extra-urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Combined:	… g/km	… l/100 km/m^3/100 km ([1])
Weighted, combined	… g/km	… l/100 km

2. Pure electric vehicles and OVC hybrid electric vehicles

Electric energy consumption (weighted, combined ([1])) … Wh/km

Electric range … km

3. Vehicle fitted with eco-innovation(s): yes/no ([1])

3.1. General code of the eco-innovation(s) ([p1]): ……..

3.2. Total CO_2 emissions saving due to the eco-innovation(s) ([p2]) (repeat for each reference fuel tested): …….

Miscellaneous

50. Type-approved according to the design requirements for transporting dangerous goods: yes/class(es): …/no ([l]):

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY N_2

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

8. Fifth wheel lead for semi-trailer towing vehicle (maximum and minimum): … mm

9. Distance between the front end of the vehicle and the centre of the coupling device: … mm

11. Length of the loading area: … mm

12. Rear overhang: … mm

Masses

13. Mass in running order: … kg

13.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

13.2. Actual mass of the vehicle: … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle:

1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:

1. … kg 2. … kg 3. … kg

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.2. Semi-trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

31. Position of lift axle(s): …

32. Position of loadable axle(s): …

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Bodywork

38. Code for bodywork ([i]): …

41. Number and configuration of doors: …

42. Number of seating positions (including the driver) ([k]): …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …
Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6 ([1])) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: …
Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: …

Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1 smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

50. Type-approved according to the design requirements for transporting dangerous goods: yes/class(es): …/no ([l]):

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY N_3

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

8. Fifth wheel lead for semi-trailer towing vehicle (maximum and minimum): … mm

9. Distance between the front end of the vehicle and the centre of the coupling device: … mm

11. Length of the loading area: … mm

12. Rear overhang: … mm

Masses

13. Mass in running order: … kg

13.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

13.2. Actual mass of the vehicle: … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle:

1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:

1. … kg 2. … kg 3. … kg etc.

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.2. Semi-trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

31. Position of lift axle(s): …

32. Position of loadable axle(s): …

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Bodywork

38. Code for bodywork ([i]): …

41. Number and configuration of doors: …

42. Number of seating positions (including the driver) ([k]): …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: ESC

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: WHSC (EURO VI)

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: …
Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

50. Type-approved according to the design requirements for transporting dangerous goods: yes/class(es): …/no ([l]):

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORIES O_1 AND O_2

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

7. Height: … mm

10. Distance between the centre of the coupling device and the rear end of the vehicle: … mm

11. Length of the loading area: … mm

12. Rear overhang: … mm

Masses

13. Mass in running order: … kg

13.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

13.2. Actual mass of the vehicle: … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc

19. Technically permissible maximum static mass on the coupling point of a semi-trailer or centre-axle trailer: … kg

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30.1. Track of each steered axle: … mm

30.2. Track of all other axles: … mm

31. Position of lift axle(s): …

32. Position of loadable axle(s): …

34. Axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

Bodywork

38. Code for bodywork ([i]): …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Miscellaneous

50. Type-approved according to the design requirements for transporting dangerous goods: yes/class(es): …/no ([l]):

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORIES O_3 AND O_4

(complete and completed vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5. Length: … mm

6. Width: … mm

7. Height: … mm

10. Distance between the centre of the coupling device and the rear end of the vehicle: … mm

11. Length of the loading area: … mm

12. Rear overhang: … mm

Masses

13. Mass in running order: … kg

13.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

13.2. Actual mass of the vehicle: …..kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle:

1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:

1. … kg 2. … kg 3. … kg etc.

19. Technically permissible maximum static mass on the coupling point of a semi-trailer or centre-axle trailer: … kg

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

31. Position of lift axle(s): …

32. Position of loadable axle(s): …

34. Axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

Bodywork

38. Code for bodywork ([i]): …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Miscellaneous

50. Type-approved according to the design requirements for transporting dangerous goods: yes/class(es): …/no ([l]):

51. For special purpose vehicles: designation in accordance with Annex II, section 5: …

52. Remarks ([n]): …

PART II

INCOMPLETE VEHICLES

MODEL C1 — SIDE 1

INCOMPLETE VEHICLES

CERTIFICATE OF CONFORMITY

Side 1

The undersigned [… (*Full name and position*)] hereby certifies that the vehicle:

0.1. Make (Trade name of manufacturer): …

0.2. Type: …

Variant ([a]): …

Version ([a]): …

0.2.1. Commercial name: …

0.2.2. For multi-stage type-approved vehicles, type-approval information of the base/previous stages vehicle (list the information for each stage):

Type: ……

Variant ([a]): ……..

Version ([a]): ……...

Type-approval number, extension number ……..

0.4. Vehicle category: …

0.5. Company name and address of manufacturer: …

0.5.1. For multi-stage type-approved vehicles, company name and address of the manufacturer of the base/previous stage(s) vehicle……

0.6. Location and method of attachment of the statutory plates: …

Location of the vehicle identification number: …

0.9. Name and address of the manufacturer's representative (if any): …

0.10. Vehicle identification number: …

0.11. Date of manufacture: ……

conforms in all respects to the type described in approval (… *type-approval number including extension number*) issued on (… *date of issue*) and

cannot be permanently registered without further approvals

(Place) (Date): …	(Signature): …

MODEL C2 — SIDE 1

INCOMPLETE VEHICLES TYPE-APPROVED IN SMALL SERIES

[Year]	[Sequential number]

CERTIFICATE OF CONFORMITY

Side 1

The undersigned [… (*Full name and position*)] hereby certifies that the vehicle:

0.1. Make (Trade name of manufacturer): …

0.2. Type: …

Variant ([a]): …

Version ([a]): …

0.2.1. Commercial name: …

0.4. Vehicle category: …

0.5. Company name and address of manufacturer: …

0.6. Location and method of attachment of the statutory plates: …

Location of the vehicle identification number: …

0.9. Name and address of the manufacturer's representative (if any): …

0.10. Vehicle identification number: …

0.11. Date of manufacture: ……

conforms in all respects to the type described in approval (… *type-approval number including extension number*) issued on (… *date of issue*) and

cannot be permanently registered without further approvals

(Place) (Date): …	(Signature): …

SIDE 2

VEHICLE CATEGORY M_1

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5.1. Maximum permissible length: … mm

6.1. Maximum permissible width: … mm

7.1. Maximum permissible height: … mm

12.1. Maximum permissible rear overhang: … mm

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the vehicle of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static vertical mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/NG — Biomethane/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30. Axle(s) track: 1. … mm 2. … mm 3. … mm

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

Bodywork

41. Number and configuration of doors: …

42. Number of seating positions (including the driver) ([k]): …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: …

Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6 ([1])) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: …

Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

49. CO_2 emissions/fuel consumption/electric energy consumption ([m]):

1. All power train, except pure electric vehicles

	CO_2 emissions	Fuel consumption
Urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Extra-urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Combined:	… g/km	… l/100 km/m^3/100 km ([1])
Weighted, combined	… g/km	… l/100 km

2. Pure electric vehicles and OVC hybrid electric vehicles

Electric energy consumption (weighted, combined ([1])) … Wh/km

Electric range … km

Miscellaneous

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY M_2

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5.1. Maximum permissible length: … mm

6.1. Maximum permissible width: … mm

7.1. Maximum permissible height: … mm

12.1. Maximum permissible rear overhang: … mm

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle: 1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:
1. … kg 2. … kg 3. … kg

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30. Axle(s) track: 1. … mm 2. … mm 3. … mm

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45. Type or classes of coupling devices which can be fitted: ….

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6 ([l])) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: … THC + NO_x: …

NH_3: … Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY M_3

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5.1. Maximum permissible length: … mm

6.1. Maximum permissible width: … mm

7.1. Maximum permissible height: … mm

12.1. Maximum permissible rear overhang: … mm

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle: 1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:
1. … kg 2. … kg 3. … kg

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30.1. Track of each steered axle: … mm

30.2. Track of all other axles: … mm

32. Position of loadable axle(s): …

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45. Type or classes of coupling devices which can be fitted: ….

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: ESC

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: WHSC (EURO VI)

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: …
Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY N_1

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5.1. Maximum permissible length: … mm

6.1. Maximum permissible width: … mm

7.1. Maximum permissible height: … mm

8. Fifth wheel lead for semi-trailer towing vehicle (maximum and minimum): … mm

12.1. Maximum permissible rear overhang: … mm

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static vertical mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30. Axle(s) track: 1. … mm 2. … mm 3. … mm

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45. Types or classes of coupling devices which can be fitted: …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: …

Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6 ([1])) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: …

THC + NO_x: … NH_3: … Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number):…

48.1. Smoke corrected absorption coefficient: … (m^{-1})

49. CO_2 emissions/fuel consumption/electric energy consumption ([m]):

1. All power train except pure electric vehicles

	CO_2 emissions	Fuel consumption
Urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Extra-urban conditions:	… g/km	… l/100 km/m^3/100 km ([1])
Combined:	… g/km	… l/100 km/m^3/100 km ([1])
Weighted, combined	… g/km	… l/100 km

2. Pure electric vehicles and OVC hybrid electric vehicles

Electric energy consumption (weighted, combined ([1])) … Wh/km

Electric range … km

Miscellaneous

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY N_2

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5.1. Maximum permissible length: … mm

6.1. Maximum permissible width: … mm

7.1. Maximum permissible height: … mm

8. Fifth wheel lead for semi-trailer towing vehicle (maximum and minimum): … mm

12.1. Maximum permissible rear overhang: … mm

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle:
1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:
1. … kg 2. … kg 3. … kg

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

31. Position of lift axle(s): …

32. Position of loadable axle(s): …

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45. Type or classes of coupling devices which can be fitted: ….

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1. test procedure: Type I or ESC ([1])

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: Type I (Euro 5 or 6 ([1])) or WHSC (EURO VI) ([1])

CO: … THC: … NMHC: … NO_x: … THC + NO_x: …

NH_3: … Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: … Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORY N_3

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

3. Powered axles (number, position, interconnection): … …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5.1. Maximum permissible length: … mm

6.1. Maximum permissible width: … mm

8. Fifth wheel lead for semi-trailer towing vehicle (maximum and minimum): … mm

12.1. Maximum permissible rear overhang: … mm

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

16.4. Technically permissible maximum mass of the combination: … kg

17. Intended registration/in service maximum permissible masses in national/international traffic ([1])([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle: 1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:
1. … kg 2. … kg 3. … kg

17.4. Intended registration/in service maximum permissible mass of the combination: … kg

18. Technically permissible maximum towable mass in case of:

18.1. Drawbar trailer: … kg

18.3. Centre-axle trailer: … kg

18.4. Unbraked trailer: … kg

19. Technically permissible maximum static mass at the coupling point: … kg

Power plant

20. Manufacturer of the engine: …

21. Engine code as marked on the engine: …

22. Working principle: …

23. Pure electric: yes/no ([1])

23.1. Hybrid [electric] vehicle: yes/no ([1])

24. Number and arrangement of cylinders: …

25. Engine capacity: … cm^3

26. Fuel: Diesel/Petrol/LPG/CNG-Biomethane/LNG/Ethanol/Biodiesel/Hydrogen ([1])

26.1. Mono-fuel/Bi-fuel/Flex-fuel/Dual-fuel ([1])

26.2. (Dual-fuel only) Type 1A/Type 1B/Type 2A/Type 2B/Type 3B ([1])

27. Maximum power

27.1. Maximum net power ([g]): … kW at … min^{-1} (internal combustion engine) ([1])

27.2. Maximum hourly output: … kW (electric motor) ([1])

27.3. Maximum net power: … kW (electric motor) ([1])

27.4. Maximum 30 minutes power: … kW (electric motor) ([1])

28. Gearbox (type): …

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30.1. Track of each steered axle: … mm

30.2. Track of all other axles: … mm

32. Position of loadable axle(s): …

33. Drive axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Brakes

36. Trailer brake connections mechanical/electric/pneumatic/hydraulic ([1])

37. Pressure in feed line for trailer braking system: … bar

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45. Type or classes of coupling devices which can be fitted: ….

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Environmental performances

46. Sound level

Stationary: … dB(A) at engine speed: … min^{-1}

Drive-by: … dB(A)

47. Exhaust emission level ([l]): Euro …

48. Exhaust emissions ([m])([m1])([m2]):

Number of the base regulatory act and latest amending regulatory act: …

1.1 test procedure: ESC

CO: … HC: … NO_x: … HC + NO_x: … Particulates: …

Smoke opacity (ELR): … (m^{-1})

1.2. test procedure: WHSC (EURO VI)

CO: … THC: … NMHC: … NO_x: … THC + NO_x: … NH_3: …
Particulates (mass): … Particles (number): …

2.1. test procedure: ETC (where applicable)

CO: … NO_x: … NMHC: … THC: … CH_4: …

Particulates: …

2.2. test procedure: WHTC (EURO VI)

CO: … NO_x: … NMHC: … THC: … CH_4: … NH_3: …
Particulates (mass): … Particles (number): …

48.1. Smoke corrected absorption coefficient: … (m^{-1})

Miscellaneous

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORIES O_1 AND O_2

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

Main dimensions

4. Wheelbase ([e]): … mm

4.1. Axle spacing: 1-2: … mm 2-3: … mm 3-4: … mm

5.1. Maximum permissible length: … mm

6.1. Maximum permissible width: … mm

7.1. Maximum permissible height: … mm

10. Distance between the centre of the coupling device and the rear end of the vehicle: … mm

12.1. Maximum permissible rear overhang: … mm

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

19.1. Technically permissible maximum static mass on the coupling point of a semi-trailer or centre-axle trailer: … kg

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

30.1. Track of each steered axle: … mm

30.2. Track of all other axles: … mm

31. Position of lift axle(s): …

32. Position of loadable axle(s): …

34. Axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45. Types or classes of coupling devices which can be fitted: …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Miscellaneous

52. Remarks ([n]): …

SIDE 2

VEHICLE CATEGORIES O_3 AND O_4

(incomplete vehicles)

Side 2

General construction characteristics

1. Number of axles: … and wheels: …

1.1. Number and position of axles with twin wheels: …

2. Steered axles (number, position): …

Masses

14. Mass in running order of the incomplete vehicle: …..kg

14.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

14.2. Actual mass of the incomplete vehicle: …..kg

15. Minimum mass of the vehicle when completed: … kg

15.1. Distribution of this mass amongst the axles: 1. … kg 2. … kg 3. … kg

16. Technically permissible maximum masses

16.1. Technically permissible maximum laden mass: … kg

16.2. Technically permissible mass on each axle: 1. … kg 2. … kg 3. … kg etc.

16.3. Technically permissible mass on each axle group: 1. … kg 2. … kg 3. … kg etc.

17. Intended registration/in service maximum permissible masses in national/international traffic ([1]) ([o])

17.1. Intended registration/in service maximum permissible laden mass: … kg

17.2. Intended registration/in service maximum permissible laden mass on each axle:

1. … kg 2. … kg 3. … kg

17.3. Intended registration/in service maximum permissible laden mass on each axle group:

1. … kg 2. … kg 3. … kg

19.1. Technically permissible maximum static mass on the coupling point of a semi-trailer or centre-axle trailer: … kg

Maximum speed

29. Maximum speed: … km/h

Axles and suspension

31. Position of lift axle(s): …

32. Position of loadable axle(s): …

34. Axle(s) fitted with air suspension or equivalent: yes/no ([1])

35. Tyre/wheel combination ([h]): …

Coupling device

44. Approval number or approval mark of coupling device (if fitted): …

45. Types or classes of coupling devices which can be fitted: …

45.1. Characteristics values ([1]): D: …/ V: …/ S: …/ U: …

Miscellaneous

52. Remarks ([n]): …

Explanatory notes

([1]) Delete where not applicable.

([a]) Indicate the identification code.

([b]) Indicate whether the vehicle is suitable for use in either right or left-hand traffic or both right and left-hand traffic.

([c]) Indicate whether the speedometer fitted has metric or both metric and imperial units.

([d]) This statement shall not restrict the right of a Member State to require technical adaptations for the registration of a vehicle in a Member State other than the one for which it was intended when the direction of the traffic is on the opposite side of the road.

([e]) Entries 4. and 4.1 shall be completed in accordance with the definitions of wheelbase and axle spacing in Article 2 (25) and (26) of Regulation (EU) No 1230/2012, respectively.

([g]) For hybrid electric vehicles, indicate both power outputs.

([h]) Optional equipment can be added under point 52, 'Remarks'.

([i]) The codes described in Annex II, section C, shall be used.

([j]) Indicate only the basic colour(s) as follows: white, yellow, orange, red, violet, blue, green, grey, brown or black.

([k]) Excluding seats that are designated to be used only when the vehicle is stationary and excluding the number of wheelchair positions.

For coaches belonging to the vehicle category M_3, the number of crew members shall be included in the passenger number.

([l]) Add the number of the Euro level and the character corresponding to the provisions used for type-approval.

([m]) Repeat for the various fuels that can be used. Vehicles that can run on both petrol and gaseous fuel, but in which the petrol system is fitted for emergency or starting purposes only, and vehicles of which the petrol tank cannot contain more than 15 litres of petrol, will be regarded as vehicles that only can run on a gaseous fuel.

([m1]) In case of EURO VI dual-fuel engines and vehicles, repeat as appropriate.

([m2]) Only emissions that have been assessed in accordance with the relevant regulatory act or acts shall be stated.

([n]) Where the vehicle is equipped with 24 GHz short-range radar equipment in accordance with Commission Decision 2005/50/EC[31], the manufacturer shall indicate the following: 'Vehicle equipped with 24 GHz short-range radar equipment'.

([o]) The manufacturer may complete these entries for international traffic, for national traffic or for both.

For national traffic, the entry shall mention the code of the country where the vehicle is intended to be registered. The code shall be in accordance with standard ISO 3166-1:2006.

For international traffic, the entry shall mention the directive number (e.g. '96/53/EC' for Council Directive 96/53/EC).

([p]) Eco-innovations.

([p1]) The general code of the eco-innovation(s) shall consist of the following elements, each separated by a blank space:

— Code of the approval authority as set out in Annex VII;

— Individual code of each eco-innovation fitted in the vehicle, indicated in chronological order of the Commission approval decisions.

[31] Commission Decision 2005/50/EC on the harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community (OJ L 21, 25.1.2005, p. 15).

— (E.g. the general code of three eco-innovations approved chronologically as 10, 15 and 16 and fitted to a vehicle certified by the German approval authority should be: 'e1 10 15 16'.)

([p2]) Sum of the CO_2 emissions savings of each individual eco-innovation.

([q]) In the case of completed vehicles of category N_1 within the scope of Regulation (EC) No 715/2007.

ANNEX X

CONFORMITY OF PRODUCTION PROCEDURES

1. **Objectives**

1.1. The conformity of production procedure aims to ensure that each vehicle, system, component and technical separate unit, part or equipment produced is in conformity with the approved type.

1.2. The conformity of production procedure shall always include the assessment of quality-assurance management systems, referred to in point 2 as the 'initial assessment', and the verification of the type-approval subject and product-related controls, referred to in point 3 as 'product conformity arrangements'.

2. **Initial assessment**

2.1. Before granting type-approval, the approval authority shall verify that the manufacturer has established satisfactory arrangements and procedures for ensuring that vehicles, systems, components, separate technical units or parts and equipment are produced in conformity with the approved type.

2.2. Guidance for conducting those assessments may be found in Standard EN ISO 19011:2011 — Guidelines for quality and/or environmental management systems auditing.

2.3. Compliance with the requirements of point 2.1 shall be verified to the satisfaction of the approval authority, as follows:

The approval authority shall be satisfied with the initial assessment and the product conformity arrangements referred to in point 3, taking into account one of the arrangements referred to in points 2.3.1 to 2.3.3, or a combination of those arrangements in full or in part as appropriate.

2.3.1. The initial assessment and verification of product conformity arrangements shall be carried out by the approval authority or a body appointed for this purpose by the approval authority.

2.3.1.1. When considering the extent of the initial assessment to be carried out, the approval authority may take into account the following information:

(a) whether the manufacturer has a certification similar to the one referred to in point 2.3.3, but which has not been qualified or recognised under that point;

(b) in the case of a type-approval of a system, component or separate technical unit, quality system assessments that have been performed by vehicle manufacturer(s) in the premises of the manufacturer of the system, component or separate technical unit, in accordance with one or more of the industry sector specifications satisfying the requirements in the EN ISO 9001:2008 or ISO/TS16949:2009 standards.

(c) whether in one of the Member States one or more of the manufacturer's type approvals recently have been withdrawn, due to unsatisfactory control of conformity of production. In that case, the initial assessment by the approval

authority shall not be limited to accepting the manufacturer's quality system certification, but shall include a verification whether all necessary improvements for ensuring effective control have been implemented, so that vehicles, components, systems or separate technical units are produced in conformity with the approved type.

2.3.2. The initial assessment and verification of product conformity arrangements may be carried out by the approval authority of another Member State or by the body appointed for this purpose by the approval authority.

2.3.2.1. The approval authority of that other Member State shall in that case prepare a statement of compliance, which outlines the areas and production facilities that that approval authority has covered as relevant to the product(s) to be type-approved and to the regulatory acts in accordance with which these products are to be type-approved.

2.3.2.2. On receiving a request for a statement of compliance from the approval authority of a Member State granting type-approval, the approval authority of another Member State shall immediately send that statement of compliance or inform that approval authority that is unable to provide such a statement.

2.3.2.3. The statement of compliance shall include at least the following:

(a) Group or company	(e.g. XYZ Automotive)
(b) Particular organisation	(e.g. regional Division)
(c) Plants/Sites	(e.g. Engine Plant 1 (in country A) — Vehicle Plant 2 (in country B))
(d) Vehicle/Component range	(e.g. All Category M_1 models)
(e) Areas assessed	(e.g. Engine assembly, body pressing and assembly, vehicle assembly)
(f) Documents examined	(e.g. Company and site quality manual and procedures)
(g) Date of the assessment	(e.g. Audit conducted from dd/mm/yyyy to dd/mm/yyyy)
(h) Planned monitoring visit	(e.g. mm/yyyy)

2.3.3. An approval authority may also accept the manufacturer's certification to standards EN ISO 9001:2008 or ISO/TS16949:2009 (the scope of this certification shall in that case cover the product(s) to be approved), or an equivalent certification standard as satisfying the initial assessment requirements of point 2.3., provided that conformity of production is indeed covered by the quality management system and that the manufacturer's type-approval has not been withdrawn as referred to in point 2.3.1.1.(c). The manufacturer shall provide details of the certification and inform the approval authority of any revisions to its validity or scope.

2.4. For the purpose of vehicle type-approval, the initial assessments carried out for the granting of type-approvals for systems, components and separate technical units of the vehicle need not be repeated, but shall be completed by an assessment

of the locations and activities relating to the assembly of the whole vehicle that have not been covered by the former assessments.

3. **Product conformity arrangements**

3.1. Every vehicle, system, component or separate technical unit, part or item of equipment approved pursuant to a UNECE Regulation annexed to the Revised 1958 Agreement and to this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements of this Annex, the said UNECE Regulation and this Regulation.

3.2. Before granting a type-approval pursuant to this Regulation and to a UNECE Regulation annexed to the Revised 1958 Agreement, the approval authority shall verify the existence of adequate arrangements and documented control plans, to be agreed with the manufacturer for each approval, to carry out at specified intervals the tests or associated checks that are necessary to verify continued conformity with the approved type, including, where applicable, tests specified in this Regulation and the said UNECE Regulation.

3.3. The holder of the type-approval shall, in particular:

3.3.1. ensure the existence and application of procedures for effective control of the conformity of products (vehicles, systems, components, separate technical units, parts or equipment to the approved type;

3.3.2. have access to the testing or other appropriate equipment necessary for checking the conformity to each approved type;

3.3.3. ensure that the data resulting from tests or checks are recorded and that annexed documents remain available for a period of up to 10 years to be determined in agreement with the approval authority;

3.3.4. analyse the results of each type of test or check, in order to verify and ensure the stability of the product characteristics, making allowance for variation of an industrial production;

3.3.5. ensure that for each type of product, at least the checks prescribed in this Regulation and the tests prescribed in the relevant regulatory acts listed in Annex IV are carried out;

3.3.6. ensure that any set of samples or test pieces that gives evidence of non-conformity in the type of test in question, gives rise to a further sampling and testing. All the necessary steps shall be taken to restore the production process to ensure conformity with the approved type;

3.4. In the case of step-by-step, mixed or multi-stage type-approvals, the approval authority that is granting a whole-vehicle type-approval may request from any approval authority that has granted type-approval of any relevant system, component or separate technical unit specific details regarding compliance with the conformity of production requirements set out in this Annex.

3.5. The approval authority that is granting a whole-vehicle type-approval and is not satisfied with the reported information referred to in point 3.4., and that has communicated this in writing to the relevant manufacturer and to the approval authority granting the type-approval for the system, component or separate technical unit, shall demand the performance of additional conformity of

production audits or checks, which shall be performed at the site of the manufacturer(s) of those systems, components or separate technical units. The results of this additional conformity of production audits or checks shall immediately be made available to that approval authority.

3.6. Where points 3.4. and 3.5. apply and the approval authority granting the whole-vehicle type-approval has not been satisfied with the additional audit or check results, the manufacturer shall ensure that conformity of production is restored as soon as possible to the satisfaction of that approval authority and of the approval authority granting type-approval of the system, component or separate technical unit.

4. **Continued verification arrangements**

4.1. The authority that has granted type-approval may at any time verify the conformity control methods applied in each production facility by means of periodic audits. The manufacturer shall for that purpose allow access to that authority to the manufacturing, inspection, testing, storage and distribution sites and shall provide all necessary information with regard to the quality management system documentation and records.

4.1.1. The normal arrangements for such periodic audits shall be to monitor the continued effectiveness of the procedures laid down in sections 1 and 2 (initial assessment and product conformity arrangements).

4.1.1.1. Surveillance activities carried out by the technical services (qualified or recognised as required in point 2.3.3) shall be accepted as satisfying the requirement of point 4.1.1 with regard to the procedures established at initial assessment.

4.1.1.2. The normal frequency of verifications by the approval authority (other than those referred to in point 4.1.1.1) shall be such as to ensure that the relevant controls applied in accordance with sections 1 and 2 are reviewed at intervals based on a risk assessment methodology that complies with the international standard ISO 31000:2009 – Risk Management – Principles and Guidelines and such verification shall in any case be conducted at least once every three years. This methodology shall in particular take into account any non-conformity raised by other Member States in the context of Article 54(1).

4.2. At every review, records of tests or checks and records of production, in particular records of those tests or checks documented as required in point 2.2., shall be made available to the inspector.

4.3. The inspector may select samples at random to be tested in the manufacturer's laboratory or in the facilities of the technical service. In such a case only physical test shall be carried out. The minimum number of samples may be determined on the basis of the results of the manufacturer's own verification.

4.4. The inspector who is of the opinion that the level of control is unsatisfactory, or who deems it necessary to verify the validity of the tests carried out in accordance with point 4.2, shall select samples to be sent to a technical service to perform physical tests in accordance with the requirements on conformity of production, set out in the regulatory acts referred to in Annex IV.

4.5. Where unsatisfactory results are found during an inspection or a monitoring review, the approval authority shall take all necessary steps to ensure that the manufacturer restores the conformity of production as rapidly as possible.

4.6. In cases where compliance with UNECE regulations is required by this Regulation, the manufacturer may choose to apply the provisions of this Annex as an equivalent alternative to the conformity of production requirements in the respective UNECE regulations. However, if points 4.4. or 4.5. apply, all separate conformity of production requirements in the UNECE regulations have to be complied with to the satisfaction of the approval authority until it decides that conformity of production has been restored.

ANNEX XI

TEMPLATE AND NUMBERING SYSTEM FOR THE CERTIFICATE AUTHORISING THE PLACING ON THE MARKET AND ENTRY INTO SERVICE OF PARTS AND EQUIPMENT THAT MAY POSE A SERIOUS RISK TO THE CORRECT FUNCTIONING OF ESSENTIAL SYSTEMS

1. **General requirements**

1.1. The placing on the market of parts or equipment that may pose a serious risk to the correct functioning of systems that are essential for the safety of the vehicle or for its environmental performance shall be subject to authorisation in accordance with Article 55(1) of Regulation (EU) No xxx/201X.

1.2. Such authorisation shall take the form of a certificate, a model of which is contained in the Appendix to this Annex, and shall be numbered in accordance with the provisions of point 2.

1.3. The certificate referred to in point 1.2. shall include requirements for constructional and functional safety, as well as for environmental protection and, where needed, for testing standards. Those requirements may be based on the regulatory acts listed in Annex IV to Regulation (EU) XXX/201X, may be developed according to the relevant state of safety, environmental and testing technology, or, if this is an appropriate way of achieving the required safety or environmental objectives, may consist of a comparison of the part or equipment with the environmental or safety performance of the original vehicle, or of any of its parts, as appropriate.

1.4. This Annex shall not apply to a part or piece of equipment that is not listed in Annex XIII. For any entry or group of entries in Annex XIII, a reasonable transitional period shall be fixed to allow the manufacturer of the part or equipment to apply for and obtain an authorisation. At the same time, a date may be fixed, where appropriate, to exclude from the application of this Annex parts and equipment designed for vehicles that have been type-approved before that date.

2. **Numbering system**

2.1. The number of the certificate for the placing on the market and entry into service of parts or equipment that may pose a serious risk to the correct functioning of essential systems shall consist of a total of five sections as specified in points 2.1.1. to 2.1.5. The sections shall be separated by an asterisk (‘*’).

2.1.1. Section 1: The lower-case letter ‘e’ followed by the distinguishing number of the Member State (provided in the Appendix of Annex VII) issuing the certificate.

2.1.2. Section 2: The number of Regulation (EU) XXX/201X: ‘XXX/201X’ shall be indicated.

2.1.3. Section 3: The identification of the part or equipment, according to the list in Annex XIII.

– for parts or equipment having a significant impact on the vehicle's constructional safety and/or functional safety, this means the symbol 'I' followed by the '/'character and the correspondent 'Item No' from the list in point I of Annex XIII. The 'Item No' shall have three digits and start from '001'.

– for parts or equipment having a significant impact on the environmental performance of the vehicle, this means the symbol 'II' followed by the '/'character and the correspondent 'Item No' from the list in point II of Annex XIII. The 'Item No' shall have three digits and start from '001'.

2.1.4. Section 4: Sequential number for the certificate.

– a sequential number with leading zeros (as applicable), to denote the certificate number. The sequential number shall have three digits and start from '001'.

2.1.5. Section 5: Sequential number to denote the extension level of the certificate.

– a two-digit sequential number, with leading zero as applicable, starting from '00' for each certificate number issued.

2.2. Format of the numbering of a certificate (with fictive sequential numbers for explanation purposes).

Example of the number of a certificate issued by Bulgaria for parts or equipment integrated in a vehicle type-approved according to Regulation (EU) No XXX/201X:

– e34*XXX/201X*II/002*148*00

  – e34 = Bulgaria (section 1)

  – XXX/201X = Regulation (EU) XXX/201X (section 2)

  – II/002 = Item 002 on the list of parts or equipment having a significant impact on the environmental performance of the vehicle (section 3)

  – 148 = certificate sequential number (section 4)

  – 00 = extension level number (section 5)

Example of the number of a certificate issued by Austria for parts or equipment integrated in a vehicle type-approved according to Regulation (EU) No XXX/201X, which has been extended once:

– e12*168/2013*I/034*225*01

  – e12 = Austria (section 1)

  – XXX/201X = Regulation (EU) XXX/201X (section 2)

– I/034 = Item 034 on the list of parts or equipment having a significant impact on the vehicle's construction safety and/or functional safety (section 3)

– 225 = certificate sequential number (section 4)

– 01 = extension level number (section 5)

Appendix

MODEL OF THE EU AUTHORISATION CERTIFICATE

MODEL

Maximum format: A4 (210 × 297 mm)

EU AUTHORISATION CERTIFICATE

Stamp of approval authority

Communication concerning:		for the placing on the market of parts or equipment that may pose a serious risk to the correct functioning of systems that are essential for the safety of the vehicle or for its environmental performance
— authorisation certificate ([1]) — extension of authorisation certificate ([1]) — refusal of authorisation certificate ([1]) — withdrawal of authorisation certificate ([1])	}	

SECTION I

Kind of part/equipment: …….

Part/equipment([1]) numbers: …….

EU authorisation certificate number: …….

Reason for extension: …….

Name and address of manufacturer: …….

Name(s) and address(es) of manufacture plant(s): …….

Name and address of the manufacturer's representative (if any): ……..

SECTION II

The part/equipment([1]) is specifically intended for installation on the following vehicle(s):

Make (trade name of manufacturer): …….

Type(s)([2]): …….

Variant(s)([2]): …….

Version(s)([2]): …….

SECTION III

Requirements for:

(a) vehicle construction safety([1]): …….

(b) vehicle functional safety([1]): …….

(c) vehicle environmental protection([1]): …….

(d) testing standards([1]): …….

SECTION IV

Requirements based on:

(a) Annex(es)([3]) … to Commission Delegated Regulation (EU) No …/…, (and Annex(es)([3]) …(a) to Commission Delegated Regulation (EU) No …/…)([1]), as last amended by (Commission Delegated)([1]) Regulation (EU) No …/…([1])([4])

(b) a comparison of the part/equipment([1]) with the safety/environmental([1]) performance of the original vehicle/parts of the original vehicle([1]) (explain)([1])……..……
……..……

SECTION V

Technical service responsible for carrying out the tests: …….

Date of test report: …….

Number of test report: …….

SECTION VI

The part/equipment([1]) does not/does([1]) impair the functioning of those systems that are essential for the safety of the vehicle or its environmental performance.

The authorisation certificate is granted/extended/refused/withdrawn([1])

Place: ……..……

Date: ……..……

Name and signature (or visual representation of an 'advanced electronic signature' according to Directive 1999/93/EC, including data for verification): ……..…

Attachments:

Test report

_____

Explanatory notes

(These explanatory notes are not to be included in the certificate)

([1]) Delete where not applicable.

([2]) Indicate type, variant and version in accordance with the categorisation criteria set out in Annex II.

([3]) The Roman numeral of the relevant Annex to the Commission Delegated Regulation or multiple Roman numerals of the relevant Annexes to the same Commission Delegated Regulation.

([4]) Indicate the latest amendment of the Commission Delegated Regulation according to the amendment applied for the EU type-approval.

ANNEX XII

SMALL SERIES LIMITS

1. The number of units of one type of vehicle to be registered, sold or put into service annually in the Union shall not exceed, pursuant to Article 39, the figures shown in the following table for the vehicle category in question:

Category	Units
M_1	1 000
M_2, M_3	0
N_1	1000
N_2, N_3	0
O_1, O_2	0
O_3, O_4	0

2. The number of units of one type of vehicle to be registered, sold or put into service annually in a Member State, shall be determined by that Member State but shall not exceed, pursuant to Article 40, the figures shown in the following table for the vehicle category in question:

Category	Units
M_1	100
M_2, M_3	250
N_1	500 until 31October 2016 250 from 1 November 2016
N_2, N_3	250
O_1, O_2	500
O_3, O_4	250

3. The number of units of one type of vehicle to be registered, sold or put into service annually in a Member State shall be determined by that Member State but shall not exceed, pursuant to Article 6(2) of Regulation (EU) No 1230/2012, the figures shown in the following table for the vehicle category in question:

Category	Units
M_2, M_3	1 000
N_2, N_3	1 200
O_3, O_4	2 000

ANNEX XIII

LIST OF PARTS OR EQUIPMENT THAT ARE CAPABLE OF POSING A SIGNIFICANT RISK TO THE CORRECT FUNCTIONING OF SYSTEMS THAT ARE ESSENTIAL FOR THE SAFETY OF THE VEHICLE OR ITS ENVIRONMENTAL PERFORMANCE, THE PERFORMANCE REQUIREMENTS OF SUCH PARTS AND EQUIPMENT, THE APPROPRIATE TEST PROCEDURES, AND MARKING AND PACKAGING PROVISIONS

I. Parts or equipment having a significant impact on vehicle safety

Item No	Item description	Performance requirement	Test procedure	Marking requirement	Packaging requirements
1	[…]				
2					
3					

II. Parts or equipment having a significant impact on the environmental performance of the vehicle

Item No	Item description	Performance requirement	Test procedure	Marking requirement	Packaging requirements
1	[…]				
2					
3					

ANNEX XIV

LIST OF EU TYPE-APPROVALS GRANTED, REFUSED OR WITHDRAWN IN ACCORDANCE WITH THE RELEVANT REGULATORY ACTS

Stamp of approval authority

List number:

Covering the period: … to …

The following information shall be provided regarding each EU type-approval that has been granted, extended, refused or withdrawn in the above mentioned period:

Manufacturer:

EU type-approval number:

Reason for extension (where applicable):

Make:

Type:

Date of issue:

First date of issue (in the case of extensions):

Reason for refusal (where applicable):

Reason for withdrawal (where applicable):

ANNEX XV

REGULATORY ACTS FOR WHICH A MANUFACTURER MAY BE DESIGNATED AS A TECHNICAL SERVICE

1. Objectives and scope

1.1. This Annex lays down the list of the regulatory acts for which a manufacturer may be designated as a technical service in accordance with Article 76(1).

1.2. It also includes appropriate provisions concerning the designation of a manufacturer as technical service, to be applied in the framework of the type-approval of vehicles, components and separate technical units concerned by Part I of Annex IV.

1.3. This Annex however does not apply to manufacturers who apply for the EU type-approval of vehicles produced in small series, as referred to in Article 39.

2. Designation of a manufacturer as a technical service

2.1. A manufacturer designated as a technical service is a manufacturer who has been designated by the approval authority as a testing laboratory to carry out on its behalf the approval tests.

The expression 'to carry out tests' is not restricted to the measurement of performances, but also covers the registration of test results and the submission to the approval authority of a report, including the relevant conclusions.

It also covers the checking of compliance with those provisions that do not necessarily require measurement. This is the case for the assessment whether the design complies with the legislative requirements.

3. List of regulatory acts and restrictions

	Subject	Regulatory act reference
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UNECE Regulation No 28
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UNECE Regulation No 10
18A	Manufacturer's statutory plate and vehicle identification number	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48

27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010[32]
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UNECE Regulation No 121
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010
36A	Heating systems	Regulation (EC) No 661/2009 UNECE Regulation No 122 Except the provisions in Annex 8 relating to LPG combustion heaters and LPG heating systems
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010
44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 43 Restricted to the provisions included in Annex 21
46	Tyres	Directive 92/23/EEC
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012

[32] Commission Regulation (EU) No 1005/2010 of 8 November 2010 concerning type-approval requirements for motor vehicle towing devices and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 291, 9.11.2010, p. 36).

49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UNECE Regulation No 61
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55 Restricted to the provisions included in Annex 5 (up to and including paragraph 8) and Annex 7
61	Air-conditioning system	Directive 2006/40/EC

Appendix

Designation of a manufacturer as technical service and subcontracting

1. **General**

1.1. The designation and notification of a manufacturer as a technical service shall be made in accordance with Articles 72 to 86 and any subcontracting shall be done in accordance with the provisions of this Appendix.

2. **Subcontracting**

2.1. In accordance with Article 75(1), a technical service may nominate a subcontractor for performing tests on his behalf.

2.2. For the purposes of this Appendix, the following definition shall apply:

– 'Subcontractor' means either a subsidiary of the technical service that has been entrusted by that technical service with testing activities inside its own organisation or a third party under contract with that technical service to perform test activities.

2.3. The use of the services of a subcontractor does not liberate the technical service from its obligation to comply with Articles 73, 74, 84 and 85, and in particular with those concerning the skills of the technical services and compliance with Standard EN ISO/IEC 17025:2005.

2.4. Section 2 of Annex XV shall apply to the subcontractor.

3. **Test report**

Test reports shall be drafted in accordance with the general requirements set out in Appendix 3 of Annex V to Regulation (EU) No XXX/201X.

ANNEX XVI

CONDITIONS FOR THE USE OF VIRTUAL TESTING METHODS BY A MANUFACTURER OR A TECHNICAL SERVICE

1. Objectives and scope

This Annex lays down provisions concerning virtual testing in accordance with Article 28(4).

.

2. List of regulatory acts

	Subject	**Regulatory act reference**
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UNECE Regulation No 58
6A	Vehicle access and manoeuvrability	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UNECE Regulation No 11
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UNECE Regulation No 46
12A	Interior fittings	Regulation (EC) No 661/2009 UNECE Regulation No 21
16A	External projections	Regulation (EC) No 661/2009 UNECE Regulation No 26
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 48
27A	Towing device	Regulation (EC) No 661/2009

		Regulation (EU) No 1005/2010
32A	Forward field of vision	Regulation (EC) No 661/2009 UNECE Regulation No 125
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 73
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012
49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UNECE Regulation No 61
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 55
50B	Close-coupling device (CCD); fitting of an approved type of CCD	Regulation (EC) No 661/2009 UNECE Regulation No 102
52A	M2 and M3 vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 107
52B	Strength of the superstructure of large passenger vehicles	Regulation (EC) No 661/2009 UNECE Regulation No 66

57A	Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	Regulation (EC) No 661/2009 UNECE Regulation No 93

Appendix 1

General conditions for the use of virtual testing methods

1. **Virtual test pattern**

The following scheme shall be used as basis structure for describing and conducting virtual testing:

(a) purpose;

(b) structure model;

(c) boundary conditions;

(d) load assumptions;

(e) calculation;

(f) assessment;

(g) documentation.

2. **Fundamentals of computer simulation and calculation**

2.1. *Mathematical model*

The mathematical model shall be supplied by the manufacturer. It shall reflect the complexity of the structure of the vehicle, system, component or separate technical unit to be tested in relation to the requirements of the relevant regulatory act and its boundary conditions.

The same provisions shall apply for testing components or separate technical units independently from the vehicle.

2.2. *Validation process of the mathematical model*

The mathematical model shall be validated against the actual test conditions.

To that effect a physical test shall be conducted to compare the results obtained when using the mathematical model with the results of a physical test. Comparability of the test results shall be proven. The manufacturer or the technical service shall draft a validation report and submit it to the approval authority.

Any change to the mathematical model or to the software that is likely to invalidate the validation report shall be brought to the attention of the approval authority, which may require that a new validation process is conducted.

The flow chart of the validation process is shown in Appendix 3.

2.3. *Documentation*

The manufacturer shall make available to the technical service and document the data and auxiliary tools used for simulation and calculation.

3. **Tools and support**

The manufacturer shall supply the technical service at its request with the necessary tools to conduct the virtual testing, including appropriate software, or provide that technical service access to these tools.

The manufacturer shall also provide appropriate support to the technical service.

The access and support provided by the manufacturer to a technical service does not exempt the technical service from its obligations regarding the skills of its personnel, the payment of licence rights and confidentiality.

Appendix 2

Specific conditions for the use of virtual testing methods

1. List of regulatory acts

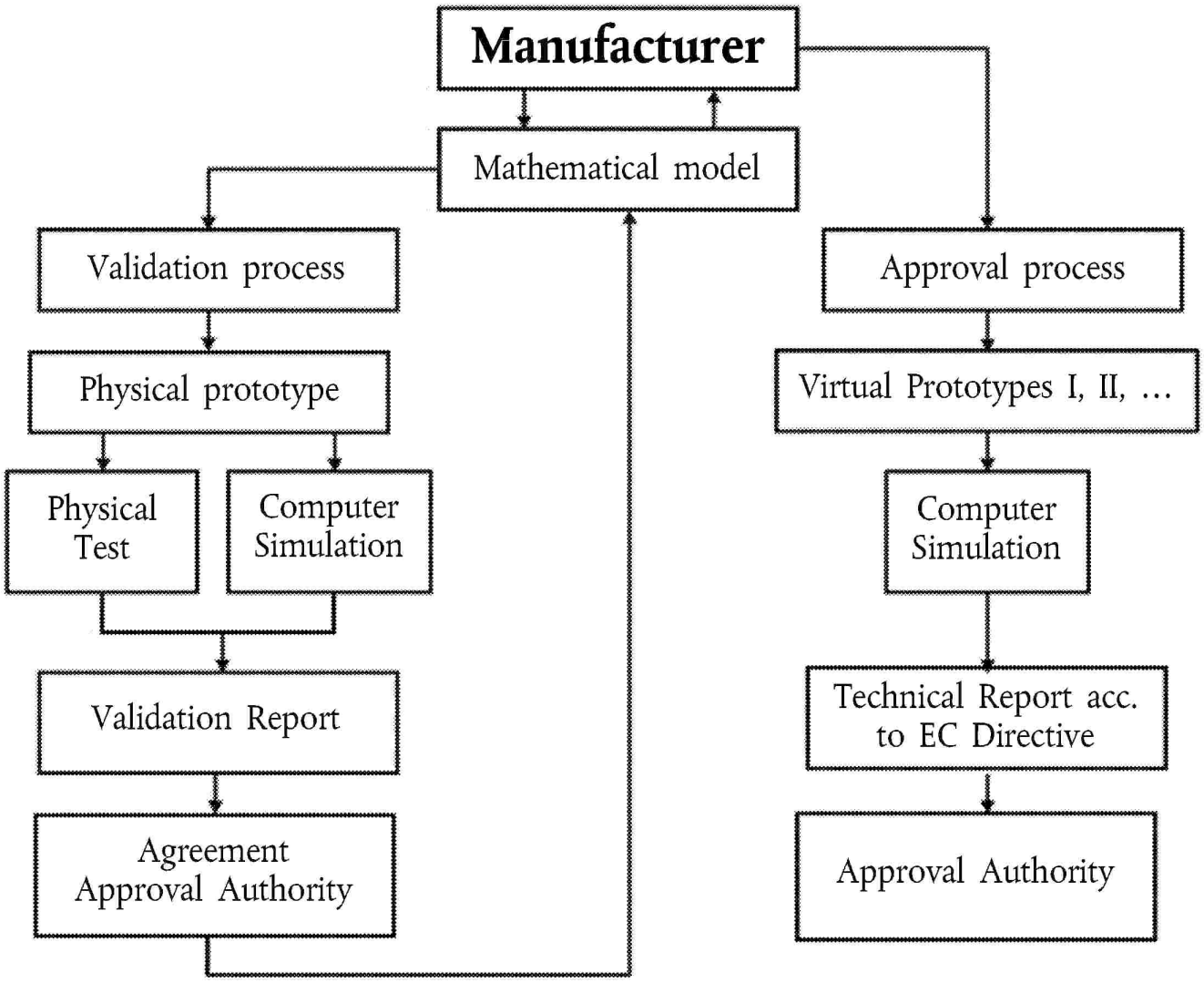
	Regulatory act reference	Annex and paragraphs	Specific conditions
3B	Regulation (EC) No 661/2009 UNECE Regulation No 58	Paragraphs 2.3, 7.3. and 25.6 of UNECE Regulation No 58.	Dimensions and resistance to forces.
6A	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	Annex II, Part I and 2 of Regulation (EU) No 130/2012.	Dimensions of steps, running boards and handholds.
6B	Regulation (EC) No 661/2009 UNECE Regulation No 11	Annex 3 of UNECE Regulation No 11. Annex 4, paragraph 2.1. of UNECE Regulation No 11. Annex 5 of UNECE Regulation No 11.	Tensile strength tests and resistance of latches to acceleration.
8A	Regulation (EC) No 661/2009 UNECE Regulation No 46	Paragraph 15.2.4. of UNECE Regulation No 46.	Prescribed fields of vision of rear-view mirrors.
12A	Regulation (EC) No 661/2009 UNECE Regulation No 21	(a) Paragraphs 5. to 5.7. of UNECE Regulation No 21. (b) Paragraph 2.3. of UNECE Regulation No 21.	(a) Measurement of all radii of curvature and of all projections except for those requirements where a force has to be applied in order to check compliance with the provisions. (b) Determination of the head-impact zone.
16A	Regulation (EC) No 661/2009 UNECE Regulation No 26	Paragraph 5.2.4. of UNECE Regulation No 26 All provisions in paragraphs 5 (General requirements) and 6 (Particular requirements) of UNECE Regulation No 26.	Measurement of all radii of curvature and of all projections except for those requirements where a force has to be applied in order to check compliance with the provisions.

20A.	Regulation (EC) No 661/2009 UNECE Regulation No 48	Paragraph 6. (Individual specifications), and Annexes 4, 5 and 6 to UNECE Regulation No 48.	The test drive provided for in paragraph 6.22.9.2.2 shall be performed on a real vehicle.
27A	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	Annex II, point 1.2. of Regulation (EU) No 1005/2010.	Tractive and compressive static force.
32A	Regulation (EC) No 661/2009 UNECE Regulation No 125	Paragraph 5 (Specifications) of UNECE Regulation No 125.	Obstructions and field of vision.
35A	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	Annex III, points 1.1.2. and 1.1.3. of Regulation (EU) No 1008/2010.	Determination of the swept area only.
37A	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010	Annex II, point 2. of Regulation (EU) No 1009/2010.	Verification of the dimensional requirements.
42A	Regulation (EC) No 661/2009 UNECE Regulation No 73	Paragraph 12.10 of UNECE Regulation No 73.	Resistance under a horizontal force and deflection measurement.
48A.	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	(a) Annex I, Part B, points 7 and 8 of Regulation (EU) No 1230/2012. (b) Annex I, Part C, points 6 and 7 of Regulation (EU) No 1230/2012.	(a) Check of compliance with the manoeuvrability requirements including manoeuvrability of vehicles fitted with lift- or loadable axles. (b) Measurement of the maximum rear swing-out.
49A	Regulation (EC) No 661/2009 UNECE Regulation No 61	Paragraphs 5 and 6 of UNECE Regulation No 61.	Measurement of all radii of curvature and of all projections except for those requirements where a force has to be applied in order to check compliance with the provisions.
50A	Regulation (EC) No 661/2009 UNECE Regulation No 55	(a) Annex 5 'Requirements for mechanical coupling devices' of UNECE Regulation No 55. (b) Annex 6, paragraph 1.1.	(a) All provisions of paragraphs 1 to 8 included.

		of UNECE Regulation No 55. (c) Annex 6, paragraph 3 of UNECE Regulation No 55.	(b) Strength tests on mechanicals couplings of simple design may be replaced by virtual tests. (c) Paragraphs 3.6.1. (Strength test), 3.6.2. (Resistance to buckling) and 3.6.3. (Resistance to bending moment) only.
52A	Regulation (EC) No 661/2009 UNECE Regulation No 107	Annex 3 of UNECE Regulation No 107.	Paragraph 7.4.5. (calculation method).
52B	Regulation (EC) No 661/2009 UNECE Regulation No 66	Annex 9 of UNECE Regulation No 66.	Computer simulation of rollover test on complete vehicle as an equivalent approval method.
57A	Regulation (EC) No 661/2009 UNECE Regulation No 93	Annex 5, paragraph 3 of UNECE Regulation No 93.	Resistance under a horizontal force and deflection measurement.

Appendix 3

Validation process



ANNEX XVII

PROCEDURES TO BE FOLLOWED DURING EU MULTI-STAGE TYPE-APPROVAL

1. Obligations of manufacturers

1.1. The satisfactory operation of the EU multi-stage type-approval requires joint action by all the manufacturers concerned. To this end approval authorities must ensure, before granting first and subsequent stage approvals, that suitable arrangements exist between the relevant manufacturers for the supply and interchange of documents and information, so that the completed type of vehicle meets the technical requirements of all the relevant regulatory acts referred to in Annex IV. Such information must include details of relevant system, component and separate technical unit type-approvals and of vehicle parts that form part of the incomplete vehicle but have not yet been approved.

1.2. Each manufacturer involved in a EU multi-stage type-approval shall be responsible for the approval and conformity of production of all systems, components or separate technical units manufactured by him or added by him to the previously built stage. The manufacturer of the subsequent stage shall not be responsible for objects that have been approved in an earlier stage, except where he modifies relevant parts to such an extent that the previously granted approval becomes invalid.

2. Obligations of approval authorities

2.1. The approval authority shall:

(a) verify that all EU type-approval certificates issued pursuant to the regulatory acts that are applicable for vehicle type-approval cover the type of vehicle at its state of completion and correspond to the prescribed requirements;

(b) ensure that all the relevant data, taking account of the state of completion of the vehicle, is included in the information folder;

(c) by reference to the documentation ensure that the vehicle specification(s) and data contained in Part I of the vehicle information folder are included in the data in the information packages and in the EU type-approval certificates issued in accordance with the relevant regulatory acts; and in the case of a completed vehicle, where an item number in Part I of the information folder is not included in the information package of any of the regulatory acts, confirm that the relevant part or characteristic conforms to the particulars in the information folder;

(d) on a selected sample of vehicles from the type to be approved carry out or arrange to be carried out inspections of vehicle parts and systems to verify that the vehicle(s) is/are built in accordance with the relevant data contained in the authenticated information package in accordance with all relevant regulatory acts;

(e) where required carry out, or arrange to be carried out, relevant installation checks for separate technical units.

2.2. The number of vehicles to be inspected for the purposes of paragraph 2.1 (d) shall be sufficient to permit the proper control of the various combinations to be EU type-approved according to the state of completion of the vehicle and the following criteria:

– engine,

– gearbox,

– powered axles (number, position, interconnection),

– steered axles (number and position),

– body styles,

– number of doors,

– hand of drive,

– number of seats,

– level of equipment

3. Applicable requirements

3.1. EU multi-stage type-approvals shall be granted on the basis of the state of completion of the type of vehicle and shall incorporate all approvals granted at earlier stages.

3.2. For the whole-vehicle type-approval, this Regulation (in particular the requirements of Annex II and the particular acts listed in Annex IV) shall apply in the same manner as if the approval would have been granted (or extended) to the manufacturer of the base vehicle.

3.2.1 Where a type of system, component or separate technical unit has not been modified, the system, component or separate technical unit type-approval granted in the previous stage shall remain valid until the expiration date for the first registration, as specified in the particular regulatory act.

3.2.2. Where a type of system has been modified at the subsequent stage of completion of the vehicle, to the extent that the system has to be retested for type-approval purposes, that retesting shall be limited to only those parts of the system that have been modified or affected by the changes.

3.2.3 Where a type of vehicle or a type of system has been modified by another manufacturer at the subsequent stage of completion of the vehicle, to the extent that, apart from the manufacturers name, the vehicle or system may still be considered as the same type, the requirement applying to existing types may still be applied as long as the date for first registration in the relevant regulatory act has not been reached.

3.2.4. The change of category of a vehicle shall lead to the application of the relevant requirements to the new category of vehicle. The type-approval certificates from the previous category shall be accepted provided that the vehicle complies with the same requirements as, or more stringent than, those applying to the new category.

3.3. Subject to the agreement of the approval authority, a whole-vehicle type-approval granted to the manufacturer of the subsequent stage of completion of the vehicle does not need to be extended or revised where an extension given at the previous stage vehicle does not affect the subsequent stage or the technical data of the vehicle. However, the type-approval number including the extension of the previous stage(s) vehicle shall be copied in point 1.2.2 of the certificate of conformity of the subsequent stage vehicle.

3.4. Where the cargo area of a complete or completed vehicle of category N or O is modified by another manufacturer for the addition of removable fittings to store and secure the cargo (for example, load space lining, storage racks and roof racks), such items can be treated as part of the pay-mass and an approval is not needed, provided both of the following conditions are met:

(a) the modifications do not affect the vehicle's type-approval in any way, other than an increase of the actual mass of the vehicle;

(b) the added fittings can be removed without using special tools.

4. Identification of the vehicle

4.1. The VIN, prescribed by Regulation (EU) No 19/2011, shall be retained during all the subsequent stages of the type-approval to ensure the "traceability" of the process.

4.2. At the second and subsequent stages, in addition to the statutory plate prescribed by Regulation (EU) No 19/2011, each manufacturer shall affix to the vehicle an additional plate the model of which is shown in the appendix to this Annex. This plate shall be firmly attached, in a conspicuous and readily accessible position on a part not subject to replacement in use. It shall clearly and indelibly show the following information in the order listed:

– the name of the manufacturer,

– sections 1, 3 and 4 of the EU type-approval number,

– the stage of approval,

– the VIN of the base vehicle,

– the technically permissible maximum laden mass of the vehicle where the value has changed during the current stage of approval,

– the technically permissible maximum laden mass of the combination (where the value has changed during the current stage of approval and where the vehicle is permitted to tow a trailer). "0" shall be used if the vehicle is not permitted to tow a trailer.

– the technically permissible maximum mass on each axle, listed in order from front to rear where the value has changed during the current stage of approval,

– in the case of a semi-trailer or centre axle trailer, the technically permissible maximum mass at the coupling point where the value has changed during the current stage of approval.

Unless otherwise provided for in points 4.1 and 4.2 the plate shall comply with the requirements set out in Annex I and Annex II to Regulation (EU) No 19/2011.

Appendix

MODEL OF THE MANUFACTURER'S ADDITIONAL PLATE

The example below is given as a guide only.

MANUFACTURER'S NAME (stage 3)
e2*201X/XX*2609
Stage 3
WD9VD58D98D234560
1 500 kg
2 500 kg
1 – 700 kg
2 – 810 kg

ANNEX XVIII
ACCESS TO VEHICLE OBD AND VEHICLE REPAIR AND MAINTENANCE INFORMATION

1. Introduction

This Annex lays down technical requirements for the accessibility of vehicle OBD and vehicle repair and maintenance information.

2. Access to vehicle OBD and vehicle repair and maintenance

2.1. A manufacturer shall put in place the necessary arrangements and procedures, in accordance with Article 65, to ensure that vehicle OBD and vehicle repair and maintenance information is accessible through websites using a standardised format in a readily accessible and prompt manner, and in a manner which is non-discriminatory compared to the provisions given or access granted to authorised dealers and repairers.

2.2. An approval authority shall only grant type-approval after receiving from the manufacturer a Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information.

2.3. The Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information shall serve as the proof of compliance with Article 68.

2.4. The Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information shall be drawn up in accordance with the model set out in Appendix 1 to this Annex.

2.5. The vehicle OBD and vehicle repair and maintenance information shall include the following:

2.5.1. an unequivocal identification of the vehicle, system, component or separate technical unit for which the manufacturer is responsible;

2.5.2. service handbooks, including service and maintenance records;

2.5.3. technical manuals;

2.5.4. component and diagnosis information (such as minimum and maximum theoretical values for measurements);

2.5.5. wiring diagrams;

2.5.6. diagnostic trouble codes, including manufacturer specific codes;

2.5.7. the software calibration identification number applicable to a type of vehicle;

2.5.8. information provided concerning, and delivered by means of, proprietary tools and equipment;

2.5.9. data record information and two-directional monitoring and test data;

2.5.10. standard work units or time periods for repair and maintenance tasks if they are made available to authorised dealers and repairers of the manufacturer either directly or through a third party;

2.5.11. in case of multi-stage type-approval, the information required under section 3, and all other information necessary to comply with the requirements set out in Article 65.

2.6. The manufacturer shall make available to interested parties the following information:

2.6.1. relevant information to enable the development of replacement components that are critical to the correct functioning of the OBD system;

2.6.2. information to enable the development of generic diagnostic tools.

2.7. For the purposes of point 2.6.1., the development of replacement components shall not be restricted by any of the following:

2.7.1. the unavailability of pertinent information;

2.7.2. the technical requirements relating to malfunction indication strategies if the OBD thresholds are exceeded or if the OBD system is unable to fulfil the basic OBD monitoring requirements of this Regulation;

2.7.3. specific modifications to the handling of OBD information to deal independently with vehicle operation on petrol or on gas;

2.7.4. the type-approval of gas-fuelled vehicles that contain a limited number of minor deficiencies.

2.8. With regard to vehicles of categories falling within the scope of Regulation No 595/2009/EC, for the purposes of point 2.6.2., where manufacturers use diagnostic and test tools in accordance with ISO 22900 – Modular vehicle communication interface (MVCI) – and ISO 22901 – Open diagnostic data exchange (ODX) in their franchised networks –, the ODX files shall be accessible to independent operators via the website of the manufacturer.

3. Multi-stage type-approval

3.1. In the case of a multi-stage type-approval, the final manufacturer shall be responsible for providing access to vehicle OBD and vehicle repair and maintenance information regarding its own manufacturing stage(s) and the link to the previous stage(s).

3.2. In addition, the final manufacturer shall on its website provide independent operators with the following information:

3.2.1. the website address of the manufacturer(s) responsible for the previous stage(s);

3.2.2. the name and address of all the manufacturers responsible for the previous stage(s);

3.2.3. the type-approval number(s) of the previous stage(s);

3.2.4. the engine number.

3.3. Each manufacturer responsible for a particular stage or stages of type-approval shall be responsible for providing through his website access to vehicle OBD and vehicle repair and maintenance information regarding the stage(s) of type-approval for which he is responsible and the link to the previous stage(s).

3.4. The manufacturer responsible for a particular stage or stages of type-approval shall provide the following information to the manufacturer responsible for the next stage:

3.4.1. the certificate of conformity relating to the stage(s) for which he is responsible;

3.4.2. the Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information, including its appendices;

3.4.3. the type-approval number corresponding to the stage(s) for which he is responsible;

3.4.4. the documents referred to in points 3.4.1., 3.4.2. and 3.4.3. as provided by the manufacturer(s) involved in the previous stage(s).

3.5 Each manufacturer shall authorise the manufacturer responsible for the next stage to pass the documents to the manufacturers responsible for any subsequent stages and the final stage.

3.6. In addition, on a contractual basis, the manufacturer responsible for a particular stage or stages of type-approval shall:

3.6.1. provide the manufacturer responsible for the next stage with access to vehicle OBD and vehicle repair and maintenance information and interface information corresponding to the particular stage(s) for which he is responsible;

3.6.2. provide, at the request of a manufacturer responsible for a subsequent stage of type-approval, with access to vehicle OBD and vehicle repair and maintenance information and interface information corresponding to the particular stage(s) for which he is responsible.

3.7. A manufacturer, including a final manufacturer, may only charge fees in accordance with Article 67 concerning the particular stage(s) for which he is responsible.

A manufacturer, including a final manufacturer, shall not charge fees for providing information relating to the website address or contact details of any other manufacturer.

4. Customer adaptations

4.1. By derogation from section 2, if the number of systems, components or separate technical units subject to a specific customer adaptation is lower than 250 units produced worldwide, repair and maintenance information for the customer adaptation shall be provided in a readily accessible and prompt manner, and in a manner which is non-discriminatory compared to the provisions given or access granted to authorised dealers and repairers.

For the servicing and reprogramming of the electronic control units relating to the customer adaptation, the manufacturer shall make the respective proprietary specialist diagnostic tool or test equipment available to independent operators as provided to authorised repairers.

The customer adaptations shall be listed on the manufacturer's repair and maintenance information website and mentioned in the Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information at the time of type-approval.

4.2. Manufacturers shall make the proprietary specialist diagnostic tool or test equipment to service the customer-adapted systems, components or technical units available to independent operators via sale and rent.

4.3. The manufacturer shall mention in the Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information, at the time of type-approval, the customer adaptations for which the obligation under section 2 to provide access to vehicle OBD and vehicle repair and maintenance information in a standardised format is derogated from and any electronic control unit related to them.

Those customer adaptations and any electronic control unit related to them shall also be listed on the manufacturer's repair and maintenance information website.

5. Small volume manufacturers

5.1. By derogation from section 2, manufacturers whose worldwide annual production of a type of vehicle, system, component or separate technical unit subject to this Regulation is for vehicles of category M1 and N1 less than 1000 vehicles or for vehicles of category M2, M3, N2, N3 and O less than 250 units, shall provide access to repair and maintenance information in a readily accessible and prompt manner, and in a manner that is non-discriminatory compared to the provisions given or access granted to authorised dealers and repairers.

5.2. The vehicle, system, component and separate technical unit subject to point 5.1. shall be listed on the manufacturer's repair and maintenance information website.

5.3. The approval authority shall inform the Commission of each type-approval granted to small volume manufacturers.

6. Requirements

6.1. Vehicle OBD and vehicle repair and maintenance information available through websites shall follow the common standard referred to in Article 65.

Those requiring the right to duplicate or republish the information shall negotiate directly with the manufacturer concerned. Information for training material shall also be available, but may be presented through other media than websites.

Information on all parts of the vehicle, with which the vehicle, as identified by the VIN and any additional criteria such as wheelbase, engine output, trim level or options, is equipped by the vehicle manufacturer and that can be replaced by spare parts offered by the vehicle manufacturer to its authorised repairers or dealers or

third parties by means of reference to original equipment (OE) parts number, shall be made available in a database that is easily accessible to independent operators.

This database shall comprise the VIN, OE parts numbers, OE naming of the parts, validity attributes (valid-from and valid-to dates), fitting attributes and, where applicable, structuring characteristics.

The information on the database shall be updated regularly. If this information is available to authorised dealers, the updates shall include in particular all modifications to individual vehicles after their production.

6.2. Access to vehicle security features used by authorised dealers and repair shops shall be made available to independent operators under protection of security technology in accordance with the following requirements:

6.2.1. data shall be exchanged ensuring confidentiality, integrity and protection against replay;

6.2.2. the standard https//ssl-tls (RFC4346) shall be used;

6.2.3. security certificates in accordance with ISO 20828 shall be used for mutual authentication of independent operators and manufacturers;

6.2.4. the independent operator's private key shall be protected by secure hardware.

6.3. The Forum on Access to Vehicle Information referred to in Article 70 shall specify the parameters for fulfilling these requirements in accordance with the state of the art. The independent operator shall be approved and authorised for this purpose on the basis of documents demonstrating that he pursues a legitimate business activity and has not been convicted of any criminal activity.

6.4. With regard to vehicles falling in the scope of Regulation (EC) No 595/2009, reprogramming of control units shall be conducted in accordance with either ISO 22900-2 or SAE J2534 or TMC RP1210B using non-proprietary hardware. Ethernet, serial cable or local area network (LAN) interface and alternative media like compact disc (CD), digital versatile disc (DVD) or solid state memory device for infotainment systems (e.g. navigation systems, telephone) may also be used, but on the condition that no proprietary communication software (e.g. drivers or plug-ins) or hardware is required. For the validation of the compatibility of the manufacturer-specific application and the vehicle communication interfaces (VCI) complying to ISO 22900-2 or SAE J2534 or TMC RP1210B, the manufacturer shall offer either a validation of independently developed VCIs or the information, and loan of any special hardware, required for a VCI manufacturer to conduct such validation himself. The conditions of Article 67(1) shall apply to fees for such validation or information and hardware.

6.5. The requirements of point 6.4. shall not apply in the case of reprogramming of speed limitation devices and recording equipment.

6.6. All emission-related DTCs shall be consistent with Annex XI to Commission Regulation (EC) No 692/2008[33] and Annex X to Commission Regulation (EU) No 582/2011/EC[34].

6.7. For access to any vehicle OBD and vehicle repair and maintenance information other than that relating to secure areas of the vehicle, registration requirements for use of the manufacturer's website by an independent operator shall require only such information as is necessary to confirm how payment for the information is to be made. For information concerning access to secure areas of the vehicle, the independent operator shall present a certificate in accordance with ISO 20828 to identify himself and the organisation to which he belongs and the manufacturer shall respond with his own certificate in accordance with ISO 20828 to confirm to the independent operator that he is accessing a legitimate site of the intended manufacturer. Both parties shall keep a log of any such transactions indicating the vehicles and changes made to them under this provision.

6.8. Manufacturers shall indicate in their repair information websites the type-approval number by model.

7. Requirements for type-approval

7.1. In order to receive a type-approval, the manufacturer shall submit the filled in certificate, the template of which is provided in Appendix I.

7.2. Where the vehicle OBD and vehicle repair and maintenance information is not available, or does not conform to the requirements of this Annex, the manufacturer shall provide that information within six months of the date of the type-approval.

7.3. The obligation to provide information within the dates referred to in point 7.2. shall apply only if, following the type-approval, the vehicle is placed on the market.

Where the vehicle is placed on the market more than six months after the type-approval has been granted the information shall be provided on the date on which the vehicle is placed on the market.

7.4. On the basis of a completed Certificate on Access to Vehicle OBD and Vehicle Repair and Maintenance Information, the approval authority may presume that the manufacturer has put in place satisfactory arrangements and procedures with regard to access to vehicle OBD and vehicle repair and maintenance information, provided that no complaint has been made and that the manufacturer provides that certificate within the periods referred to in point 7.2.

If that certificate of compliance is not provided within that period, the approval authority shall take appropriate measures to ensure compliance.

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[33] Commission Regulation (EC) No 692/2008 of 18 July 2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 199, 28.7.2008, p. 1).

[34] Commission Regulation (EU) No 582/2011 of 25 May 2011 implementing and amending Regulation (EC) No 595/2009 of the European Parliament and of the Council with respect to emissions from heavy duty vehicles (Euro VI) and amending Annexes I and III to Directive 2007/46/EC of the European Parliament and of the Council (OJ L 167, 25.6.2011, p. 1).

Appendix 1

Manufacturer's certificate on access to vehicle OBD and vehicle repair and maintenance information

(Manufacturer): …

(Address of the manufacturer): …

Certifies that

it provides access to vehicle OBD and vehicle repair and maintenance information in compliance with the provisions of:

Article 65 of Regulation (EU) No [……] and Annex XVIII to that Regulation

with respect to the types of vehicle, system, component or separate technical unit listed in attachment to this Certificate.

The following derogations are applied: Customer adaptations ([13]) — Small volume ([13]) —.

The principal website address through which the relevant information may be accessed and which is hereby certified to be in compliance with those provisions are listed in an attachment to this Certificate along with the contact details of the responsible manufacturer's representative who has signed this Certificate.

Where applicable: The manufacturer hereby also certifies that he has complied with the obligation of Article 66 of Regulation (EU) No …/201.. to provide the relevant information concerning previous approvals of these types of vehicle no later than six months after the date of type-approval.

Done at …[Place]

On …[Date]

[Signature] [Position]

Annexes:

— Annex A: Website addresses,

— Annex B: Contact details.

ANNEX A

Website addresses referred to in this Certificate:

ANNEX B

Contact details of the manufacturer's representative referred to in this Certificate:

Appendix 2

Vehicle OBD information

1. The vehicle manufacturer shall provide the information required in this appendix for the purposes of enabling the manufacture of OBD-compatible replacement or service parts and diagnostic tools and test equipment.

2. Upon request, the following information shall be made available, on a non-discriminatory basis, to any interested manufacturer of components, diagnostic tools or test equipment:

   2.1. a description of the type and number of the preconditioning cycles used for the original type-approval of the vehicle;

   2.2. a description of the type of the OBD demonstration cycle used for the original type-approval of the vehicle for the component monitored by the OBD system;

   2.3. a comprehensive document describing all sensed components with the strategy for fault detection and MI activation (fixed number of driving cycles or statistical method), including a list of relevant secondary sensed parameters for each component monitored by the OBD system and a list of all OBD output codes and format used (with an explanation of each code and format) associated with individual emission-related power-train components and individual non-emission related components, where monitoring of the component is used to determine MI activation. In particular, in the case of types of vehicles that use a communication link in accordance with ISO 15765-4 'Road vehicles — Diagnostics on controller area network (CAN) — Part 4: Requirements for emissions-related systems', a comprehensive explanation for the data given in service $ 05 Test ID $ 21 to FF and the data given in service $ 06, and a comprehensive explanation for the data given in service $ 06 Test ID $ 00 to FF, for each OBD monitor ID supported, shall be provided.

   In case other communication protocols standards are used, equivalent comprehensive explanation shall be provided.

   This information may be provided in the form of a table, with the following column and row headings:

   Component Fault code; Monitoring strategy; Fault detection criteria; MI activation criteria; Secondary parameters; Preconditioning Demonstration test.

   Catalyst P0420 Oxygen sensor; 1 and 2 signals; Difference between sensor 1 and sensor 2 signals; 3rd cycle Engine speed; engine load; A/F mode; catalyst temperature; Two Type 1 cycles Type 1.

3. Information required for the manufacturing of diagnostic tools

   In order to facilitate the provision of generic diagnostic tools for multi-make repairers, vehicle manufacturers shall make available the information referred to in points 3.1, 3.2 and 3.3 through their repair information websites. That information shall include all diagnostic tool functions and all the links to repair information and troubleshooting instructions. The access to the information may be subject to the payment of a reasonable fee.

   3.1. *Communication protocol information*

The following information shall be required indexed against vehicle make, model and variant, or another workable definition such as the VIN or the vehicle and systems identification:

3.1.1.any additional protocol information system necessary to enable complete diagnostics in addition to the standards prescribed in paragraph 4.7.3 of Annex 9B to UNECE Regulation No 49, including any additional hardware or software protocol information, parameter identification, transfer functions, 'keep alive' requirements, or error conditions;

3.1.2. details of how to obtain and interpret all the fault codes that do not comply with the standards prescribed in paragraph 4.7.3 of Annex 9B to UNECE Regulation No 49;

3.1.3. a list of all available live data parameters, including scaling and access information;

3.1.4. a list of all available functional tests, including device activation or control and the means to implement them;

3.1.5. details of how to obtain all component and status information, time stamps, pending DTC and freeze frames;

3.1.6. resetting adaptive learning parameters, variant coding and replacement component setup, and customer preferences;

3.1.7. Electronic control unit (ECU) identification and variant coding;

3.1.8. details of how to reset service lights;

3.1.9. location of diagnostic connector and connector details;

3.1.10. engine code identification.

3.2. *Test and diagnosis of OBD monitored components*

The following information shall be required:

3.2.1. a description of tests to confirm the functionality, at the component or in the harness;

3.2.2. information concerning the test procedure, including test parameters and component information;

3.2.3. connection details, including minimum and maximum input and output and driving and loading values;

3.2.4. values to be expected under certain driving conditions, including idling;

3.2.5. electrical values for the component in its static and dynamic states;

3.2.6. failure mode values for each of the scenarios;

3.2.7. failure mode diagnostic sequences, including fault trees and guided diagnostics elimination.

3.3. *Data required to perform the repair*

The following information shall be required:

3.3.1. ECU and component initialisation (in the event of replacements being fitted);

3.3.2. initialisation of new or replacement ECU's where relevant using pass-through (re-) programming techniques.

ANNEX XIX

CORRELATION TABLE

1. Regulation (EC) No 715/2007

Regulation (EC) No 715/2007	This Regulation
Article 1(2)	Article 94(1)(1)
Article 3, points (14) and (15)	Article 3, points (48) and (49)
Article 6	Article 65
Article 7	Article 67
Article 8	-
Article 9	-
Article 13(2)(e)	Article 92(2)(e)

2. Regulation (EC) No 595/2009

Regulation (EC) No 595/2009	This Regulation
Article 1, second paragraph	Article 95(1)(1)
Article 3, points (11) and (13)	Article 3, points (48) and (49)
Article 6	Article 65
Article 11(2), point (e)	Article 92(2)(e)

3. Regulation (EU) No 692/2008

Regulation (EU) No 692/2008	This Regulation
Annex XIV	Annex XVIII

4. Regulation (EU) No 582/2011

Regulation (EU) No 582/2011	This Regulation
Articles 2a to 2d	Annex XVIII
Article 2e	-
Article 2f	Article 67
Article 2g	Article 69
Article 2h	Article 70

Annex XVII	Annex XVIII

5. Directive 2007/46/EC

Directive 2007/46/EC	This Regulation
Article 1	Article 1(1)
-	Article 1(2)
-	Article 1(3)
Article 2	Article 2
Article 3	Article 3
Article 3, point (1)	-
Article 3, point (2)	-
Article 3, point (3)	Article 3, point (1)
Article 3, point (4)	Article 3, point (27)
Article 3, point (5)	Article 3, point (23)
Article 3, point (6)	Article 3, point (43)
Article 3, point (7)	Article 3, point (21)
Article 3, point (8)	Article 3, point (31)
Article 3, point (9)	Article 3, point (32)
Article 3, point (10)	Article 3, point (33)
Article 3, point (11)	Article 3, point (11)
Article 3, point (12)	Article 3, point (12)
Article 3, point (13)	Article 3, point (3)
Article 3, point (14)	-
Article 3, point (15)	-
Article 3, point (16)	Article 3, point (10)
Article 3, point (17)	Article 3, point (36)
Article 3, point (18)	Article 3, point (38)
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