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(Acts adopted under the EC Treaty/Euratom Treaty whose publication is obligatory)

REGULATIONS

COMMISSION REGULATION (EC) No 1060/2008

of 7 October 2008

replacing Annexes I, III, IV, VI, VII, XI and XV to Directive 2007/46/EC of the European Parliament and of the Council establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive)

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles ⁽¹⁾, and in particular Article 39(2) thereof,

Whereas:

- (1) Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers ⁽²⁾ was replaced by Directive 2007/46/EC in accordance with the Interinstitutional Agreement of 28 November 2001 on a more structured use of the recasting technique for legal acts ⁽³⁾.
- (2) Since the process of adoption of Directive 2007/46/EC was initiated, new Directives and Regulations have entered into force which have introduced amendments to the Annexes to Directive 70/156/EEC. Those amendments could not be reflected in Directive 2007/46/EC. This is the case with Directive 2004/3/EC of the European Parliament and of the Council of 11 February 2004 amending Council Directives 70/156/EEC and 80/1268/EEC as regards the measurement of carbon dioxide emissions and fuel consumption of N₁ vehicles ⁽⁴⁾, Directive 2004/11/EC of the European Parliament and of the Council of 11 February 2004 amending

Council Directives 92/24/EEC relating to speed limitation devices or similar speed limitation on-board systems of certain categories of motor vehicles ⁽⁵⁾, Directive 2005/55/EC of the European Parliament and of the Council of 28 September 2005 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles ⁽⁶⁾, Commission Directive 2005/78/EC of 14 November 2005 implementing Directive 2005/55/EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to the measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles and amending Annexes I, II, III, IV and VI thereto ⁽⁷⁾ Commission Directive 2004/104/EC of 14 October 2004 adapting to technical progress Council Directive 72/245/EEC relating to the radio interference (electromagnetic compatibility) of vehicles and amending Directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers ⁽⁸⁾, 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 ⁽⁹⁾, Directive 2005/66/EC of the European Parliament and of the Council of 26 October 2005 relating to the use of frontal protection systems on

⁽¹⁾ OJ L 263, 9.10.2007, p. 1.

⁽²⁾ OJ L 42, 23.2.1970, p. 1.

⁽³⁾ OJ C 77, 28.3.2002, p. 1.

⁽⁴⁾ OJ L 49, 19.2.2004, p. 36.

⁽⁵⁾ OJ L 44, 14.2.2004, p. 19.

⁽⁶⁾ OJ L 275, 20.10.2005, p. 1.

⁽⁷⁾ OJ L 313, 29.11.2005, p. 1.

⁽⁸⁾ OJ L 337, 13.11.2004, p. 13.

⁽⁹⁾ OJ L 310, 25.11.2005, p. 10.

motor vehicles and amending Council Directive 70/156/EEC⁽¹⁰⁾, Commission Directive 2006/28/EC of 6 March 2006 amending, for the purposes of their adaptation to technical progress, Council Directive 72/245/EEC of 20 June 1972 relating to the radio interference (electromagnetic compatibility) of vehicles and amending Directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers⁽¹¹⁾, 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⁽¹²⁾ and its implementing act, Commission Directive 2007/37/EC of 21 June 2007 amending Annexes I and III to Council Directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers⁽¹³⁾, Commission Regulation (EC) No 706/2007 of 21 June 2007 laying down, pursuant to Directive 2006/40/EC of the European Parliament and of the Council, administrative provisions for the EC type-approval of vehicles, and a harmonised test for measuring leakages from certain air-conditioning systems⁽¹⁴⁾, Commission Directive 2007/34/EC of 14 June 2007 amending, for the purposes of its adaptation to technical progress, Council Directive 70/157/EEC concerning the permissible sound level and the exhaust system of motor vehicles⁽¹⁵⁾, 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⁽¹⁶⁾.

- (3) Since the process of adoption of Directive 2007/46/EC was initiated, the European Community has acceded to Regulations of the Economic Commission for Europe of the United Nations in Geneva (UNECE): Regulation No 112 (Headlamps), Regulation No 123 (Adaptative front-lighting systems), Regulation No 125 (Front forward field of vision), Regulation No 121 (Identification of controls, tell-tales and indicators), Regulation No 122 (Heating systems), Regulation No 102 (Close-coupling device), Regulation No 107 (Buses and coaches), Regulation No 105 (Vehicles for the transport of dangerous goods). In addition, a new series of amendments to Regulation No 83 (Emissions), Regulation No 34 (Fuel tanks), Regulation No 11 (Door latches and hinges), Regulation No 13 (Braking), Regulation No 18 (Anti-theft), Regulation No 97 (Vehicle alarm systems) Regulation No 17 (Seat strength and combined head restraints) Regulation No 26 (Exterior projection), Regulation No 14 (Seatbelt anchorages), Regulation No 48 (Installation of lighting and light signalling devices), Regulations No 1, No 8 and No 20 (Headlamps), Regulation No 44 (Child restraints), Regulation No 49 (Emissions heavy-duty vehicles), Regulation No 64

(Temporary-use spare wheels/tyres) to which the Community has already acceded entered into force. In accordance with Article 4(4) of 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)⁽¹⁷⁾, the Community has decided that those UNECE Regulations are part of Community law. It is therefore necessary to modify Part II of Annex IV in order to include them in the list of equivalence as provided for in Article 35(2).

- (4) Furthermore, the development of scientific and technical knowledge allows for the application of Directive 2005/55/EC, Directive 2005/64/EC, Directive 2005/66/EC, Directive 2006/40/EC and Regulation (EC) No 715/2007 to vehicles belonging to category M₁ produced in small series and to special purpose vehicles. Similarly, it allows for the application of Directive 2003/97/EC to special purpose vehicles. It is therefore necessary to modify the appendix to Part I of Annex IV and Appendix 1, 2, 3, 4 and 5 to Annex XI.
- (5) It is therefore appropriate in view of ensuring the proper operation of the Community type-approval process to update the Annexes to Directive 2007/46/EC in order to adapt them to the development of scientific and technical knowledge.
- (6) The Annexes I, III, IV, VI, VII, XI and XV to Directive 2007/46/EC should be replaced accordingly.
- (7) The measures provided for in this Regulation are in accordance with the opinion of the Technical Committee — Motor Vehicles,

HAS ADOPTED THIS REGULATION:

Article 1

Directive 2007/46/EC is amended as follows:

1. Annex I is replaced by Annex I to this Regulation.
2. Annex III is replaced by Annex II to this Regulation.
3. Annex IV is replaced by Annex III to this Regulation.
4. Annex VI is replaced by Annex IV to this Regulation.
5. Annex VII is replaced by Annex V to this Regulation.

⁽¹⁷⁾ OJ L 346, 17.12.1997, p. 78.

⁽¹⁰⁾ OJ L 309, 25.11.2005, p. 37.

⁽¹¹⁾ OJ L 65, 7.3.2006, p. 27.

⁽¹²⁾ OJ L 161, 14.6.2006, p. 12.

⁽¹³⁾ OJ L 161, 22.6.2007, p. 60.

⁽¹⁴⁾ OJ L 161, 22.6.2007, p. 33.

⁽¹⁵⁾ OJ L 155, 15.6.2007, p. 49.

⁽¹⁶⁾ OJ L 171, 29.6.2007, p. 1.

6. Annex XI is replaced by Annex VI to this Regulation.

Article 2

7. Annex XV is replaced by Annex VII to this Regulation.

This Regulation shall enter into force on the 29 April 2009.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 7 October 2008.

For the Commission

Günter VERHEUGEN

Vice-President

ANNEX I

'ANNEX I

COMPLETE LIST OF INFORMATION FOR THE PURPOSE OF EC TYPE-APPROVAL OF VEHICLES ^(a)

All information documents in this directive and in separate directives or regulations shall consist only of extracts from, and adhere to the item numbering system of, this total 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.

- 0. GENERAL
- 0.1. Make (trade name of manufacturer):
- 0.2. Type:
- 0.2.0.1. Chassis:
- 0.2.0.2. Bodywork/complete vehicle:
- 0.2.1. Commercial name(s) (if available):
- 0.3. Means of identification of type, if marked on the vehicle ^(b):
- 0.3.0.1. Chassis:
- 0.3.0.2. Bodywork/complete vehicle:
- 0.3.1. Location of that marking:
- 0.3.1.1. Chassis:
- 0.3.1.2. Bodywork/complete vehicle:
- 0.4. Category of vehicle ^(c):
- 0.4.1. Classification(s) according to the dangerous goods which the vehicle is intended to transport:
- 0.5. Name and address of manufacturer:
- 0.6. Location and method of attachment of statutory plates and location of vehicle identification number:
 - 0.6.1. On the chassis:
 - 0.6.2. On the bodywork:
- 0.7. (Not attributed)
- 0.8. Name(s) and address(es) of assembly plant(s):
- 0.9. Name and address of the manufacturer's representative (if any):
- 1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE
- 1.1. Photographs and/or drawings of a representative vehicle:
- 1.2. Dimensional drawing of the whole vehicle:

- 1.3. Number of axles and wheels:
- 1.3.1. Number and position of axles with twin wheels:
- 1.3.2. Number and position of steered axles:
- 1.3.3. Powered axles (number, position, interconnection):
- 1.4. Chassis (if any) (overall drawing):
- 1.5. Material used for the side-members ^(d):
- 1.6. Position and arrangement of the engine:
- 1.7. Driving cab (forward control or bonneted) ^(e):
- 1.8. Hand of drive: left/right ⁽¹⁾.
- 1.8.1. Vehicle is equipped to be driven in right/left ⁽¹⁾ hand traffic.
- 1.9. Specify if the motor vehicle is intended to tow semi-trailers or other trailers and, if the trailer is a semi-, drawbar or centre-axle trailer, specify vehicles specially designed for the controlled-temperature carriage of goods:
2. MASSES AND DIMENSIONS ^(f) ^(g)
(in kg and mm) (Refer to drawing where applicable)
- 2.1. **Wheelbase(s) (fully loaded)** ^(g1):
- 2.1.1. Two-axle vehicles:
- 2.1.1.1. Vehicles with three or more axles
- 2.1.1.1.1. Axle spacing between consecutive axles going from the foremost to the rearmost axle:
- 2.1.1.1.2. Total axle spacing:
- 2.2. **Fifth wheel**
- 2.2.1. In the case of semi-trailers
- 2.2.1.1. Distance between the axis of the fifth wheel kingpin and the rearmost end of the semi-trailer:
- 2.2.1.2. Maximum distance between the axis of the fifth wheel kingpin and any point on the front of the semi-trailer:
- 2.2.1.3. Semi-trailer special wheelbase (as defined in Section 7.6.1.2 of Annex I to Directive 97/27/EC):
- 2.2.2. In the case of semi-trailer towing vehicles
- 2.2.2.1. Fifth wheel lead (maximum and minimum; indicate the permissible values in the case of an incomplete vehicle) ^(g2):
- 2.2.2.2. Maximum height of the fifth wheel (standardised) ^(g3):
- 2.3. **Axle track(s) and width(s)**
- 2.3.1. Track of each steered axle ^(g4):
- 2.3.2. Track of all other axles ^(g4):
- 2.3.3. Width of the widest rear axle:
- 2.3.4. Width of the foremost axle (measured at the outermost part of the tyres excluding the bulging of the tyres close to the ground):

2.4.	Range of vehicle dimensions (overall)
2.4.1.	For chassis without bodywork
2.4.1.1.	Length ^(g5) :
2.4.1.1.1.	Maximum permissible length:
2.4.1.1.2.	Minimum permissible length:
2.4.1.1.3.	In the case of trailers, maximum permissible drawbar length ^(g6) :
2.4.1.2.	Width ^(g7) :
2.4.1.2.1.	Maximum permissible width:
2.4.1.2.2.	Minimum permissible width:
2.4.1.3.	Height (in running order) ^(g8) (for suspensions adjustable for height, indicate normal running position):
2.4.1.4.	Front overhang ^(g9) :
2.4.1.4.1.	Approach angle ^(g10) : degrees.
2.4.1.5.	Rear overhang ^(g11) :
2.4.1.5.1.	Departure angle ^(g12) : degrees.
2.4.1.5.2.	Minimum and maximum permissible overhang of the coupling point ^(g13) :
2.4.1.6.	Ground clearance (as defined in point 4.5 of Section A of Annex II)
2.4.1.6.1.	Between the axles:
2.4.1.6.2.	Under the front axle(s):
2.4.1.6.3.	Under the rear axle(s):
2.4.1.7.	Ramp angle ^(g14) : degrees.
2.4.1.8.	Extreme permissible positions of the centre of gravity of the body and/or interior fittings and/or equipment and/or payload:
2.4.2.	For chassis with bodywork
2.4.2.1.	Length ^(g5) :
2.4.2.1.1.	Length of the loading area:
2.4.2.1.2.	In the case of trailers, maximum permissible drawbar length ^(g6) :
2.4.2.2.	Width ^(g7) :
2.4.2.2.1.	Thickness of the walls (in the case of vehicles designed for controlled-temperature carriage of goods):
2.4.2.3.	Height (in running order) ^(g8) (for suspensions adjustable for height, indicate normal running position):
2.4.2.4.	Front overhang ^(g9) :
2.4.2.4.1.	Approach angle ^(g10) : degrees.
2.4.2.5.	Rear overhang ^(g11) :
2.4.2.5.1.	Departure angle ^(g12) : degrees.
2.4.2.5.2.	Minimum and maximum permissible overhang of the coupling point ^(g13) :

2.4.2.6.	Ground clearance (as defined in point 4.5 of Section A of Annex II)
2.4.2.6.1.	Between the axles:
2.4.2.6.2.	Under the front axle(s):
2.4.2.6.3.	Under the rear axle(s):
2.4.2.7.	Ramp angle ^(g4) : degrees.
2.4.2.8.	Extreme permissible positions of the centre of gravity of the payload (in the case of non-uniform load):
2.4.2.9.	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:
2.4.3.	For bodywork approved without chassis (vehicles M ₂ and M ₃)
2.4.3.1.	Length ^(g5) :
2.4.3.2.	Width ^(g7) :
2.4.3.3.	Nominal height (in running order) ^(g8) on intended chassis type(s) (for suspensions adjustable for height, indicate normal running position):
2.5.	Mass of the bare chassis (without cab, coolant, oils, fuel, spare wheel, tools and driver):
2.5.1.	Distribution of this mass among the axles:
2.6.	Mass in running order
	Mass of the vehicle with bodywork and, in the case of a towing vehicle of category other than M ₁ , with coupling device, if fitted by the manufacturer, in running order, or mass of the chassis or 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, and driver and, for buses and coaches, a crew member if there is a crew seat in the vehicle) ^(h) (maximum and minimum for each variant): ...
2.6.1.	Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point (maximum and minimum for each variant):
2.7.	Minimum mass of the completed vehicle as stated by the manufacturer, in the case of an incomplete vehicle:
2.7.1.	Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point:
2.8.	Technically permissible maximum laden mass stated by the manufacturer ⁽ⁱ⁾ ⁽³⁾ :
2.8.1.	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⁾ :
2.9.	Technically permissible maximum mass on each axle:
2.10.	Technically permissible maximum mass on each axle group:
2.11.	Technically permissible maximum towable mass of the motor vehicle in case of
2.11.1.	Drawbar trailer:
2.11.2.	Semi-trailer:
2.11.3.	Centre-axle trailer:
2.11.3.1.	Maximum ratio of the coupling overhang ^(l) to the wheel base:
2.11.3.2.	Maximum V-value: kN.
2.11.4.	Technically permissible maximum mass of the combination ⁽³⁾ :
2.11.5.	Vehicle is/is not ^(l) suitable for towing loads (item 1.2 of Annex II to Directive 77/389/EEC).

- 2.11.6. Maximum mass of unbraked trailer:
- 2.12. **Technically permissible maximum static vertical load/mass on the vehicle's coupling point**
- 2.12.1. Of the motor vehicle:
- 2.12.2. Of the semi-trailer or centre-axle trailer:
- 2.12.3. Maximum permissible mass of the coupling device (if not fitted by the manufacturer):
- 2.13. **Rear swing-out** (Section 7.6.2. and 7.6.3. of Annex I to Directive 97/27/EC):
- 2.14. **Engine power/maximum mass ratio:** kW/kg.
- 2.14.1. Engine power/technically permissible maximum laden mass of the combination ratio (Section 7.10 of Annex I to Directive 97/27/EC):kW/kg.
- 2.15. **Hill-starting ability** (solo vehicle) ⁽⁴⁾: %.
- 2.16. **Intended registration/in service maximum permissible masses** (optional: where these values are given, they shall be verified in accordance with the requirements of Annex IV to Directive 97/27/EC)
- 2.16.1. Intended registration/in service maximum permissible laden mass (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.2. Intended 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 (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.3. Intended registration/in service maximum permissible mass on each axle group (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.4. Intended registration/in service maximum permissible towable mass (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.5. Intended registration/in service maximum permissible mass of the combination (several entries possible for each technical configuration ⁽⁵⁾):
3. POWER PLANT ⁽⁶⁾
- 3.1. **Manufacturer of the engine:**
- 3.1.1. Manufacturer's engine code (as marked on the engine or other means of identification):
- 3.1.2. Approval number (if appropriate) including fuel identification marking:
- (heavy-duty vehicles only)
- 3.2. **Internal combustion engine**
- 3.2.1. *Specific engine information*
- 3.2.1.1. Working principle: positive ignition/compression ignition ⁽¹⁾
- Cycle: four stroke/two stroke/rotary ⁽¹⁾
- 3.2.1.2. Number and arrangement of cylinders:
- 3.2.1.2.1. Bore ⁽¹⁾: mm
- 3.2.1.2.2. Stroke ⁽¹⁾: mm
- 3.2.1.2.3. Firing order:
- 3.2.1.3. Engine capacity ^(m): cm³

- 3.2.1.4. Volumetric compression ratio (2):
- 3.2.1.5. Drawings of combustion chamber, piston crown and, in the case of positive ignition engines, piston rings:
- 3.2.1.6. Normal engine idling speed (2): min⁻¹
- 3.2.1.6.1. High engine idling speed (2): min⁻¹
- 3.2.1.7. Carbon monoxide content by volume in the exhaust gas with the engine idling (2): % as stated by the manufacturer (positive ignition engines only)
- 3.2.1.8. Maximum net power (2): kW at min⁻¹ (manufacturer's declared value)
- 3.2.1.9. Maximum permitted engine speed as prescribed by the manufacturer: min⁻¹
- 3.2.1.10. Maximum net torque (2): Nm at min⁻¹ (manufacturer's declared value)
- 3.2.2. *Fuel*
- 3.2.2.1. Light-duty vehicles: Diesel/Petrol/LPG/NG or Biomethane/Ethanol (E 85)/Biodiesel/Hydrogen (1) (6)
- 3.2.2.2. Heavy-duty vehicles: Diesel/Petrol/LPG/NG-H/NG-L/NG-HL/Ethanol (1) (6)
- 3.2.2.3. Fuel tank inlet: restricted orifice/label (1)
- 3.2.2.4. Vehicle fuel type: Mono fuel, Bi fuel, Flex fuel (1)
- 3.2.2.5. Maximum amount of biofuel acceptable in fuel (manufacturer's declared value): % by volume
- 3.2.3. *Fuel tank(s)*
- 3.2.3.1. Service fuel tank(s)
- 3.2.3.1.1. Number and capacity of each tank:
- 3.2.3.1.1.1. Material:
- 3.2.3.1.2. Drawing and technical description of the tank(s) with all connections and all lines of the breathing and venting system, locks, valves, fastening devices:
- 3.2.3.1.3. Drawing clearly showing the position of the tank(s) in the vehicle:
- 3.2.3.2. Reserve fuel tank(s)
- 3.2.3.2.1. Number and capacity of each tank:
- 3.2.3.2.1.1. Material:
- 3.2.3.2.2. Drawing and technical description of the tank(s) with all connections and all lines of the breathing and venting system, locks, valves, fastening devices:
- 3.2.3.2.3. Drawing clearly showing the position of the tank(s) in the vehicle:
- 3.2.4. *Fuel feed*
- 3.2.4.1. By carburettor(s): yes/no (1)
- 3.2.4.2. By fuel injection (compression ignition only): yes/no (1)
- 3.2.4.2.1. System description:
- 3.2.4.2.2. Working principle: direct injection/pre-chamber/swirl chamber (1)

- 3.2.4.2.3. Injection pump
- 3.2.4.2.3.1. Make(s):
- 3.2.4.2.3.2. Type(s):
- 3.2.4.2.3.3. Maximum fuel delivery ⁽¹⁾ ⁽²⁾: mm³/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)
- 3.2.4.2.3.4. Static injection timing ⁽²⁾:
- 3.2.4.2.3.5. Injection advance curve ⁽²⁾:
- 3.2.4.2.3.6. Calibration procedure: test bench/engine ⁽¹⁾
- 3.2.4.2.4. Governor
- 3.2.4.2.4.1. Type:
- 3.2.4.2.4.2. Cut-off point
- 3.2.4.2.4.2.1. Speed at which cut-off starts under load: min⁻¹
- 3.2.4.2.4.2.2. Maximum no-load speed: min⁻¹
- 3.2.4.2.4.2.3. Idling speed: min⁻¹
- 3.2.4.2.5. Injection piping (heavy-duty vehicles only)
- 3.2.4.2.5.1. Length: mm
- 3.2.4.2.5.2. Internal diameter: mm
- 3.2.4.2.5.3. Common rail, make and type:
- 3.2.4.2.6. Injector(s)
- 3.2.4.2.6.1. Make(s):
- 3.2.4.2.6.2. Type(s):
- 3.2.4.2.6.3. Opening pressure ⁽²⁾: kPa or characteristic diagram ⁽²⁾:
- 3.2.4.2.7. Cold start system
- 3.2.4.2.7.1. Make(s):
- 3.2.4.2.7.2. Type(s):
- 3.2.4.2.7.3. Description:
- 3.2.4.2.8. Auxiliary starting aid
- 3.2.4.2.8.1. Make(s):
- 3.2.4.2.8.2. Type(s):
- 3.2.4.2.8.3. System description:
- 3.2.4.2.9. Electronic controlled injection: yes/no ⁽¹⁾
- 3.2.4.2.9.1. Make(s):
- 3.2.4.2.9.2. Type(s):
- 3.2.4.2.9.3. Description of the system (in the case of systems other than continuous injection give equivalent details):
- 3.2.4.2.9.3.1. Make and type of the control unit (ECU):

3.2.4.2.9.3.2.	Make and type of the fuel regulator:
3.2.4.2.9.3.3.	Make and type of the air-flow sensor:
3.2.4.2.9.3.4.	Make and type of fuel distributor:
3.2.4.2.9.3.5.	Make and type of the throttle housing:
3.2.4.2.9.3.6.	Make and type of water temperature sensor:
3.2.4.2.9.3.7.	Make and type of air temperature sensor:
3.2.4.2.9.3.8.	Make and type of air pressure sensor:
3.2.4.2.9.3.9.	Software calibration number(s):
3.2.4.3.	By fuel injection (positive ignition only): yes/no ⁽¹⁾
3.2.4.3.1.	Working principle: intake manifold (single-/multi-point/direct injection ⁽¹⁾ /other (specify):
3.2.4.3.2.	Make(s):
3.2.4.3.3.	Type(s):
3.2.4.3.4.	System description (In the case of systems other than continuous injection give equivalent details): ..
3.2.4.3.4.1.	Make and type of the control unit (ECU):
3.2.4.3.4.2.	Make and type of fuel regulator:
3.2.4.3.4.3.	Make and type of air-flow sensor:
3.2.4.3.4.4.	Make and type of fuel distributor:
3.2.4.3.4.5.	Make and type of pressure regulator:
3.2.4.3.4.6.	Make and type of micro switch:
3.2.4.3.4.7.	Make and type of idling adjustment screw:
3.2.4.3.4.8.	Make and type of throttle housing:
3.2.4.3.4.9.	Make and type of water temperature sensor:
3.2.4.3.4.10.	Make and type of air temperature sensor:
3.2.4.3.4.11.	Make and type of air pressure sensor:
3.2.4.3.4.12.	Software calibration number(s):
3.2.4.3.5.	Injectors: opening pressure ⁽²⁾ : kPa or characteristic diagram:
3.2.4.3.5.1.	Make:
3.2.4.3.5.2.	Type:
3.2.4.3.6.	Injection timing:
3.2.4.3.7.	Cold start system
3.2.4.3.7.1.	Operating principle(s):
3.2.4.3.7.2.	Operating limits/settings ⁽¹⁾ ⁽²⁾ :
3.2.4.4.	Feed pump
3.2.4.4.1.	Pressure ⁽²⁾ : kPa or characteristic diagram ⁽²⁾ :

- 3.2.5. *Electrical system*
- 3.2.5.1. Rated voltage: V, positive/negative ground ⁽¹⁾
- 3.2.5.2. Generator
- 3.2.5.2.1. Type:
- 3.2.5.2.2. Nominal output: VA
- 3.2.6. *Ignition system (spark ignition engines only)*
- 3.2.6.1. Make(s):
- 3.2.6.2. Type(s):
- 3.2.6.3. Working principle:
- 3.2.6.4. Ignition advance curve or map ⁽²⁾:
- 3.2.6.5. Static ignition timing ⁽²⁾: degrees before TDC
- 3.2.6.6. Spark plugs
- 3.2.6.6.1. Make:
- 3.2.6.6.2. Type:
- 3.2.6.6.3. Gap setting:mm
- 3.2.6.7. Ignition coil(s)
- 3.2.6.7.1. Make:
- 3.2.6.7.2. Type:
- 3.2.7. *Cooling system: liquid/air ⁽¹⁾*
- 3.2.7.1. Nominal setting of the engine temperature control mechanism:
- 3.2.7.2. Liquid
- 3.2.7.2.1. Nature of liquid:
- 3.2.7.2.2. Circulating pump(s): yes/no ⁽¹⁾
- 3.2.7.2.3. Characteristics:or
- 3.2.7.2.3.1. Make(s):
- 3.2.7.2.3.2. Type(s):
- 3.2.7.2.4. Drive ratio(s):
- 3.2.7.2.5. Description of the fan and its drive mechanism:
- 3.2.7.3. Air
- 3.2.7.3.1. Fan: yes/no ⁽¹⁾
- 3.2.7.3.2. Characteristics:or
- 3.2.7.3.2.1. Make(s):
- 3.2.7.3.2.2. Type(s):
- 3.2.7.3.3. Drive ratio(s):

- 3.2.8. *Intake system*
- 3.2.8.1. Pressure charger: yes/no ⁽¹⁾
- 3.2.8.1.1. Make(s):
- 3.2.8.1.2. Type(s):
- 3.2.8.1.3. Description of the system (e.g. maximum charge pressure: kPa; wastegate if applicable): ...
- 3.2.8.2. Intercooler: yes/no ⁽¹⁾
- 3.2.8.2.1. Type: air-air/air-water ⁽¹⁾
- 3.2.8.3. Intake depression at rated engine speed and at 100 % load (compression ignition engines only)
- 3.2.8.3.1. Minimum allowable: kPa
- 3.2.8.3.2. Maximum allowable: kPa
- 3.2.8.4. Description and drawings of inlet pipes and their accessories (plenum chamber, heating device, additional air intakes, etc.):
- 3.2.8.4.1. Intake manifold description (include drawings and/or photos):
- 3.2.8.4.2. Air filter, drawings: or
- 3.2.8.4.2.1. Make(s):
- 3.2.8.4.2.2. Type(s):
- 3.2.8.4.3. Intake silencer, drawings: or
- 3.2.8.4.3.1. Make(s):
- 3.2.8.4.3.2. Type(s):
- 3.2.9. *Exhaust system*
- 3.2.9.1. Description and/or drawing of the exhaust manifold:
- 3.2.9.2. Description and/or drawing of the exhaust system:
- 3.2.9.3. Maximum allowable exhaust back pressure at rated engine speed and at 100 % load (compression ignition engines only): kPa
- 3.2.9.4. Type, marking of exhaust silencer(s):
- Where relevant for exterior noise, reducing measures in the engine compartment and on the engine:
- 3.2.9.5. Location of the exhaust outlet:
- 3.2.9.6. Exhaust silencer containing fibrous materials:
- 3.2.9.7. Exhaust system volume: dm³
- 3.2.10. *Minimum cross-sectional areas of inlet and outlet ports:*
- 3.2.11. *Valve timing or equivalent data*
- 3.2.11.1. 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: ...
- 3.2.11.2. Reference and/or setting ranges ⁽¹⁾:

- 3.2.12. *Measures taken against air pollution*
- 3.2.12.1. Device for recycling crankcase gases (description and drawings):
- 3.2.12.2. Additional pollution control devices (if any, and if not covered by another heading)
- 3.2.12.2.1. Catalytic converter: yes/no ⁽¹⁾
- 3.2.12.2.1.1. Number of catalytic converters and elements (provide the information below for each separate unit):
- 3.2.12.2.1.2. Dimensions, shape and volume of the catalytic converter(s):
- 3.2.12.2.1.3. Type of catalytic action:
- 3.2.12.2.1.4. Total charge of precious metals:
- 3.2.12.2.1.5. Relative concentration:
- 3.2.12.2.1.6. Substrate (structure and material):
- 3.2.12.2.1.7. Cell density:
- 3.2.12.2.1.8. Type of casing for the catalytic converter(s):
- 3.2.12.2.1.9. Location of the catalytic converter(s) (place and reference distance in the exhaust line):
- 3.2.12.2.1.10. Heat shield: yes/no ⁽¹⁾
- 3.2.12.2.1.11. Regeneration systems/method of exhaust after-treatment systems, description:
- 3.2.12.2.1.11.1. 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):
- 3.2.12.2.1.11.2. Description of method employed to determine the number of cycles between two cycles where regenerative phases occur:
- 3.2.12.2.1.11.3. Parameters to determine the level of loading required before regeneration occurs (i.e. temperature, pressure etc.):
- 3.2.12.2.1.11.4. Description of method used to load system in the test procedure described in paragraph 3.1 of Annex 13 to UNECE Regulation No 83):
- 3.2.12.2.1.11.5. Normal operating temperature range: K
- 3.2.12.2.1.11.6. Consumable reagents: yes/no ⁽¹⁾
- 3.2.12.2.1.11.7. Type and concentration of reagent needed for catalytic action:
- 3.2.12.2.1.11.8. Normal operational temperature range of reagent: K
- 3.2.12.2.1.11.9. International standard:
- 3.2.12.2.1.11.10. Frequency of reagent refill: continuous/maintenance ⁽¹⁾
- 3.2.12.2.1.12. Make of catalytic converter:
- 3.2.12.2.1.13. Identifying part number:
- 3.2.12.2.2. Oxygen sensor: yes/no ⁽¹⁾
- 3.2.12.2.2.1. Make:
- 3.2.12.2.2.2. Location:
- 3.2.12.2.2.3. Control range:
- 3.2.12.2.2.4. Type:

3.2.12.2.2.5.	Identifying part number:
3.2.12.2.3.	Air injection: yes/no ⁽¹⁾
3.2.12.2.3.1.	Type (pulse air, air pump, etc.):
3.2.12.2.4.	Exhaust gas recirculation (EGR): yes/no ⁽¹⁾
3.2.12.2.4.1.	Characteristics (make, type, flow, etc.):
3.2.12.2.4.2.	Water-cooled system: yes/no ⁽¹⁾
3.2.12.2.5.	Evaporative emissions control system: yes/no ⁽¹⁾
3.2.12.2.5.1.	Detailed description of the devices and their state of tune:
3.2.12.2.5.2.	Drawing of the evaporative control system:
3.2.12.2.5.3.	Drawing of the carbon canister:
3.2.12.2.5.4.	Mass of dry charcoal: g
3.2.12.2.5.5.	Schematic drawing of the fuel tank with indication of capacity and material:
3.2.12.2.5.6.	Drawing of the heat shield between tank and exhaust system:
3.2.12.2.6.	Particulate trap (PT): yes/no ⁽¹⁾
3.2.12.2.6.1.	Dimensions, shape and capacity of the particulate trap:
3.2.12.2.6.2.	Design of the particulate trap:
3.2.12.2.6.3.	Location (reference distance in the exhaust line):
3.2.12.2.6.4.	Method or system of regeneration, description and/or drawing:
3.2.12.2.6.4.1.	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):
3.2.12.2.6.4.2.	Description of method employed to determine the number of cycles between two cycles where regenerative phases occur:
3.2.12.2.6.4.3.	Parameters to determine the level of loading required before regeneration occurs (i.e. temperature, pressure etc.):
3.2.12.2.6.4.4.	Description of method used to load system in the test procedure described in paragraph 3.1 of Annex 13 to UNECE Regulation No 83):
3.2.12.2.6.5.	Make of particulate trap:
3.2.12.2.6.6.	Identifying part number:
3.2.12.2.6.7.	Normal operating temperature: (K) and pressure range (KPa) (heavy-duty vehicles only)
3.2.12.2.6.8.	In the case of periodic regeneration (heavy-duty vehicles only)
3.2.12.2.6.8.1.	Number of ETC test cycles between 2 regenerations (n1):
3.2.12.2.6.8.2.	Number of ETC cycles during regeneration (n2):
3.2.12.2.7.	On-board-diagnostic (OBD) system: yes/no ⁽¹⁾ :
3.2.12.2.7.1.	Written description and/or drawing of the MI:
3.2.12.2.7.2.	List and purpose of all components monitored by the OBD system:

- 3.2.12.2.7.3. Written description (general working principles) for
- 3.2.12.2.7.3.1 Positive-ignition engines
- 3.2.12.2.7.3.1.1. Catalyst monitoring:
- 3.2.12.2.7.3.1.2. Misfire detection:
- 3.2.12.2.7.3.1.3. Oxygen sensor monitoring:
- 3.2.12.2.7.3.1.4. Other components monitored by the OBD system:
- 3.2.12.2.7.3.2. Compression-ignition engines:
- 3.2.12.2.7.3.2.1. Catalyst monitoring:
- 3.2.12.2.7.3.2.2. Particulate trap monitoring:
- 3.2.12.2.7.3.2.3. Electronic fuelling system monitoring:
- 3.2.12.2.7.3.2.4. deNO_x system monitoring:
- 3.2.12.2.7.3.2.5 Other components monitored by the OBD system:
- 3.2.12.2.7.4. Criteria for MI activation (fixed number of driving cycles or statistical method):
- 3.2.12.2.7.5. List of all OBD output codes and formats used (with explanation of each):
- 3.2.12.2.7.6. 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.
- 3.2.12.2.7.6.1. A description of the type and number of the preconditioning cycles used for the original type approval of the vehicle.
- 3.2.12.2.7.6.2. 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.
- 3.2.12.2.7.6.3. 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 vehicle types 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.
- 3.2.12.2.7.6.4. The information required above may be defined by completing a table as described below.
- 3.2.12.2.7.6.4.1. 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

3.2.12.2.7.6.4.2. 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)

3.2.12.2.8. Other system (description and operation):

3.2.12.2.9. Torque limiter: yes/no ⁽¹⁾

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

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

3.2.13. *Smoke opacity*

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

3.2.13.2. Power at six points of measurement (see point 2.1 of Annex III to Directive 72/306/EEC as amended)

3.2.13.3. Engine power measured on test bench/on the vehicle ⁽¹⁾

3.2.13.3.1. Declared speeds and powers

Measurement points	Engine speed (min ⁻¹)	Power (kW)
1.....		
2.....		
3.....		
4.....		
5.....		
6.....		

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

3.2.15. *LPG fuelling system: yes/no ⁽¹⁾*

3.2.15.1. Type-approval number according to Directive 70/221/EEC (when the Directive will be amended to cover tanks for gaseous fuels) or approval number according to UNECE Regulation No 67 (OJ L 76, 6.4.1970, p. 34):

3.2.15.2. Electronic engine management control unit for LPG fuelling

3.2.15.2.1. Make(s):

3.2.15.2.2. Type(s):

3.2.15.2.3. Emission-related adjustment possibilities:

3.2.15.3. Further documentation

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

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

- 3.2.15.3.3. Drawing of the symbol:
- 3.2.16. NG fuelling system: yes/no ⁽¹⁾
- 3.2.16.1. Type-approval number according to Directive 70/221/EEC (when the Directive will be amended to cover tanks for gaseous fuels) or approval number according to UNECE Regulation No 110 (OJ L 72, 14.3.2008, p. 113):
- 3.2.16.2. Electronic engine management control unit for NG fuelling
- 3.2.16.2.1. Make(s):
- 3.2.16.2.2. Type(s):
- 3.2.16.2.3. Emission-related adjustment possibilities:
- 3.2.16.3. Further documentation
- 3.2.16.3.1. Description of the safeguarding of the catalyst at switch-over from petrol to NG or back:
- 3.2.16.3.2. System lay-out (electrical connections, vacuum connections compensation hoses, etc.):
- 3.2.16.3.3. Drawing of the symbol:
- 3.2.17. *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)*
- 3.2.17.1. Fuel: LPG/NG-H/NG-L/NG-HL ⁽¹⁾
- 3.2.17.2. Pressure regulator(s) or vaporiser/pressure regulator(s) ⁽¹⁾
- 3.2.17.2.1. Make(s):
- 3.2.17.2.2. Type(s):
- 3.2.17.2.3. Number of pressure reduction stages:
- 3.2.17.2.4. Pressure in final stage
minimum: kPa — maximum: kPa
- 3.2.17.2.5. Number of main adjustment points:
- 3.2.17.2.6. Number of idle adjustment points:
- 3.2.17.2.7. Type-approval number:
- 3.2.17.3. Fuelling system: mixing unit/gas injection/liquid injection/direct injection ⁽¹⁾
- 3.2.17.3.1. Mixture strength regulation:
- 3.2.17.3.2. System description and/or diagram and drawings:
- 3.2.17.3.3. Type-approval number:
- 3.2.17.4. Mixing unit
- 3.2.17.4.1. Number:
- 3.2.17.4.2. Make(s):
- 3.2.17.4.3. Type(s):
- 3.2.17.4.4. Location:
- 3.2.17.4.5. Adjustment possibilities:
- 3.2.17.4.6. Type-approval number:

3.2.17.5.	Inlet manifold injection
3.2.17.5.1.	Injection: single point/multipoint ⁽¹⁾
3.2.17.5.2.	Injection: continuous/simultaneously timed/sequentially timed ⁽¹⁾
3.2.17.5.3.	Injection equipment
3.2.17.5.3.1.	Make(s):
3.2.17.5.3.2.	Type(s):
3.2.17.5.3.3.	Adjustment possibilities:
3.2.17.5.3.4.	Type-approval number:
3.2.17.5.4.	Supply pump (if applicable)
3.2.17.5.4.1.	Make(s):
3.2.17.5.4.2.	Type(s):
3.2.17.5.4.3.	Type-approval number:
3.2.17.5.5.	Injector(s)
3.2.17.5.5.1.	Make(s):
3.2.17.5.5.2.	Type(s):
3.2.17.5.5.3.	Type-approval number:
3.2.17.6.	Direct injection
3.2.17.6.1.	Injection pump/pressure regulator ⁽¹⁾
3.2.17.6.1.1.	Make(s):
3.2.17.6.1.2.	Type(s):
3.2.17.6.1.3.	Injection timing:
3.2.17.6.1.4.	Type-approval number:
3.2.17.6.2.	Injector(s)
3.2.17.6.2.1.	Make(s):
3.2.17.6.2.2.	Type(s):
3.2.17.6.2.3.	Opening pressure or characteristic diagram ⁽²⁾ :
3.2.17.6.2.4.	Type-approval number:
3.2.17.7.	Electronic control unit (ECU)
3.2.17.7.1.	Make(s):
3.2.17.7.2.	Type(s):
3.2.17.7.3.	Adjustment possibilities:
3.2.17.7.4.	Software calibration number(s):
3.2.17.8.	NG fuel-specific equipment
3.2.17.8.1.	Variant 1 (only in the case of approvals of engines for several specific fuel compositions)

3.2.17.8.1.1.	Fuel composition:			
	methane (CH ₄):	basis: % mole	min. % mole	max. % mole
	ethane (C ₂ H ₆):	basis: % mole	min. % mole	max. % mole
	propane (C ₃ H ₈):	basis: % mole	min. % mole	max. % mole
	butane (C ₄ H 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

3.2.17.8.1.2. Injector(s)

3.2.17.8.1.2.1. Make(s):

3.2.17.8.1.2.2. Type(s):

3.2.17.8.1.3. Others (if applicable):

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

3.3. **Electric motor**

3.3.1. Type (winding, excitation):

3.3.1.1. Maximum hourly output: kW

3.3.1.2. Operating voltage: V

3.3.2. Battery

3.3.2.1. Number of cells:

3.3.2.2. Mass: kg

3.3.2.3. Capacity: Ah (Amp-hours)

3.3.2.4. Position:

3.4. **Engine or motor combination**

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

3.4.2. Category of hybrid electric vehicle: off-vehicle charging/not off-vehicle charging: ⁽¹⁾

3.4.3. Operating mode switch: with/without ⁽¹⁾

3.4.3.1. Selectable modes

3.4.3.1.1. Pure electric: yes/no ⁽¹⁾

3.4.3.1.2. Pure fuel consuming: yes/no ⁽¹⁾

3.4.3.1.3. Hybrid modes: yes/no ⁽¹⁾

(if yes, short description):

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

3.4.4.1. Make(s):

3.4.4.2. Type(s):

3.4.4.3. Identification number:

3.4.4.4. Kind of electrochemical couple:

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

- 3.4.4.6. Charger: on board/external/without ⁽¹⁾
- 3.4.5. *Electric motor (describe each type of electric motor separately)*
- 3.4.5.1. Make:
- 3.4.5.2. Type:
- 3.4.5.3. Primary use: traction motor/generator ⁽¹⁾
- 3.4.5.3.1. When used as traction motor: single-/multimotors (number) ⁽¹⁾:
- 3.4.5.4. Maximum power: kW
- 3.4.5.5. Working principle
- 3.4.5.5.1. Direct current/alternating current/number of phases:
- 3.4.5.5.2. Separate excitation/series/compound ⁽¹⁾
- 3.4.5.5.3. Synchronous/asynchronous ⁽¹⁾
- 3.4.6. *Control unit*
- 3.4.6.1. Make(s):
- 3.4.6.2. Type(s):
- 3.4.6.3. Identification number:
- 3.4.7. *Power controller*
- 3.4.7.1. Make:
- 3.4.7.2. Type:
- 3.4.7.3. Identification number:
- 3.4.8. *Vehicle electric range* km according to Annex 7 of Regulation No 101):
- 3.4.9. *Manufacturer's recommendation for preconditioning:*
- 3.5. **CO₂ emissions/fuel consumption ⁽⁹⁾ (manufacturer's declared value)**
- 3.5.1. *CO₂ mass emissions*
- 3.5.1.1. CO₂ mass emissions (urban conditions): g/km
- 3.5.1.2. CO₂ mass emissions (extra-urban conditions): g/km
- 3.5.1.3. CO₂ mass emissions (combined): g/km
- 3.5.2. *Fuel consumption (provide details for each reference fuel tested)*
- 3.5.2.1. Fuel consumption (urban conditions): l/100 km/m³/100 km ⁽¹⁾
- 3.5.2.2. Fuel consumption (extra-urban conditions): l/100 km/m³/100 km ⁽¹⁾
- 3.5.2.3. Fuel consumption (combined): l/100 km/m³/100 km ⁽¹⁾

3.6. **Temperatures permitted by the manufacturer**

3.6.1. *Cooling system*

3.6.1.1. *Liquid cooling*

Maximum temperature at outlet: K

3.6.1.2. *Air cooling*

3.6.1.2.1. *Reference point:*

3.6.1.2.2. *Maximum temperature at reference point: K*

3.6.2. *Maximum outlet temperature of the inlet intercooler: K*

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

3.6.4. *Fuel temperature*

Minimum: K — maximum: K

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

3.6.5. *Lubricant temperature*

Minimum: K — maximum: K

3.6.6. *Fuel pressure*

Minimum: kPa — maximum: kPa

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

3.7. **Engine-driven equipment**

Power absorbed by the auxiliaries needed for operating the engine as specified in and under the operation conditions of Directive 80/1269/EEC, Annex I, Section 5.1.1.

Equipment	Power absorbed (kW) at various engine speeds						Ref. speed (**)
	Idle	Low speed	High speed	Speed A (*)	Speed B (*)	Speed C (*)	
P(a) Auxiliaries needed for operating the engine (to be subtracted from measured engine power) see Appendix 1, Section 6.1.							

(*) ESC test.

(**) ETC test only.

3.8. **Lubrication system**

3.8.1. *Description of the system*

3.8.1.1. *Position of lubricant reservoir:*

3.8.1.2. *Feed system (by pump/injection into intake/mixing with fuel, etc.) ⁽¹⁾*

- 3.8.2. *Lubricating pump*
- 3.8.2.1. Make(s):
- 3.8.2.2. Type(s):
- 3.8.3. *Mixture with fuel*
- 3.8.3.1. Percentage:
- 3.8.4. *Oil cooler: yes/no ⁽¹⁾*
- 3.8.4.1. Drawing(s): or
- 3.8.4.1.1. Make(s):
- 3.8.4.1.2. Type(s):

4. TRANSMISSION ^(P)

- 4.1. **Drawing of the transmission:**
- 4.2. **Type (mechanical, hydraulic, electric, etc.):**
- 4.2.1. A brief description of the electrical/electronic components (if any):
- 4.3. **Moment of inertia of engine flywheel:**
- 4.3.1. Additional moment of inertia with no gear engaged:
- 4.4. **Clutch**
- 4.4.1. Type:
- 4.4.2. Maximum torque conversion:
- 4.5. **Gearbox**
- 4.5.1. Type (manual/automatic/CVT (continuously variable transmission)) ⁽¹⁾
- 4.5.2. Location relative to the engine:
- 4.5.3. Method of control:

4.6. **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.

- 4.7. **Maximum vehicle design speed (in km/h) ⁽⁹⁾:**

- 4.8. **Speedometer**
- 4.8.1. Method of operation and description of drive mechanism:
- 4.8.2. Instrument constant:
- 4.8.3. Tolerance of the measuring mechanism (pursuant to item 2.1.3 of Annex II to Directive 75/443/EEC):
- 4.8.4. Overall transmission ratio (pursuant to item 2.1.2 of Annex II to Directive 75/443/EEC) or equivalent data:
- 4.8.5. Diagram of the speedometer scale or other forms of display:
- 4.9. **Tachograph: yes/no** ⁽¹⁾
- 4.9.1 Approval mark:
- 4.10. **Differential lock: yes/no/optional** ⁽¹⁾
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
- 6.1. Drawing of the suspension arrangements:
- 6.2. Type and design of the suspension of each axle or group of axles or wheel:
- 6.2.1. Level adjustment: yes/no/optional ⁽¹⁾
- 6.2.2. A brief description of the electrical/electronic components (if any):
- 6.2.3. Air-suspension for driving axle(s): yes/no ⁽¹⁾
- 6.2.3.1. Suspension of driving axle(s) equivalent to air-suspension: yes/no ⁽¹⁾
- 6.2.3.2. Frequency and damping of the oscillation of the sprung mass:
- 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⁾
- 6.2.4.2. Frequency and damping of the oscillation of the sprung mass:
- 6.3. **Characteristics of the springing parts of the suspension** (design, characteristics of the materials and dimensions):
- 6.4. **Stabilisers: yes/no/optional** ⁽¹⁾
- 6.5. **Shock absorbers: yes/no/optional** ⁽¹⁾

6.6.	Tyres and wheels
6.6.1.	<i>Tyre/wheel combination(s)</i>
	(a) for tyres indicate size designation, load-capacity index, speed category symbol, rolling resistance in accordance with ISO 28580 (where applicable) (°);
	(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.	<i>Upper and lower limits of rolling radii</i>
6.6.2.1.	Axle 1:
6.6.2.2.	Axle 2:
6.6.2.3.	Axle 3:
6.6.2.4.	Axle 4:
	etc.
6.6.3.	<i>Tyre pressure(s) as recommended by the vehicle manufacturer: kPa</i>
6.6.4.	<i>Chain/tyre/wheel combination on the front and/or rear axle that is suitable for the type of vehicle, as recommended by the manufacturer:</i>
6.6.5.	<i>Brief description of temporary use spare unit (if any):</i>
7.	STEERING
7.1.	Schematic diagram of steered axle(s) showing steering geometry:
7.2.	Transmission and control
7.2.1.	Type of steering transmission (specify for front and rear, if applicable):
7.2.2.	Linkage to wheels (including other than mechanical means; specify for front and rear, if applicable):
7.2.2.1.	A brief description of the electrical/electronic components (if any):
7.2.3.	Method of assistance (if any):
7.2.3.1.	Method and diagram of operation, make(s) and type(s):
7.2.4.	Diagram of the steering equipment as a whole, showing the position on the vehicle of the various devices influencing its steering behaviour:
7.2.5.	Schematic diagram(s) of the steering control(s):
7.2.6.	Range and method of adjustment (if any), of the steering control:
7.3.	Maximum steering angle of the wheels
7.3.1.	To the right: degrees; number of turns of the steering wheel (or equivalent data):

- 7.3.2. To the left: degrees; number of turns of the steering wheel (or equivalent data):
8. BRAKES
- (The following particulars, including means of identification, where applicable, are to be given)
- 8.1. Type and characteristics of the brakes as defined in point 1.6 of Annex I to Council Directive 71/320/EEC (OJ L 205, 6.9.1971, p. 37) 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:
- 8.2. Operating diagram, description and/or drawing of the braking system described in point 1.2 of Annex I to Directive 71/320/EEC including details and drawings of the transmission and controls:
- 8.2.1. Service braking system:
- 8.2.2. Secondary braking system:
- 8.2.3. Parking braking system:
- 8.2.4. Any additional braking system:
- 8.2.5. Break-away braking system:
- 8.3. Control and transmission of trailer braking systems in vehicles designed to tow a trailer:
- 8.4. Vehicle is equipped to tow a trailer with electric/pneumatic/hydraulic ⁽¹⁾ service brakes: yes/no ⁽¹⁾
- 8.5. Anti-lock braking system: yes/no/optional ⁽¹⁾
- 8.5.1. For vehicles with anti-lock systems, description of system operation (including any electronic parts), electric block diagram, hydraulic or pneumatic circuit plan:
- 8.6. Calculation and curves according to the Appendix to point 1.1.4.2 of the Appendix to Annex II to Directive 71/320/EEC or to the Appendix to Annex XI thereto, if applicable:
- 8.7. Description and/or drawing of the energy supply, also to be specified for power-assisted braking systems:
- 8.7.1. In the case of compressed-air braking systems, working pressure p₂ in the pressure reservoir(s):
- 8.7.2. In the case of vacuum braking systems, the initial energy level in the reservoir(s):
- 8.8. 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:
- 8.9. Brief description of the braking system according to point 1.6 of the Addendum to Appendix 1 of Annex IX to Directive 71/320/EEC:
- 8.10. 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 VII to Directive 71/320/EEC:
- 8.11. Particulars of the type(s) of endurance braking system(s):
9. BODYWORK
- 9.1. Type of bodywork using the codes defined in Part C of Annex II:
- 9.2. Materials used and methods of construction:
- 9.3. **Occupant doors, latches and hinges**
- 9.3.1. Door configuration and number of doors:

- 9.3.1.1. Dimensions, direction and maximum angle of opening:
- 9.3.2. Drawing of latches and hinges and of their position in the doors:
- 9.3.3. Technical description of latches and hinges:
- 9.3.4. Details, including dimensions, of entrances, steps and necessary handles where applicable:
- 9.4. **Field of vision**
- 9.4.1. 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:
- 9.4.2. Drawing(s) or photograph(s) showing the location of component parts within the 180° forward field of vision:
- 9.5. **Windscreen and other windows**
- 9.5.1. *Windscreen*
- 9.5.1.1. Materials used:
- 9.5.1.2. Method of mounting:
- 9.5.1.3. Angle of inclination:
- 9.5.1.4. Type-approval number(s):
- 9.5.1.5. Windscreen accessories and the position in which they are fitted together with a brief description of any electrical/electronic components involved:
- 9.5.2. *Other windows*
- 9.5.2.1. Materials used:
- 9.5.2.2. Type-approval number(s):
- 9.5.2.3. A brief description of the electrical/electronic components (if any) of the window lifting mechanism:
- 9.5.3. *Opening roof glazing*
- 9.5.3.1. Materials used:
- 9.5.3.2. Type-approval number(s):
- 9.5.4. *Other glass panes*
- 9.5.4.1. Materials used:
- 9.5.4.2. Type-approval number(s):
- 9.6. **Windscreen wiper(s)**
- 9.6.1. Detailed technical description (including photographs or drawings):
- 9.7. **Windscreen washer**
- 9.7.1. Detailed technical description (including photographs or drawings) or, if approved as separate technical unit, type-approval number:
- 9.8. **Defrosting and demisting**
- 9.8.1. Detailed technical description (including photographs or drawings):

- 9.8.2. Maximum electrical consumption: kW
- 9.9. **Devices for indirect vision**
- 9.9.1. Rear-view mirrors, stating for each mirror:
- 9.9.1.1. Make:
- 9.9.1.2. Type-approval mark:
- 9.9.1.3. Variant:
- 9.9.1.4. Drawing(s) for the identification of the mirror showing the position of the mirror relative to the vehicle structure:
- 9.9.1.5. Details of the method of attachment including that part of the vehicle structure to which it is attached:
- 9.9.1.6. Optional equipment which may affect the rearward field of vision:
- 9.9.1.7. A brief description of the electronic components (if any) of the adjustment system:
- 9.9.2. Devices for indirect vision other than mirrors:
- 9.9.2.1. Type and characteristics (such as a complete description of the device):
- 9.9.2.1.1. 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:
- 9.9.2.1.2. Sufficiently detailed drawings to identify the complete device, including installation instructions; the position for the EC type-approval mark has to be indicated on the drawings.
- 9.10. **Interior arrangement**
- 9.10.1. *Interior protection for occupants*
- 9.10.1.1. Layout drawing or photographs showing the position of the attached sections or views:
- 9.10.1.2. Photograph or drawing showing the reference zone including the exempted area referred to in point 2.3.1 of Annex I to Council Directive 74/60/EEC (OJ L 38, 11.2.1974, p. 2):
- 9.10.1.3. 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:
- 9.10.2. *Arrangement and identification of controls, tell-tales and indicators*
- 9.10.2.1. Photographs and/or drawings of the arrangement of symbols and controls, tell-tales and indicators: ..
- 9.10.2.2. Photographs and/or drawings of the identification of controls, tell-tales and indicators and of the vehicle parts referred to in Annex II and III of Directive 78/316/EEC where relevant:
- 9.10.2.3. Summary table
- The vehicle is equipped with the following controls, indicators and tell-tales pursuant to Annexes II and III to Directive 78/316/EEC

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						

Symbol No	Device	Control/indicator available (*)	Identified by symbol (*)	Where (**)	Tell-tale available (*)	Identified by symbol (*)	Where (**)
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 wind-screen 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.

9.10.3.	<i>Seats</i>
9.10.3.1.	Number of seating positions ^(*) :
9.10.3.1.1.	Location and arrangement:
9.10.3.2.	Seat(s) designated for use only when the vehicle is stationary:
9.10.3.3.	Mass:
9.10.3.4.	Characteristics: for seats not type-approved as components, description and drawings of
9.10.3.4.1.	The seats and their anchorages:
9.10.3.4.2.	The adjustment system:
9.10.3.4.3.	The displacement and locking systems:
9.10.3.4.4.	The seat-belt anchorages (if incorporated in the seat structure):
9.10.3.4.5.	The parts of the vehicle used as anchorages:
9.10.3.5.	Coordinates or drawing of the R-point ^(†)
9.10.3.5.1.	Driver's seat:
9.10.3.5.2.	All other seating positions:
9.10.3.6.	Design torso angle
9.10.3.6.1.	Driver's seat:
9.10.3.6.2.	All other seating positions:
9.10.3.7.	Range of seat adjustment
9.10.3.7.1.	Driver's seat:
9.10.3.7.2.	All other seating positions:
9.10.4.	<i>Head restraints</i>
9.10.4.1.	Type(s) of head restraints: integrated/detachable/separate ⁽¹⁾
9.10.4.2.	Type-approval number(s), if available:
9.10.4.3.	For head restraints not yet approved
9.10.4.3.1.	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:
9.10.4.3.2.	In the case of a "separate" head restraint
9.10.4.3.2.1.	A detailed description of the structural zone to which the head restraint is intended to be fixed:
9.10.4.3.2.2.	Dimensional drawings of the characteristic parts of the structure and the head restraint:
9.10.5.	<i>Heating systems for the passenger compartment</i>
9.10.5.1.	A brief description of the vehicle type with regard to the heating system if the heating system uses the heat of the engine cooling fluid:
9.10.5.2.	A detailed description of the vehicle type with regard to the heating if the cooling air or the exhaust gases of the engine are used as heat source, including:
9.10.5.2.1.	Layout drawing of the heating system showing its position in the vehicle:

- 9.10.5.2.2. 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):
- 9.10.5.2.3. 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:
- 9.10.5.2.4. 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:
- 9.10.5.3. A brief description of the vehicle type with regard to the combustion heating system and the automatic control:
- 9.10.5.3.1. 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.
- 9.10.5.4. Maximum electrical consumption: kW
- 9.10.6. *Components influencing the behaviour of the steering mechanism in the event of an impact*
- 9.10.6.1. A detailed description, including photograph(s) and/or drawing(s), of the vehicle type 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:
- 9.10.6.2. Photograph(s) and/or drawing(s) of vehicle components other than those described in 9.10.6.1 as identified by the manufacturer in agreement with the technical service, as contributing to the behaviour of the steering mechanism in case of impact:
- 9.10.7. *Burning behaviour of materials used in the interior construction of certain categories of motor vehicles*
- 9.10.7.1. Material(s) used for the interior lining of the roof
- 9.10.7.1.1. Component type-approval number(s), if available:
- 9.10.7.1.2. For materials not approved
- 9.10.7.1.2.1. Base material(s)/designation:/.....
- 9.10.7.1.2.2. Composite/single ⁽¹⁾ material, number of layers ⁽¹⁾:
- 9.10.7.1.2.3. Type of coating ⁽¹⁾:
- 9.10.7.1.2.4. Maximum/minimum thickness:/..... mm
- 9.10.7.2. Material(s) used for the rear and side walls
- 9.10.7.2.1. Component type-approval number(s), if available:
- 9.10.7.2.2. For materials not approved
- 9.10.7.2.2.1. Base material(s)/designation:/.....
- 9.10.7.2.2.2. Composite/single ⁽¹⁾ material, number of layers ⁽¹⁾:
- 9.10.7.2.2.3. Type of coating ⁽¹⁾:
- 9.10.7.2.2.4. Maximum/minimum thickness:/..... mm
- 9.10.7.3. Material(s) used for the floor
- 9.10.7.3.1. Component type-approval number(s), if available:
- 9.10.7.3.2. For materials not approved
- 9.10.7.3.2.1. Base material(s)/designation:/.....

- 9.10.7.3.2.2. Composite/single ⁽¹⁾ material, number of layers ⁽¹⁾:
- 9.10.7.3.2.3. Type of coating ⁽¹⁾:
- 9.10.7.3.2.4. Maximum/minimum thickness:/..... mm
- 9.10.7.4. Material(s) used for the upholstery of the seats
- 9.10.7.4.1. Component type-approval number(s), if available:
- 9.10.7.4.2. For materials not approved
- 9.10.7.4.2.1. Base material(s)/designation:/.....
- 9.10.7.4.2.2. Composite/single ⁽¹⁾ material, number of layers ⁽¹⁾:
- 9.10.7.4.2.3. Type of coating ⁽¹⁾:
- 9.10.7.4.2.4. Maximum/minimum thickness:/..... mm
- 9.10.7.5. Material(s) used for the heating and ventilation pipes
- 9.10.7.5.1. Component type-approval number(s), if available:
- 9.10.7.5.2. For materials not approved
- 9.10.7.5.2.1. Base material(s)/designation:/.....
- 9.10.7.5.2.2. Composite/single ⁽¹⁾ material, number of layers ⁽¹⁾:
- 9.10.7.5.2.3. Type of coating ⁽¹⁾:
- 9.10.7.5.2.4. Maximum/minimum thickness:/.....mm
- 9.10.7.6. Material(s) used for luggage racks
- 9.10.7.6.1. Component type-approval number(s), if available:
- 9.10.7.6.2. For materials not approved
- 9.10.7.6.2.1. Base material(s)/designation:/.....
- 9.10.7.6.2.2. Composite/single ⁽¹⁾ material, number of layers ⁽¹⁾:
- 9.10.7.6.2.3. Type of coating ⁽¹⁾:
- 9.10.7.6.2.4. Maximum/minimum thickness:/..... mm
- 9.10.7.7. Material(s) used for other purposes
- 9.10.7.7.1. Intended purposes:
- 9.10.7.7.2. Component type-approval number(s), if available:
- 9.10.7.7.3. For materials not approved
- 9.10.7.7.3.1. Base material(s)/designation:/.....
- 9.10.7.7.3.2. Composite/single ⁽¹⁾ material, number of layers ⁽¹⁾:
- 9.10.7.7.3.3. Type of coating ⁽¹⁾:
- 9.10.7.7.3.4. Maximum/minimum thickness:/.... mm

- 9.10.7.8. Components approved as complete devices (seats, separation walls, luggage racks, etc.)
- 9.10.7.8.1. Component type-approval number(s):
- 9.10.7.8.2. For the complete device: seat, separation wall, luggage racks, etc. (!)
- 9.10.8. Gas used as refrigerant in the air-conditioning system:
- 9.10.8.1. The air-conditioning system is designed to contain fluorinated greenhouse gases with global warming potential higher than 150: yes/no (!)
- 9.10.8.2. If yes, fill in the following sections
- 9.10.8.2.1. Drawing and brief description of the air-conditioning system, including the reference or part number and material of the leak components;
- 9.10.8.2.2. Leakage of the air-conditioning system
- 9.10.8.2.4. 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.):
- 9.10.8.3. Overall leakage in g/year of the entire system:

9.11. **External projections**

- 9.11.1. General arrangement (drawing or photographs) indicating the position of the attached sections and views:
- 9.11.2. 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:
- 9.11.3. Drawings of parts of the external surface in accordance with Annex I, item 6.9.1 to Directive 74/483/EEC:
- 9.11.4. Drawing of bumpers:
- 9.11.5. Drawing of the floor line:

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

- 9.12.1. 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 EC type-approval mark	Variant, if 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.

9.12.2. 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

9.12.3. Number and position of safety belt anchorages and proof of compliance with Directive 76/115/EEC, (i.e. type-approval number or test report):

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

9.13. **Safety belt anchorages**

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

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

9.13.3. Designation of the types ⁽⁴⁾ 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 Upper anchorages	{ outboard inboard	
Centre seat	{ Lower anchorages Upper anchorages	{ right left	
Left-hand seat	{ Lower anchorages Upper anchorages	{ outboard inboard	
Second row of seats (*)	Right-hand seat { Lower anchorages Upper anchorages	{ outboard inboard	
Centre seat	{ Lower anchorages Upper anchorages	{ right left	

		Anchorage location	
		Vehicle structure	Seat structure
Left-hand seat	{ Lower anchorages { Upper anchorages	{ outboard { inboard	

(*) 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.

- 9.13.4. Description of a particular type of safety belt where an anchorage is located in the seat backrest or incorporates an energy dissipating device:
- 9.14. **Space for mounting rear registration plates (give range where appropriate, drawings may be used where applicable)**
- 9.14.1. Height above road surface, upper edge:
- 9.14.2. Height above road surface, lower edge:
- 9.14.3. Distance of the centre line from the longitudinal median plane of the vehicle:
- 9.14.4. Distance from the left vehicle edge:
- 9.14.5. Dimensions (length x width):
- 9.14.6. Inclination of the plane to the vertical:
- 9.14.7. Angle of visibility in the horizontal plane:
- 9.15. **Rear under-run protection**
- 9.15.0. Presence: yes/no/incomplete ⁽¹⁾
- 9.15.1. 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:
- 9.15.2. 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:
- 9.16. **Wheel guards**
- 9.16.1. Brief description of the vehicle with regard to its wheel guards:
- 9.16.2. Detailed drawings of the wheel guards and their position on the vehicle showing the dimensions specified in Figure 1 of Annex I to Directive 78/549/EEC and taking account of the extremes of tyre/wheel combinations:
- 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. Manufacturer's declaration of compliance with the requirements set out in point 3.1.1.1 of Annex to Council Directive 76/114/EEC (OJ L 24, 30.1.1976, p. 1)
- 9.17.4.1. The meaning of characters in the second section and, if applicable, in the third section used to comply with the requirements of section 5.3 of ISO Standard 3779-1983 shall be explained:
- 9.17.4.2. If characters in the second section are used to comply with the requirements of section 5.4 of ISO Standard 3779-1983 these characters shall be indicated:
- 9.18. **Radio interference/electromagnetic compatibility**
- 9.18.1. 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:
- 9.18.2. 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.):
- 9.18.3. Table and drawing of radio-interference control equipment:
- 9.18.4. Particulars of the nominal value of the direct current resistance, and, in the case of resistive ignition cables, of their nominal resistance per metre:
- 9.19. **Lateral protection**
- 9.19.0. Presence: yes/no/incomplete ⁽¹⁾
- 9.19.1. 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:
- 9.19.2. 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):
- 9.20. **Spray-suppression system**
- 9.20.0. Presence: yes/no/incomplete ⁽¹⁾
- 9.20.1. Brief description of the vehicle with regard to its spray-suppression system and the constituent components:
- 9.20.2. Detailed drawings of the spray-suppression system and its position on the vehicle showing the dimensions specified in the figures in Annex III to Directive 91/226/EEC and taking account of the extremes of tyre/wheel combinations:
- 9.20.3. Type-approval number(s) of spray-suppression device(s), if available:
- 9.21. **Side-impact resistance**
- 9.21.1. 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:
- 9.22. **Front under-run protection**
- 9.22.0. Presence: yes/no/incomplete ⁽¹⁾
- 9.22.1. 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:
- 9.22.2. 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:

- 9.23. **Pedestrian protection**
- 9.23.1. 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.
- 9.24. **Frontal protection systems**
- 9.24.1. 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 protection system and the frontal part of the vehicle.
- 9.24.2. Detailed description, including photographs and/or drawings, of the method of fitting the frontal protection system to the vehicle (provide bolt dimensions and required torques).
- 9.24.3. Type-approval mark (if available):
10. LIGHTING AND LIGHT SIGNALLING DEVICES
- 10.1. Table of all devices: number, make, model, type-approval mark, maximum intensity of main-beam headlamps, colour, tell-tale:
- 10.2. Drawing of the position of lighting and light signalling devices:
- 10.3. For every lamp and reflector specified in Council Directive 76/756/EEC (OJ L 262, 27.9.1976, p. 1) supply the following information (in writing and/or by diagram)
- 10.3.1. Drawing showing the extent of the illuminating surface:
- 10.3.2. Method used for the definition of the apparent surface in accordance with paragraph 2.10 of UNECE Regulation No 48 (OJ L 137, 30.5.2007, p. 1):
- 10.3.3. Axis of reference and centre of reference:
- 10.3.4. Method of operation of concealable lamps:
- 10.3.5. Any specific mounting and wiring provisions:
- 10.4. Dipped beam lamps: normal orientation in accordance to paragraph 6.2.6.1 of UNECE Regulation No 48:
- 10.4.1. Value of initial adjustment:
- 10.4.2. Location of indication:
- 10.4.3. Description/drawing ⁽¹⁾ and type of headlamp levelling device (e.g. automatic, stepwise manually adjustable, continuously manually adjustable):
- 10.4.4. Control device:
- 10.4.5. Reference marks:
- 10.4.6. Marks assigned for loading conditions:
- } Applicable only for vehicles with headlamp levelling device
- 10.5. A brief description of electrical/electronic components other than lamps (if any):
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:
- 11.2. 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
- 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 vehicle type:

11.4.	Information of the fitting of special towing brackets or mounting plates:
11.5.	Type-approval number(s):
12.	MISCELLANEOUS
12.1.	Audible warning device(s)
12.1.1.	Location, method of affixing, placement and orientation of the device(s), with dimensions:
12.1.2.	Number of device(s):
12.1.3.	Type-approval number(s):
12.1.4.	Electrical/pneumatic ⁽¹⁾ circuit diagram:
12.1.5.	Rated voltage or pressure:
12.1.6.	Drawing of the mounting device:
12.2.	Devices to prevent unauthorised use of the vehicle
12.2.1.	Protective device
12.2.1.1.	A detailed description of the vehicle type with regard to the arrangement and design of the control or of the unit on which the protective device acts:
12.2.1.2.	Drawings of the protective device and of its mounting on the vehicle:
12.2.1.3.	A technical description of the device:
12.2.1.4.	Details of the lock combinations used:
12.2.1.5.	Vehicle immobiliser
12.2.1.5.1.	Type-approval number, if available:
12.2.1.5.2.	For immobilisers not yet approved
12.2.1.5.2.1.	A detailed technical description of the vehicle immobiliser and of the measures taken against inadvertent activation:
12.2.1.5.2.2.	The system(s) on which the vehicle immobiliser acts:
12.2.1.5.2.3.	Number of effective interchangeable codes, if applicable:
12.2.2.	Alarm system (if any)
12.2.2.1.	Type-approval number, if available:
12.2.2.2.	For alarm systems not yet approved
12.2.2.2.1.	A detailed description of the alarm system and of the vehicle parts related to the alarm system installed:
12.2.2.2.2.	A list of the main components comprising the alarm system:
12.2.3.	A brief description of the electrical/electronic components (if any):
12.3.	Towing device(s)
12.3.1.	Front: Hook/eye/other ⁽¹⁾
12.3.2.	Rear: Hook/eye/other/none ⁽¹⁾
12.3.3.	Drawing or photograph of the chassis/area of the vehicle body showing the position, construction and mounting of the towing device(s):
12.4.	Details of any non-engine related devices designed to influence fuel consumption (if not covered by other items):

- 12.5. Details of any non-engine related devices designed to reduce noise (if not covered by other items): ...
- 12.6. Speed limitation devices
- 12.6.1. Manufacturer(s):
- 12.6.2. Type(s):
- 12.6.3. Type-approval number(s), if available:
- 12.6.4. Speed or range of speeds at which the speed limitation may be set: km/h
- 12.7. Table of installation and use of RF transmitters in the vehicle(s), if applicable:

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

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 Commission Directive 72/245/EEC (OJ L 152, 6.7.1972, p. 15).

Appendix 2

Schematics or drawing of the general arrangement of electrical and/or electronic components concerned by Directive 72/245/EEC 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

- 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⁾
- 13.1.1. Type-approval number of bodywork approved as a separate technical unit:
- 13.1.2. Chassis types where the type-approved bodywork can be installed (manufacturer(s), and types of incomplete vehicle):
- 13.2. **Area for passengers (m²)**
- 13.2.1. Total (S₀):
- 13.2.2. Upper deck (S_{0a}) ⁽¹⁾:
- 13.2.3. Lower deck (S_{0b}) ⁽¹⁾:
- 13.2.4. For standing passengers (S₁):

- 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 M₂ and M₃ vehicles:
- 13.5. **Number of service doors:**
- 13.6. **Number of emergency exits** (doors, windows, escape hatches, intercommunication staircase and half staircase):
- 13.6.1. Total:
- 13.6.2. Upper deck ⁽¹⁾:
- 13.6.3. Lower deck ⁽¹⁾:
- 13.7. **Volume of luggage compartments (m³):**
- 13.8. **Area of luggage transportation on the roof (m²):**
- 13.9. **Technical devices facilitating the access to vehicles** (e.g. ramp, lifting platform, kneeling system), if fitted:
- 13.10. **Strength of superstructure**
- 13.10.1. Type-approval number, if available:
- 13.10.2. For superstructures not yet approved
- 13.10.2.1. Detailed description of the superstructure of the vehicle type including its dimensions, configuration and constituent materials and its attachment to any chassis frame:
- 13.10.2.2. 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:
- 13.10.2.3. Position of centre of gravity of the vehicle in running order in the longitudinal, transverse and vertical directions:
- 13.10.2.4. Maximum distance between the centre lines of the outboard passenger seats:
- 13.11. **Points of Directive 2001/85/EC of the European parliament and of the Council (OJ L 42, 13.2.2002, p. 1) to be accomplished and demonstrated for this technical unit:**
14. SPECIAL PROVISIONS FOR VEHICLES INTENDED FOR THE TRANSPORT OF DANGEROUS GOODS
- 14.1. **Electrical equipment according to Council Directive 94/55/EC (OJ L 319, 12.12.1994, p. 1)**
- 14.1.1. Protection against overheating of conductors:
- 14.1.2. Type of circuit breaker:
- 14.1.3. Type and operation of battery master switch:
- 14.1.4. Description and location of safety barrier for tachograph:

- 14.1.5. Description of permanently energised installations. Indicate the EN standard applied:
- 14.1.6. Construction and protection of electrical installation situated to the rear of the driver's compartment:
- 14.2. **Prevention of fire risks**
- 14.2.1. Type of not readily flammable material in the driver's compartment:
- 14.2.2. Type of heat shield behind the driver's compartment (if applicable):
- 14.2.3. Position and heat protection of engine:
- 14.2.4. Position and heat protection of the exhaust system:
- 14.2.5. Type and design of the endurance braking systems heat protection:
- 14.2.6. Type, design and position of combustion heaters:
- 14.3. **Special requirements for bodywork, if any, according to Directive 94/55/EC**
- 14.3.1. Description of measures to comply with the requirements for Type EX/II and Type EX/III vehicles: ...
- 14.3.2. In the case of Type EX/III vehicles, resistance against heat from the outside:
15. REUSABILITY, RECYCLABILITY AND RECOVERABILITY
- 15.1. Version to which the reference vehicle belongs:
- 15.2. 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:
- 15.3. Mass of materials of the reference vehicle:
- 15.3.1. Mass of material taken into account at the pre-treatment step (%):
- 15.3.2. Mass of the material taken into account at the dismantling step (%):
- 15.3.3. Mass of material taken into account at the non-metallic residue treatment step, considered as recyclable (%):
- 15.3.4. Mass of material taken into account at the non-metallic residue treatment step, considered as energy recoverable (%):
- 15.3.5. Materials breakdown (%):
- 15.3.6. Total mass of materials, which are reusable and/or recyclable:
- 15.3.7. Total mass of materials, which are reusable and/or recoverable:
- 15.4. **Rates**
- 15.4.1. Recyclability rate "R_{cyc}" (%):
- 15.4.2. Recoverability rate "R_{cov}" (%):
16. ACCESS TO VEHICLE REPAIR AND MAINTENANCE INFORMATION
- 16.1. Address of principal website for access to vehicle repair and maintenance information:
- 16.1.1. Date from which it is available (no later than 6 months from the date of type-approval):
- 16.2. Terms and conditions of access to website:
- 16.3. 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) Set out in such a way as to make the actual value clear for each technical configuration of the vehicle type.
- (⁶) 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.
- (^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.
- (^e) “Forward control” as defined in point 2.7 of Annex I to Council Directive 74/297/EEC (OJ L 165, 20.6.1974, p. 16).
- (^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: point 2.4.1 of Annex I to Directive 97/27/EC of the European Parliament and of the Council (OJ L 233, 25.8.1997, p. 1).
In the case of trailers, the lengths shall be specified as mentioned in term No 6.1.2 of Standard ISO 612: 1978.
- (^{g6}) Term No 6.17.
- (^{g7}) Term No 6.2 and for vehicles other than those of category M₁: point 2.4.2 of Annex I to Directive 97/27/EC.
- (^{g8}) Term No 6.3 and for vehicles other than those of category M₁: point 2.4.3 of Annex I to Directive 97/27/EC.
- (^{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 and, if applicable, of the crew member is assessed at 75 kg (subdivided into 68 kg occupant mass and 7 kg luggage mass according to ISO Standard 2416 — 1992), the fuel tank is filled to 90 % and the other liquid containing systems (except those for used water) to 100 % of the capacity specified by the manufacturer.
- (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 cm³.
- (ⁿ) Determined in accordance with the requirements of Council Directive 80/1269/EEC (OJ L 375, 31.12.1980, p. 46).
- (^o) Determined in accordance with the requirements of Council Directive 80/1268/EEC (OJ L 375, 31.12.1980, p. 36).
- (^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 Council Directive 77/649/EEC (OJ L 267, 19.10.1977, p. 1).
- (^u) For symbols and marks to be used, see Annex III, items 1.1.3 and 1.1.4 to Council Directive 77/541/EEC (OJ L 220, 29.8.1977, p. 95). 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.’

ANNEX II

ANNEX III

INFORMATION DOCUMENT FOR THE PURPOSE OF EC TYPE-APPROVAL OF VEHICLES

(For explanatory notes, please refer to last page of Annex I)

PART I

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.

A. Categories M and N

- 0. GENERAL
 - 0.1. Make (trade name of manufacturer):
 - 0.2. Type:
 - 0.2.1. Commercial name(s) (if available):
 - 0.3. Means of identification of type, if marked on the vehicle ^(b):
 - 0.3.1. Location of that marking:
 - 0.4. Category of vehicle ^(c):
 - 0.4.1. Classification(s) according to the dangerous goods which the vehicle is intended to transport:
 - 0.5. Name and address of manufacturer:
 - 0.8. Name(s) and address(es) of assembly plant(s):
 - 0.9. Name and address of the manufacturer's representative (if any):
- 1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE
 - 1.1. Photographs and/or drawings of a representative vehicle:
 - 1.3. Number of axles and wheels:
 - 1.3.1. Number and position of axles with twin wheels:
 - 1.3.2. Number and position of steered axles:
 - 1.3.3. Powered axles (number, position, interconnection):
 - 1.4. Chassis (if any) (overall drawing):
 - 1.6. Position and arrangement of the engine:
 - 1.8. Hand of drive: left/right ⁽¹⁾
 - 1.8.1. Vehicle is equipped to be driven in right/left ⁽¹⁾ hand traffic
- 2. MASSES AND DIMENSIONS ^{(f)(g)}

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

2.1.	Wheelbase(s) (fully loaded) ^(g1):
2.1.1.	<i>Two-axle vehicles:</i>
2.1.2.	<i>Vehicles with three or more axles</i>
2.1.2.1.	Axle spacing between consecutive axles going from the foremost to the rearmost axle:
2.1.2.2.	Total axle spacing:
2.3.1.	Track of each steered axle ^(g4) :
2.3.2.	Track of all other axles ^(g4) :
2.4.	Range of vehicle dimensions (overall)
2.4.1.	<i>For chassis without bodywork</i>
2.4.1.1.	Length ^(g5) :
2.4.1.1.1.	Maximum permissible length:
2.4.1.1.2.	Minimum permissible length:
2.4.1.2.	Width ^(g7) :
2.4.1.2.1.	Maximum permissible width:
2.4.1.2.2.	Minimum permissible width:
2.4.1.3.	Height (in running order) ^(g8) (for suspensions adjustable for height, indicate normal running position):
2.4.2.	<i>For chassis with bodywork</i>
2.4.2.1.	Length ^(g5) :
2.4.2.1.1.	Length of the loading area:
2.4.2.2.	Width ^(g7) :
2.4.2.2.1.	Thickness of the walls (in the case of vehicles designed for controlled-temperature transport of goods):
2.4.2.3.	Height (in running order) ^(g8) (for suspensions adjustable for height, indicate normal running position):
2.6.	Mass in running order
	Mass of the vehicle with bodywork and, in the case of a towing vehicle of a category other than M ₁ , with coupling device, if fitted by the manufacturer, in running order, or mass of the chassis or 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, and driver and, for buses and coaches, a crew member if there is a crew seat in the vehicle) ^(h) (maximum and minimum for each variant):
2.6.1.	Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point (maximum and minimum for each variant):
2.7.	Minimum mass of the completed vehicle as stated by the manufacturer, in the case of an incomplete vehicle:
2.8.	Technically permissible maximum laden mass stated by the manufacturer ⁽ⁱ⁾ / ^(j) :
2.8.1.	Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point ^(j) :
2.9.	Technically permissible maximum mass on each axle:
2.10.	Technically permissible maximum mass on each axle group:
2.11.	Technically permissible maximum towable mass of the motor vehicle in case of

- 2.11.1. Drawbar trailer:
- 2.11.2. Semi-trailer:
- 2.11.3. Centre-axle trailer:
- 2.11.4. Technically permissible maximum mass of the combination ⁽³⁾:
- 2.11.6. Maximum mass of unbraked trailer:
- 2.12. **Technically permissible maximum static vertical load/mass on the vehicle's coupling point:**
- 2.12.1. Of the motor vehicle:
- 2.16. **Intended registration/in service maximum permissible masses** (optional: where these values are given, they shall be verified in accordance with the requirements of Annex IV to Directive 97/27/EC)
- 2.16.1. Intended registration/in service maximum permissible laden mass (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.2. Intended 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 (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.3. Intended registration/in service maximum permissible mass on each axle group (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.4. Intended registration/in service maximum permissible towable mass (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.5. Intended registration/in service maximum permissible mass of the combination (several entries possible for each technical configuration ⁽⁵⁾):
- 3. POWER PLANT ^(k)
- 3.1. **Manufacturer of the engine:**
- 3.1.1. Manufacturer's engine code (as marked on the engine or other means of identification):
- 3.1.2. Approval number (if appropriate) including fuel identification marking:
(heavy-duty vehicles only)
- 3.2. **Internal combustion engine**
- 3.2.1.1. Working principle: positive ignition/compression ignition ⁽¹⁾
Cycle: four stroke/two stroke/rotary ⁽¹⁾
- 3.2.1.2. Number and arrangement of cylinders:
- 3.2.1.3. Engine capacity ^(m): cm³
- 3.2.1.6. Normal engine idling speed ⁽²⁾: min⁻¹
- 3.2.1.8. Maximum net power ⁽ⁿ⁾: kW at min⁻¹ (manufacturer's declared value)
- 3.2.2.1. Light-duty vehicles: Diesel/Petrol/LPG/NG or Biomethane/Ethanol (E 85)/Biodiesel/Hydrogen ⁽¹⁾ ⁽⁶⁾
- 3.2.2.2. Heavy-duty vehicles: Diesel/Petrol/LPG/NG-H/NG-L/NG-HL/Ethanol ⁽¹⁾ ⁽⁶⁾
- 3.2.2.4. Vehicle fuel type: Mono fuel, Bi fuel, Flex fuel ⁽¹⁾
- 3.2.2.5. Maximum amount of biofuel acceptable in fuel (manufacturer's declared value): % by volume
- 3.2.3. Fuel tank(s)
- 3.2.3.1. Service fuel tank(s)

- 3.2.3.1.1. Number and capacity of each tank:
- 3.2.3.2. Reserve fuel tank(s)
- 3.2.3.2.1. Number and capacity of each tank:
- 3.2.4. *Fuel feed*
- 3.2.4.1. By carburettor(s): yes/no ⁽¹⁾
- 3.2.4.2. By fuel injection (compression ignition only): yes/no ⁽¹⁾
- 3.2.4.2.2. Working principle: direct injection/pre-chamber/swirl chamber ⁽¹⁾
- 3.2.4.3. By fuel injection (positive ignition only): yes/no ⁽¹⁾
- 3.2.7. *Cooling system: liquid/air* ⁽¹⁾
- 3.2.8. *Intake system*
- 3.2.8.1. Pressure charger: yes/no ⁽¹⁾
- 3.2.8.2. Intercooler: yes/no ⁽¹⁾
- 3.2.9. *Exhaust system*
- 3.2.9.4. Type, marking of exhaust silencer(s):
- Where relevant for exterior noise, reducing measures in the engine compartment and on the engine:
- 3.2.9.5. Location of the exhaust outlet:
- 3.2.12. *Measures taken against air pollution*
- 3.2.12.2. Additional pollution control devices (if any, and if not covered by another heading)
- 3.2.12.2.1. Catalytic converter: yes/no ⁽¹⁾
- 3.2.12.2.1.11. Regeneration systems/method of exhaust after-treatment systems, description:
- 3.2.12.2.1.11.6. Consumable reagents: yes/no ⁽¹⁾
- 3.2.12.2.1.11.7. Type and concentration of reagent needed for catalytic action:
- 3.2.12.2.2. Oxygen sensor: yes/no ⁽¹⁾
- 3.2.12.2.3. Air injection: yes/no ⁽¹⁾
- 3.2.12.2.4. Exhaust gas recirculation: yes/no ⁽¹⁾
- 3.2.12.2.5. Evaporative emissions control system: yes/no ⁽¹⁾
- 3.2.12.2.6. Particulate trap: yes/no ⁽¹⁾
- 3.2.12.2.7. On-board-diagnostic (OBD) system: yes/no ⁽¹⁾
- 3.2.12.2.8. Other systems (description and operation):
- 3.2.12.2.9. Torque limiter: yes/no ⁽¹⁾
- 3.2.13.1. Location of the absorption coefficient symbol (compression ignition engines only):
- 3.2.15. LPG fuelling system: yes/no ⁽¹⁾
- 3.2.16. NG fuelling system: yes/no ⁽¹⁾
- 3.3. **Electric motor**
- 3.3.1. Type (winding, excitation):
- 3.3.1.1. Maximum hourly output: kW

- 3.3.1.2. Operating voltage: V
- 3.3.2. Battery
- 3.3.2.4. Position:
- 3.4. **Engine or motor combination**
- 3.4.1. Hybrid electric vehicle: yes/no ⁽¹⁾
- 3.4.2. Category of hybrid electric vehicle: off-vehicle charging/not off-vehicle charging: ⁽¹⁾
- 3.6.5. *Lubricant temperature*
- Minimum: K
- Maximum: K

4. TRANSMISSION ^(P)
- 4.2. **Type** (mechanical, hydraulic, electric, etc.):
- 4.5. **Gearbox**
- 4.5.1. Type (manual/automatic/CVT (continuously variable transmission)) ⁽¹⁾
- 4.6. **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			

- 4.7. **Maximum vehicle design speed** (in km/h) ⁽⁹⁾
- 4.9. **Tachograph:** yes/no ⁽¹⁾
- 4.9.1. *Approval mark:*
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⁾

- 6.2.3. 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) ⁽¹⁾;
- (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 limits 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, if applicable):
- 7.2.2. Linkage to wheels (including other than mechanical means; specify for front and rear, if applicable): ...
- 7.2.3. Method of assistance, if any:
8. BRAKES
- 8.5. Anti-lock braking system: yes/no/optional ⁽¹⁾
- 8.9. Brief description of the braking system according to item 1.6 of the Addendum to Appendix 1 of Annex IX to Directive 71/320/EEC:
- 8.11. Particulars of the type(s) of endurance braking system(s):
9. BODYWORK
- 9.1. Type of bodywork using the codes set out in Part C of Annex II:
- 9.3. **Occupant doors, latches and hinges**
- 9.3.1. Door configuration and number of doors:
- 9.9. **Devices for indirect vision**
- 9.9.1. Rear-view mirrors, stating, for each rear-view mirror:
- 9.9.1.1. Make:
- 9.9.1.2. Type-approval mark:

- 9.9.1.3. Variant:
- 9.9.1.6. Optional equipment which may affect the rearward field of vision:
- 9.9.2. Devices for indirect vision other than mirrors:
- 9.9.2.1. Type and description of the device:
- 9.10. **Interior arrangement**
- 9.10.3. *Seats*
- 9.10.3.1. Number of seating positions ⁽⁶⁾:
- 9.10.3.1.1. Location and arrangement:
- 9.10.3.2. Seat(s) designated for use only when the vehicle is stationary:
- 9.10.4.1. Type(s) of head restraints: integrated/detachable/separate ⁽¹⁾
- 9.10.4.2. Type-approval number(s), if available:
- 9.10.8. Gas used as refrigerant in the air-conditioning system:
- 9.10.8.1. The air-conditioning system is designed to contain fluorinated greenhouse gases with a global warming potential higher than 150: yes/no ⁽¹⁾
- 9.12.2. 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.

- 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 second section and, if applicable, in the third section used to comply with the requirements of section 5.3 of ISO Standard 3779-1983 shall be explained:
- 9.17.4.2. If characters in the second section are used to comply with the requirements of section 5.4 of ISO Standard 3779-1983, these characters shall be indicated:
- 9.22. **Front under-run protection**
- 9.22.0. Presence: yes/no/incomplete ⁽¹⁾

- 9.23. **Pedestrian protection**
- 9.23.1. 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
- 9.24. **Frontal protection systems**
- 9.24.1. Frontal protection system: yes/no/optional ⁽¹⁾
- 9.24.3. Type-approval mark if any:
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 vehicle type:
- 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 M₂ and M₃ 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

0. GENERAL
- 0.1. Make (trade name of manufacturer):
- 0.2. Type:
- 0.2.1. Commercial name(s) (if available):

- 0.3. Means of identification of type, if marked on the vehicle ^(b):
- 0.3.1. Location of that marking:
- 0.4. Category of vehicle ^(c):
- 0.4.1. Classification(s) according to the dangerous goods which the vehicle is intended to transport:
- 0.5. Name and address of manufacturer:
- 0.8. Name(s) and address(es) of assembly plant(s):
- 0.9. Name and address of the manufacturer's representative (if any):
1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE
- 1.1. Photographs and/or drawings of a representative vehicle:
- 1.3. Number of axles and wheels:
- 1.3.1. Number and position of axles with twin wheels:
- 1.3.2. Number and position of steered axles:
- 1.4. Chassis (if any) (overall drawing):
2. MASSES AND DIMENSIONS ^{(f)(g)}
(in kg and mm) (refer to drawing where applicable)
- 2.1. **Wheelbase(s) (fully loaded) ^(g1):**
- 2.1.1. Two-axle vehicles:
- 2.1.2. *Vehicles with three or more axles*
- 2.1.2.1. Axle spacing between consecutive axles going from the foremost to the rearmost axle:
- 2.1.2.2. Total axle spacing:
- 2.3.1. Track of each steered axle ^(g4):
- 2.3.2. Track of all other axles ^(g4):
- 2.4. **Range of vehicle dimensions (overall)**
- 2.4.1. *For chassis without bodywork*
- 2.4.1.1. Length ^(g5):
- 2.4.1.1.1. Maximum permissible length:
- 2.4.1.1.2. Minimum permissible length:
- 2.4.1.1.3. In the case of trailers, maximum permissible drawbar length ^(g6):
- 2.4.1.2. Width ^(g7):
- 2.4.1.2.1. Maximum permissible width:
- 2.4.1.2.2. Minimum permissible width:
- 2.4.2. *For chassis with bodywork*
- 2.4.2.1. Length ^(g5):
- 2.4.2.1.1. Length of the loading area:
- 2.4.2.1.2. In the case of trailers, maximum permissible drawbar length ^(g6):

- 2.4.2.2. Width ^(g7):
- 2.4.2.2.1. Thickness of the walls (in the case of vehicles designed for controlled-temperature transport of goods):
- 2.4.2.3. Height (in running order) ^(g8) (for suspension adjustable for height, indicate normal running position):
- 2.6. **Mass in running order**
- Mass of the vehicle with bodywork and, in the case of a towing vehicle of a category other than M₁, with coupling device, if fitted by the manufacturer, in running order, or mass of the chassis or 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, and driver and, for buses and coaches, a crew member if there is a crew seat in the vehicle) ^(h) (maximum and minimum for each variant):
- 2.6.1. Distribution of this mass among the axles and, in the case of a semi-trailer or centre-axle trailer, load on the coupling point (maximum and minimum for each variant):
- 2.7. **Minimum mass of the completed vehicle** as stated by the manufacturer, in the case of an incomplete vehicle:
- 2.8. **Technically permissible maximum laden mass** stated by the manufacturer ⁽ⁱ⁾/⁽³⁾:
- 2.8.1. 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⁾:
- 2.9. **Technically permissible maximum mass on each axle:**
- 2.10. **Technically permissible maximum mass on each axle group:**
- 2.12. **Technically permissible maximum static vertical load/mass** on the vehicle's coupling point
- 2.12.2. Of the semi-trailer or centre-axle trailer:
- 2.16. **Intended registration/in service maximum permissible masses** (optional: where these values are given, they shall be verified in accordance with the requirements of Annex IV to Directive 97/27/EC)
- 2.16.1. Intended registration/in service maximum permissible laden mass (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.2. Intended 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 (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.3. Intended registration/in service maximum permissible mass on each axle group (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.4. Intended registration/in service maximum permissible towable mass (several entries possible for each technical configuration ⁽⁵⁾):
- 2.16.5. Intended registration/in service maximum permissible mass of the combination (several entries possible for each technical configuration ⁽⁵⁾):
4. TRANSMISSION
- 4.7. Maximum vehicle design speed (in km/h) ⁽⁴⁾
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) ⁽¹⁾;
- (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, if applicable):
- 7.2.2. Linkage to the wheels (including other than mechanical means; specify for front and rear, if 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 system, according to item 1.6 of the addendum to Appendix 1 of Annex IX to Directive 71/320/EEC:
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 second section and, if applicable, in the third section used to comply with the requirements of section 5.3 of ISO Standard 3779-1983 shall be explained:
- 9.17.4.2. If characters in the second section are used to comply with the requirements of section 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 vehicle type

Item No	All	Version 1	Version 2	Version 3	Version n

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 above information may be presented in an alternative layout or merged with the information supplied in 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 XI shall be identified by a specific alphanumerical code.

PART III

Type-approval numbers

Supply the information required by the following table in respect of the applicable subjects for this vehicle in Annex IV or Annex XI. (All relevant approvals for each subject 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 prescriptions).

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 9(6). In such a case, the applied regulatory act shall be specified in the second column.

Signed:

Position in company:

Date:



Item	Subject	Regulatory act reference	Official Journal reference	Applicability										
				M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	
59	Recyclability	Directive 2005/64/EC	L 310, 25.11.2005, p. 10	X			X		—					
60	Frontal protection systems	Directive 2005/66/EC	L 309, 25.11.2005, p. 37	X			X							
61	Air-conditioning systems	Directive 2006/40/EC	L 161, 14.6.2006, p. 12	X			X ⁽⁸⁾							

X Regulatory act applicable (see act for details).

⁽¹⁾ Vehicles of this category shall be fitted with an adequate windscreen defrosting and demisting device.

⁽²⁾ Vehicles of this category shall be fitted with adequate windscreen washing and wiping devices.

⁽³⁾ The requirements of Directive 94/20/EC shall apply only to vehicles equipped with couplings.

⁽⁴⁾ The requirements of Directive 98/91/EC shall apply only when the manufacturer applies for the type-approval of a vehicle intended for the transport of dangerous goods.

⁽⁵⁾ In case of LPG or CNG vehicles, pending the adoption of the relevant amendments to Directive 70/221/EEC in order to include LPG and CNG tanks, a vehicle approval in accordance with UNECE Regulation No 67, as amended by the 01 series of amendments or UNECE Regulation No 110 is required.

⁽⁶⁾ Not exceeding 2,5 tonnes technically permissible maximum laden mass.

⁽⁷⁾ Derived from M1 category vehicles.

⁽⁸⁾ Only for vehicles of category N₁, class I as described in the first table in point 5.3.1.4 of Annex I to Directive 70/220/EEC.

⁽⁹⁾ For vehicles with a reference mass not exceeding 2 610 kg. At the manufacturer's request may apply to vehicles with a reference mass not exceeding 2 840 kg.

⁽¹⁰⁾ For vehicles with a reference mass exceeding 2 610 kg and which did not benefit from the opportunity offered in footnote (9).

⁽¹¹⁾ Only applicable to vehicles where the "Seating reference point ('R' point)" of the lowest seat is not more than 700 mm high above the ground level. The "R" point is defined in Directive 77/649/EEC.

Appendix

List of regulatory acts for type-approval of vehicles belonging to the category M₁, produced in small series pursuant to Article 22

	Subject	Regulatory act reference	Official Journal reference	M ₁
1	Permissible sound level	Directive 70/157/EEC	L 42, 23.2.1970, p. 16	A
2	Emissions with the exception of the whole set of requirements relating to On Board Diagnostics (OBDs)	Directive 70/220/EEC	L 76, 6.4.1970, p. 1	A
2a	Emissions (Euro 5 and 6) with the exception of the whole set of requirements relating to On Board Diagnostics (OBDs) and access to information	Regulation (EC) No 715/2007	L 171, 29.6.2007, p. 1	A
3	Fuel tanks/Rear protective devices	Directive 70/221/EEC	L 76, 6.4.1970, p. 23	B
4	Rear registration plate space	Directive 70/222/EEC	L 76, 6.4.1970, p. 25	B
5	Steering effort	Directive 70/311/EEC	L 133, 18.6.1970, p. 10	C
6	Door latches and hinges	Directive 70/387/EEC	L 176, 10.8.1970, p. 5	C
7	Audible warning	Directive 70/388/EEC	L 176, 10.8.1970, p. 12	B
8	Indirect vision devices	Directive 2003/97/EC	L 25, 29.1.2004, p. 1	X ⁽²⁾ B ⁽⁴⁾
9	Braking	Directive 71/320/EEC	L 202, 6.9.1971, p. 37	A
10	Radio interference (electromagnetic compatibility)	Directive 72/245/EEC	L 152, 6.7.1972, p. 15	A ⁽¹⁾ C ⁽³⁾
11	Diesel smoke	Directive 72/306/EEC	L 190, 20.8.1972, p. 1	A
12	Interior fittings	Directive 74/60/EEC	L 38, 11.2.1974, p. 2	C
13	Anti-theft and immobiliser	Directive 74/61/EEC	L 38, 11.2.1974, p. 22	A
14	Protective steering	Directive 74/297/EEC	L 165, 20.6.1974, p. 16	C
15	Seat strength	Directive 74/408/EEC	L 221, 12.8.1974, p. 1	C
16	Exterior projections	Directive 74/483/EEC	L 266, 2.10.1974, p. 4	C
17	Speedometer and reverse gear	Directive 75/443/EEC	L 196, 26.7.1975, p. 1	B
18	Plates (statutory)	Directive 76/114/EEC	L 24, 30.1.1976, p. 1	B
19	Seat-belt anchorages	Directive 76/115/EEC	L 24, 30.1.1976, p. 6	B
20	Installation of lighting and light signalling devices	Directive 76/756/EEC	L 262, 27.9.1976, p. 1	B
21	Retro reflectors	Directive 76/757/EEC	L 262, 27.9.1976, p. 32	X

	Subject	Regulatory act reference	Official Journal reference	M ₁
22	End-outline, front position (side), rear-position (side), stop, side marker, daytime running lamps	Directive 76/758/EEC	L 262, 27.9.1976, p. 54	X
23	Direction indicators	Directive 76/759/EEC	L 262, 27.9.1976, p. 71	X
24	Rear registration plate lamps	Directive 76/760/EEC	L 262, 27.9.1976, p. 85	X
25	Headlamps (including bulbs)	Directive 76/761/EEC	L 262, 27.9.1976, p. 96	X
26	Front fog lamps	Directive 76/762/EEC	L 262, 27.9.1976, p. 122	X
27	Towing hooks	Directive 77/389/EEC	L 145, 13.6.1977, p. 41	B
28	Rear fog lamps	Directive 77/538/EEC	L 220, 29.8.1977, p. 60	X
29	Reversing lamps	Directive 77/539/EEC	L 220, 29.8.1977, p. 72	X
30	Parking lamps	Directive 77/540/EEC	L 220, 29.8.1977, p. 83	X
31	Seat-belts and restraint systems	Directive 77/541/EEC	L 220, 29.8.1977, p. 95	A ⁽²⁾ B ⁽⁴⁾
32	Forward vision	Directive 77/649/EEC	L 267, 19.10.1977, p. 1	A
33	Identification of controls, tell-tales and indicators	Directive 78/316/EEC	L 81, 28.3.1978, p. 3	A
34	Defrost/demist	Directive 78/317/EEC	L 81, 28.3.1978, p. 27	C
35	Wash/wipe	Directive 78/318/EEC	L 81, 28.3.1978, p. 49	C
36	Heating system	Directive 2001/56/EC	L 292, 9.11.2001, p. 21	C
37	Wheel guards	Directive 78/549/EEC	L 168, 26.6.1978, p. 45	B
39	CO ₂ emissions/Fuel consumption	Directive 80/1268/EEC	L 375, 31.12.1980, p. 36	A
40	Engine power	Directive 80/1269/EEC	L 375, 31.12.1980, p. 46	C
41	Emissions (Euro IV and V) heavy-duty vehicles with the exception of the whole set of requirements relating to On Board Diagnostics (OBDS)	Directive 2005/55/EC	L 275, 20.10.2005, p. 1	A
44	Masses and dimensions (cars)	Directive 92/21/EEC	L 129, 14.5.1992, p. 1	C
45	Safety glazing	Directive 92/22/EEC	L 129, 14.5.1992, p. 11	X ⁽²⁾ B ⁽⁴⁾
46	Tyres	Directive 92/23/EEC	L 129, 14.5.1992, p. 95	X ⁽²⁾ B ⁽⁴⁾
50	Couplings	Directive 94/20/EC	L 195, 29.7.1994, p. 1	X ⁽²⁾ A ⁽⁴⁾
53	Frontal impact	Directive 96/79/EC	L 18, 21.1.1997, p. 7	N/A
54	Side impact	Directive 96/27/EC	L 169, 8.7.1996, p. 1	N/A

	Subject	Regulatory act reference	Official Journal reference	M ₁
58	Pedestrian protection	Directive 2003/102/EC	L 321, 6.12.2003, p. 15	N/A
59	Recyclability	Directive 2005/64/EC	L 310, 25.11.2005, p 10	N/A ⁽⁵⁾
60	Frontal Protection system	Directive 2005/66/EC	L 309, 25.11.2005, p 37	X ⁽²⁾ A ⁽⁴⁾
61	Air-conditioning system	Directive 2006/40/EC	L 161, 14.6.2006, p. 12	X ⁽²⁾ B ⁽³⁾

⁽¹⁾ Electronic sub-assembly.

⁽²⁾ Component.

⁽³⁾ Vehicle.

⁽⁴⁾ Installation prescriptions.

⁽⁵⁾ However, Article 7 of Directive 2005/64/EC applies.

Key

X: EC type-approval certificate shall be issued; conformity of production shall be ensured.

A: No exemptions permitted except those specified in the regulatory act. Type-approval certificate and type-approval mark are not required. Test reports shall be established by a notified technical service.

B: The technical prescriptions of the regulatory act shall be fulfilled. The tests provided for in the regulatory act shall be performed in their entirety; subject to the agreement of the approval authority, they may be performed by the manufacturer himself; the manufacturer may be allowed to issue the technical report; a type-approval certificate does not have to be issued and type-approval is not required.

C: The manufacturer shall demonstrate to the satisfaction of the approval authority that the essential requirements of the regulatory act are fulfilled.

N/A This regulatory act is not applicable (no requirements).

PART II

List of UNECE regulations recognised as an alternative to directives or regulations mentioned in Part I

Where reference is made to a separate Directive or Regulation in the table of Part I, an approval issued under the following UNECE Regulations to which the Community has acceded as a Contracting Party to the United Nations Economic Commission for Europe "Revised 1958 Agreement" by virtue of Council Decision 97/836/EC ⁽¹⁾, or subsequent Council decisions as referred to in Article 3(3) of that Decision, shall be considered as equivalent to an EC type-approval granted under the relevant separate Directive or Regulation.

Any further amendment of the UNECE Regulations listed below ⁽²⁾ shall also be deemed to be equivalent, subject to the Community Decision as 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
2	Emissions	83	05
	Replacement catalytic converters	103	00
3	Fuel tanks	34	02
	LPG tanks	67	01
	CNG tanks	110	00
	Rear protective device	58	01
5	Steering effort	79	01
6	Door latches and hinges	11	02
7	Audible warning	28	00
8	Indirect vision devices	46	02
9	Braking	13	10
	Braking	13H	00
	Brake linings	90	01
10	Radio interference (electromagnetic compatibility)	10	02
11	Diesel smoke	24	03
12	Interior fittings	21	01
13	Anti-theft	18	03
	Anti-theft and immobiliser	116	00
	Vehicle Alarm Systems	97	01
		116	00
14	Behaviour of steering device under impact	12	03
15	Seat strength	17	07

⁽¹⁾ OJ L 346, 17.12.1997, p. 78.

⁽²⁾ For subsequent amendments, see UNECE TRANS/WP.29/343 in its latest revision.

	Subject	Basic UNECE Regulation number	Series of amendments
	Seat strength (buses and coaches)	80	01
16	Exterior projections	26	03
17	Speedometer	39	00
19	Seat-belt anchorages	14	06
20	Installation of lighting and light signalling devices	48	03
21	Retro reflectors	3	02
22	End-outline/front-position (side)/rear-position (side)/stop lamps	7	02
	Daytime running lamps	87	00
	Side marker lamps	91	00
23	Direction indicators	6	01
24	Rear registration plate lamp	4	00
25	Headlamps (R ₂ and HS ₁)	1	02
25	Headlamps (sealed beam)	5	02
	Headlamps (H ₁ , H ₂ , H ₃ , HB ₃ , HB ₄ , H ₇ , and/or H ₈ , H ₉ , HIR1, HIR2 and/or H ₁₁)	8	05
	Headlamps (H ₄)	20	03
	Headlamps (halogen sealed beam)	31	02
	Filament lamps for use in approved lamp units	37	03
	Headlamps with gas-discharge light sources	98	00
	Gas-discharge light sources for use in approved gas-discharge lamp units	99	00
	Headlamps (asymmetrical passing beam)	112	00
	Adaptative front-lighting systems	123	00
26	Front fog lamps	19	02
28	Rear fog lamps	38	00
29	Reversing lamps	23	00
30	Parking lamps	77	00
31	Seat-belts and restraint systems	16	04
	Child restraints	44	04
32	Front forward field of vision	125	00
33	Identification of controls, tell-tales and indicators	121	00
36	Heating systems	122	00

	Subject	Basic UNECE Regulation number	Series of amendments
38	Head restraints (combined with seats)	17	07
	Head restraints	25	04
39	CO ₂ emissions — Fuel consumption	101	00
40	Engine power	85	00
41	Emissions (Euro IV and V) heavy-duty vehicles	49	04
42	Lateral protection	73	00
45	Safety glazing	43	00
46	Tyres, motor vehicles and their trailers	30	02
	Tyres, commercial vehicles and their trailers	54	00
	Temporary-use spare wheels/tyres	64	01
	Rolling sound	117	01
47	Speed limitation devices	89	00
50	Couplings	55	01
	Close-coupling device	102	00
51	Flammability	118	00
52	Buses and coaches	107	02
	Strength of superstructure (buses and coaches)	66	00
53	Frontal impact	94	01
54	Side impact	95	02
56	Vehicles intended for the transport of dangerous goods	105	04
57	Front under-run protection	93	00

Where the separate directive or regulation contains installation requirements, these apply also to components and separate technical units approved in accordance with the UNECE Regulations.

(*) The numbering of the entries in this table refers to the numbering used in the table of Part I.

ANNEX IV

ANNEX VI

MODELS OF THE TYPE-APPROVAL CERTIFICATE

MODEL A

(to be used for type-approval of a vehicle)

Maximum format: A4 (210 × 297 mm)

EC VEHICLE TYPE-APPROVAL CERTIFICATE

Stamp of type-approval authority

Communication concerning:

- EC type-approval ⁽¹⁾
- extension of EC type-approval ⁽¹⁾
- refusal of EC type-approval ⁽¹⁾
- withdrawal of EC type-approval ⁽¹⁾

Of a type of:

- complete vehicle ⁽¹⁾
- completed vehicle ⁽¹⁾
- incomplete vehicle ⁽¹⁾
- vehicle with complete and incomplete variants ⁽¹⁾
- vehicle with completed and incomplete variants ⁽¹⁾

with regard to Directive 2007/46/EC as last amended by Directive .../.../EC / Regulation (EC) No. .../... ⁽¹⁾

EC type-approval number:

Reason for extension:

SECTION I

- 0.1. Make (trade name of manufacturer):
- 0.2. Type:
 - 0.2.1. Commercial name(s) ⁽²⁾:
- 0.3. Means of identification of type, if marked on the vehicle:
 - 0.3.1. Location of that marking:
- 0.4. Category of vehicle ⁽³⁾:
- 0.5. Name and address of manufacturer of the complete vehicle ⁽¹⁾:

⁽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.A.

Name and address of manufacturer of the base vehicle ⁽¹⁾ ⁽⁴⁾:

Name and address of manufacturer of the latest built stage of the incomplete vehicle ⁽¹⁾ ⁽⁴⁾:

Name and address of manufacturer of the completed vehicle ⁽¹⁾ ⁽⁴⁾:

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

0.9. 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 vehicle(s) described above ((a) sample(s) having been selected by the EC type-approval authority and submitted by the manufacturer as prototype(s) of the vehicle type) and that the attached test results are applicable to the vehicle type.

1. For complete and completed vehicles/variants ⁽¹⁾:

The vehicle type meets/does not meet ⁽¹⁾ the technical requirements of all the relevant regulatory acts as prescribed in Annex IV and Annex XI ⁽¹⁾ ⁽⁴⁾ to Directive 2007/46/EC.

2. For incomplete vehicles/variants ⁽¹⁾:

The vehicle type 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 20 and the validity of the approval is thus limited to dd/mm/yy.

(Place)

(Signature)

(Date)

Attachments: Information package.

Test results (see Annex VIII).

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 pursuant to Articles 20, 22 or 23, it may not bear the heading "EC Vehicle Type-Approval Certificate", except:

- in the case mentioned in Article 20 where the Commission has decided to allow a Member State to grant a type-approval in accordance with this Directive,
- in the case of vehicles of the category M₁, type-approved according to the procedure prescribed in Article 22.

⁽⁴⁾ See side 2.

EC VEHICLE TYPE-APPROVAL CERTIFICATE

Side 2

This EC type-approval is, where incomplete and completed vehicles, variants or versions are concerned, based on the approval(s) for incomplete vehicles listed below:

Stage 1: Manufacturer of the base vehicle:

EC type-approval number:

Dated:

Applicable to variants or versions (as appropriate):

Stage 2: Manufacturer:

EC type-approval number:

Dated:

Applicable to variants or versions (as appropriate):

Stage 3: Manufacturer:

EC 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 vehicle type, variant or version (as appropriate, taking account of the scope and latest amendment to each of the regulatory acts listed below).

Item	Subject	Regulatory act reference	Last amended	Applicable to variant or, if need be, to version

(List only subjects for which an EC type-approval exists.)

In the case of special purpose vehicles, exemptions granted or special provisions applied pursuant to Annex XI and exemptions granted pursuant to Article 20:

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 to which the type of vehicle complies

(to be filled in only in the case of type-approval in accordance with Article 6(3))

Subject	Regulatory act reference (1)	As amended by	Applicable to versions
1. Permissible sound level	Directive 70/157/EEC		
2. Emissions	Directive 70/220/EEC		
2a. Emissions (Euro 5 and 6) light-duty vehicles/access to information	Regulation (EC) No 715/2007		
3. Fuel tanks/Rear protective devices	Directive 70/221/EEC		
4. Rear registration plate space	Directive 70/222/EEC		
5. Steering effort	Directive 70/311/EEC		
6. Door latches and hinges	Directive 70/387/EEC		
7. Audible warning	Directive 70/388/EEC		
8. Rear visibility	Directive 71/127/EEC		
8a. Indirect vision devices	Directive 2003/97/EC		
9. Braking	Directive 71/320/EEC		
10. Radio interference (electromagnetic compatibility)	Directive 72/245/EEC		
11. Diesel smoke	Directive 72/306/EEC		
12. Interior fittings	Directive 74/60/EEC		
13. Anti-theft and immobiliser	Directive 74/61/EEC		
14. Protective steering	Directive 74/297/EEC		
15. Seat strength	Directive 74/408/EEC		
16. Exterior projections	Directive 74/483/EEC		
17. Speedometer and reverse gear	Directive 75/443/EEC		

Subject	Regulatory act reference ⁽¹⁾	As amended by	Applicable to versions
18. Plates (statutory)	Directive 76/114/EEC		
19. Seat-belt anchorages	Directive 76/115/EEC		
20. Installation of lighting and light signalling devices	Directive 76/756/EEC		
21. Retro reflectors	Directive 76/757/EEC		
22. End-outline, front-position (side), rear-position (side), stop, side marker, daytime running lamps	Directive 76/758/EEC		
23. Direction indicators	Directive 76/759/EEC		
24. Rear registration plate lamps	Directive 76/760/EEC		
25. Headlamps (including bulbs)	Directive 76/761/EEC		
26. Front fog lamps	Directive 76/762/EEC		
27. Towing hooks	Directive 77/389/EEC		
28. Rear fog lamps	Directive 77/538/EEC		
29. Reversing lamps	Directive 77/539/EEC		
30. Parking lamps	Directive 77/540/EEC		
31. Seat-belts and restraint systems	Directive 77/541/EEC		
32. Forward vision	Directive 77/649/EEC		
33. Identification of controls, tell-tales and indicators	Directive 78/316/EEC		
34. Defrost/demist	Directive 78/317/EEC		
35. Wash/wipe	Directive 78/318/EEC		
36. Heating systems	Directive 2001/56/EC		
37. Wheel guards	Directive 78/549/EEC		
38. Head restraints	Directive 78/932/EEC		
39. CO ₂ emissions/Fuel consumption	Directive 80/1268/EEC		

Subject	Regulatory act reference ⁽¹⁾	As amended by	Applicable to versions
40. Engine power	Directive 80/1269/EEC		
41. Emissions (Euro IV and V) heavy-duty vehicles.	Directive 2005/55/EC		
42. Lateral protection	Directive 89/297/EEC		
43. Spray-suppression systems	Directive 91/226/EEC		
44. Masses and dimensions (cars)	Directive 92/21/EEC		
45. Safety glazing	Directive 92/22/EEC		
46. Tyres	Directive 92/23/EEC		
47. Speed limitation devices	Directive 92/24/EEC		
48. Masses and dimensions (other than vehicles referred to in item 44)	Directive 97/27/EC		
49. External projections of cabs	Directive 92/114/EEC		
50. Couplings	Directive 94/20/EC		
51. Flammability	Directive 95/28/EC		
52. Buses and coaches	Directive 2001/85/EC		
53. Frontal impact	Directive 96/79/EC		
54. Side impact	Directive 96/27/EC		
56. Vehicles intended for the transport of dangerous goods	Directive 98/91/EC		
57. Front under-run protection	Directive 2000/40/EC		
58. Pedestrian protection	Directive 2003/102/EC		
59. Recyclability	Directive 2005/64/EC		
60. Frontal protection systems	Directive 2005/66/EC		
61. Air-conditioning systems	Directive 2006/40/EC		

⁽¹⁾ Or UNECE Regulations that are considered to be equivalent.

MODEL B

(to be used for type-approval of a system or type-approval of a vehicle with regard to a system)

Maximum format: A4 (210 × 297 mm)

EC TYPE-APPROVAL CERTIFICATE

Stamp of type-approval authority

Communication concerning:

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> — EC type-approval ⁽¹⁾ — extension of EC type-approval ⁽¹⁾ — refusal of EC type-approval ⁽¹⁾ — withdrawal of EC type-approval ⁽¹⁾ | } | of a type of system/type of a vehicle with regard to a system ⁽¹⁾ |
|--|---|--|

with regard to Directive .../.../EC / Regulation (EC) No .../... ⁽¹⁾, as last amended by Directive .../.../EC / Regulation (EC) No .../... ⁽¹⁾

EC type-approval number:

Reason for extension:

SECTION I

- 0.1. Make (trade name of manufacturer):
- 0.2. Type:
 - 0.2.1. Commercial name(s) (if available):
- 0.3. Means of identification of type, if marked on the vehicle ⁽²⁾:
 - 0.3.1. Location of that marking:
- 0.4. Category of vehicle ⁽³⁾:
- 0.5. Name and address of manufacturer:
- 0.8. Name(s) and address(es) of assembly plant(s):
- 0.9. Name and address of the manufacturer's representative (if any):

SECTION II

1. Additional information (where applicable): see Addendum.
2. Technical service responsible for carrying out the tests:
3. Date of test report:

⁽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, Section A.

4. Number of test report:
5. Remarks (if any): see Addendum.
6. Place:
7. Date:
8. Signature:

Attachments: Information package

Test report

*Addendum***to EC 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 vehicle type to comply with this Directive or Regulation
 - 2.1. [...]:
3. Remarks
 - 3.1. [...]:

MODEL C

(to be used for component/separate technical unit type-approval)

Maximum format: A4 (210 × 297 mm)

EC TYPE-APPROVAL CERTIFICATE

Stamp of type-approval authority

Communication concerning:

- EC type-approval ⁽¹⁾
 - extension of EC type-approval ⁽¹⁾
 - refusal of EC type-approval ⁽¹⁾
 - withdrawal of EC type-approval ⁽¹⁾
- } of a type of component/separate technical unit ⁽¹⁾

with regard to Directive .../.../EC / Regulation (EC) No .../... ⁽¹⁾, as last amended by Directive .../.../EC / Regulation (EC) No .../... ⁽¹⁾

EC type-approval number:

Reason for extension:

SECTION I

- 0.1. Make (trade name of manufacturer):
- 0.2. Type:
- 0.3. Means of identification of type, if marked on the component/separate technical unit ⁽¹⁾ ⁽²⁾:
 - 0.3.1. Location of that marking:
- 0.5. Name and address of manufacturer:
- 0.7. In the case of components and separate technical units, location and method of affixing of the EC approval mark:
- 0.8. Name(s) and address(es) of assembly plant(s):
- 0.9. Name and address of the manufacturer's representative (if any):

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

⁽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??).

6. Place:
7. Date:
8. Signature:

Attachments: Information package.

Test report.

*Addendum***to EC 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. [...]: '
-

ANNEX V

ANNEX VII

EC TYPE-APPROVAL CERTIFICATE NUMBERING SYSTEM ⁽¹⁾

1. The EC 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 detailed below. 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 issuing the EC 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;	26	for Slovenia;
7	for Hungary;	27	for Slovakia;
8	for the Czech Republic;	29	for Estonia;
9	for Spain;	32	for Latvia;
11	for the United Kingdom;	34	for Bulgaria;
12	for Austria;	36	for Lithuania;
13	for Luxembourg;	49	for Cyprus;
17	for Finland;	50	for Malta.
18	for Denmark;		

Section 2: The number of the base directive or regulation.

Section 3: The number of the latest amending directive or regulation including implementing acts applicable to the type-approval.

- in the case of whole vehicle type-approvals, this means the latest directive or regulation amending an Article (or Articles) of Directive 2007/46/EC,
- in the case of whole vehicle type-approvals granted in accordance with the procedure described in Article 22, this means the latest directive or regulation amending an Article (or Articles) of Directive 2007/46/EC, 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,
- should a directive or regulation including their implementing acts contain different technical prescriptions to be applied from specific dates, Section 3 shall be followed with an alphabetical character to clearly identify against which technical prescriptions the approval was granted. When 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 as applicable) for EC 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 base directive or regulation.

Section 5: A two-digit sequential number (with leading zeros if applicable) to denote the extension. The sequence shall start from 00 for each base approval number.

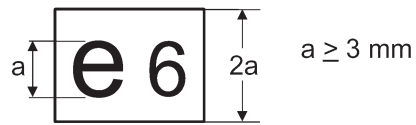
⁽¹⁾ Components and separate technical units shall be marked in accordance with the provisions of the relevant regulatory acts.

2. In the case of a type-approval for a whole vehicle, Section 2 shall be omitted.
However, in the case of a national type-approval granted for vehicles produced in small series pursuant Article 23, Section 3 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 (which as yet no extension) issued by France
 - (a) to Directive 71/320/EEC:
e2*71/320*2002/2078*00003*00
 - (b) to Directive 2005/55/EC:
e2*2005/2055*2006/51 D*00003*00 — in the case of a directive or regulation with different technical prescriptions (see section 3).
 - 4.2. Example of the second extension to the fourth vehicle type-approval issued by the United Kingdom:
e11*2007/2046*0004*02
 - 4.3. Example of a whole vehicle type-approval granted to a vehicle produced in small series issued by Luxembourg, pursuant to Article 22:
e13*KS07/46*0001*00.
 - 4.4. Example of a national type-approval granted to a vehicle produced in small series issued by the Netherlands, pursuant to Article 23:
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 UNECE Regulations listed in Annex IV. Type-approvals granted in accordance with UNECE Regulations shall continue to use the appropriate numbering provided for in the respective Regulations.
-

*Appendix***EC component and separate technical unit type-approval mark**

1. The EC component and separate technical unit type-approval mark shall consist of:
 - 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 EC component or separate technical unit 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	26	For Slovenia
7	For Hungary	27	For Slovakia
8	For the Czech Republic	29	For Estonia
9	For Spain	32	For Latvia
11	For the United Kingdom	34	For Bulgaria
12	For Austria	36	For Lithuania
13	For Luxembourg	49	For Cyprus
17	For Finland	50	For Malta
18	For Denmark		
 - 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 major technical 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. This further information is 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.
-

*Addendum to appendix 1***Example of a component or separate technical unit type-approval mark**

01 0004 

Legend: the above component type-approval was issued 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 VI

ANNEX XI

LIST OF REGULATORY ACTS SETTING THE REQUIREMENTS FOR THE PURPOSE OF EC TYPE-APPROVAL OF SPECIAL PURPOSE VEHICLES

Appendix 1

Motor-caravans, ambulances and hearses

Item	Subject	Regulatory act reference	$M_1 \leq 2\,500$ (!) kg	$M_1 > 2\,500$ (!) kg	M_2	M_3
1	Permissible sound level	Directive 70/157/EEC	H	G + H	G + H	G + H
2	Emissions	Directive 70/220/EEC	Q	G + Q	G + Q	G + Q
2a	Emissions (Euro 5 and 6) light-duty vehicles/access to information	Regulation (EC) No 715/2007	Q	G + Q	G + Q	
3	Fuel tanks/rear protective devices	Directive 70/221/EEC	F	F	F	F
4	Rear registration plate space	Directive 70/222/EEC	X	X	X	X
5	Steering effort	Directive 70/311/EEC	X	G	G	G
6	Door latches and hinges	Directive 70/387/EEC	B	G + B		
7	Audible warning	Directive 70/388/EEC	X	X	X	X
8	Devices for indirect vision	2003/97/EC	X	G	G	G
9	Braking	Directive 71/320/EEC	X	G	G	G
10	Radio interference (electromagnetic compatibility)	Directive 72/245/EEC	X	X	X	X
11	Diesel smoke	Directive 72/306/EEC	H	H	H	H
12	Interior fittings	Directive 74/60/EEC	C	G + C		
13	Anti-theft and immobiliser	Directive 74/61/EEC	X	G	G	G
14	Protective steering	Directive 74/297/EEC	X	G		
15	Seat strength	Directive 74/408/EEC	D	G + D	G + D	G + D
16	Exterior projections	Directive 74/483/EEC	X for the cab; A for the remaining part	G for the cab; A for the remaining part		

Item	Subject	Regulatory act reference	M ₁ ≤ 2 500 (t) kg	M ₁ > 2 500 (t) kg	M ₂	M ₃
17	Speedometer and reverse gear	Directive 75/443/EEC	X	X	X	X
18	Plates (statutory)	Directive 76/114/EEC	X	X	X	X
19	Seat-belt anchorages	Directive 76/115/EEC	D	G + L	G + L	G + L
20	Installation of lighting and light signalling devices	Directive 76/756/EEC	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
21	Retro reflectors	Directive 76/757/EEC	X	X	X	X
22	End-outline, front-side, rear-side, stop, day time running, side-marker lamps	Directive 76/758/EEC	X	X	X	X
23	Direction indicators	Directive 76/759/EEC	X	X	X	X
24	Rear registration plate lamps	Directive 76/760/EEC	X	X	X	X
25	Headlamps (including bulbs)	Directive 76/761/EEC	X	X	X	X
26	Front fog lamps	Directive 76/762/EEC	X	X	X	X
27	Towing hooks	Directive 77/389/EEC	E	E	E	E
28	Rear fog lamps	Directive 77/538/EEC	X	X	X	X
29	Reversing lamps	Directive 77/539/EEC	X	X	X	X
30	Parking lamps	Directive 77/540/EEC	X	X	X	X
31	Seat-belts and restraint systems	Directive 77/541/EEC	D	G + M	G + M	G + M
32	Forward vision	Directive 77/649/EEC	X	G		
33	Identification of controls, tell-tales and indicators	Directive 78/316/EEC	X	X	X	X
34	Defrost/demist	Directive 78/317/EEC	X	G + O	O	O
35	Wash/wipe	Directive 78/318/EEC	X	G + O	O	O
36	Heating systems	Directive 2001/56/EC	X	X	X	X
37	Wheel guards	Directive 78/549/EEC	X	G		

Item	Subject	Regulatory act reference	$M_1 \leq 2\,500$ ⁽¹⁾ kg	$M_1 > 2\,500$ ⁽¹⁾ kg	M_2	M_3
38	Head restraints	Directive 78/932/EEC	D	G + D		
39	CO ₂ emissions/fuel consumption	Directive 80/1268/EEC	N/A	N/A		
40	Engine power	Directive 80/1269/EEC	X	X	X	X
41	Emissions (Euro IV and V) heavy-duty vehicles	Directive 2005/55/EC	H	G + H	G + H	G + H
44	Masses and dimensions (cars)	Directive 92/21/EEC	X	X		
45	Safety glazing	Directive 92/22/EEC	J	G + J	G + J	G + J
46	Tyres	Directive 92/23/EEC	X	G	G	G
47	Speed limitation devices	Directive 92/24/EEC				X
48	Masses and dimensions (other than vehicles referred to in item 44)	Directive 97/27/EC			X	X
50	Couplings	Directive 94/20/EC	X	G	G	G
51	Flammability	Directive 95/28/EC				G for the cab; X for the remaining part
52	Buses and coaches	Directive 2001/85/EC			A	A
53	Front impact	Directive 96/79/EC	N/A	N/A		
54	Side impact	Directive 96/27/EC	N/A	N/A		
58	Pedestrian protection	Directive 2003/102/EC	X			
59	Recyclability	Directive 2005/64/EC	N/A	N/A		
60	Frontal protection system	Directive 2005/66/EC	X	X ⁽²⁾		
61	Air-conditioning system	Directive 2006/40/EC	X	X		

⁽¹⁾ Technically permissible maximum laden mass.

⁽²⁾ Not exceeding 3,5 tonnes maximum laden mass.

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
46	Tyres	Directive 92/23/EEC	A	A	A	A	A	A	A	A	A	A
47	Speed limitation devices	Directive 92/24/EEC		X	X		X	X				
48	Masses and dimensions (other than vehicles referred to in item 44)	Directive 97/27/EC		X	X	X	X	X	X	X	X	X
49	External projections of cabs	Directive 92/114/EEC				A	A	A				
50	Couplings	Directive 94/20/EC	X	X	X	X	X	X	X	X	X	X
51	Flammability	Directive 95/28/EC			X							
52	Buses and coaches	Directive 2001/85/EC		A	A							
53	Front impact	Directive 96/79/EC	N/A									
54	Side impact	Directive 96/27/EC	N/A			N/A						
56	Vehicles intended for the transport of dangerous goods	Directive 98/91/EC				X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾	X ⁽¹⁾
57	Front under-run protection	Directive 2000/40/EC					X	X				
58	Pedestrian protection	Directive 2003/102/EC	N/A			N/A						
59	Recyclability	Directive 2005/64/EC	N/A			N/A						
60	Frontal protection system	Directive 2005/66/EC	N/A			N/A						
61	Air-conditioning system	Directive 2006/40/EC	X			Z						

(¹) The requirements of Directive 98/91/EC are only applicable when the manufacturer applies for the EC type-approval of a vehicle intended for the transport of dangerous goods.

Appendix 3

Wheelchair accessible vehicles

Item	Subject	Regulatory act reference	M ₁
1	Permissible sound level	Directive 70/157/EEC	X
2	Emissions	Directive 70/220/EEC	G + W ₁
2a	Emissions (Euro 5 and 6) light-duty vehicles/ access to information	Regulation (EC) No 715/2007	G + W ₁
3	Fuel tanks/rear protective devices	Directive 70/221/EEC	X + W ₂
4	Rear registration plate space	Directive 70/222/EEC	X
5	Steering effort	Directive 70/311/EEC	X
6	Door latches and hinges	Directive 70/387/EEC	X
7	Audible warning	Directive 70/388/EEC	X
8	Indirect vision devices	Directive 2003/97/EEC	X
9	Braking	Directive 71/320/EEC	X
10	Radio interference (electromagnetic compatibility)	Directive 72/245/EEC	X
11	Diesel smoke	Directive 72/306/EEC	X
12	Interior fittings	Directive 74/60/EEC	X
13	Anti-theft and immobiliser	Directive 74/61/EEC	X
14	Protective steering	Directive 74/297/EEC	X
15	Seat strength	Directive 74/408/EEC	X + W ₃
16	Exterior projection	Directive 74/483/EEC	X + W ₄
17	Speedometer and reverse gear	Directive 75/443/EEC	X
18	Plates (statutory)	Directive 76/114/EEC	X
19	Seat-belt anchorages	Directive 76/115/EEC	X + W ₅

Item	Subject	Regulatory act reference	M ₁
20	Installation of lighting and light signalling devices	Directive 76/756/EEC	X
21	Reflex reflectors	Directive 76/757/EEC	X
22	End-outline, front position (side), rear-position (side), stop, side marker, daytime running lamps	Directive 76/758/EEC	X
23	Direction indicators	Directive 76/759/EEC	X
24	Rear registration plate lamps	Directive 76/760/EEC	X
25	Headlamps (including bulbs)	Directive 76/761/EEC	X
26	Front fog lamps	Directive 76/762/EEC	X
27	Towing hooks	Directive 77/389/EEC	X
28	Rear fog lamps	Directive 77/538/EEC	X
29	Reversing lamps	Directive 77/539/EEC	X
30	Parking lamps	Directive 77/540/EEC	X
31	Seat-belts and restraint systems	Directive 77/541/EEC	X + W ₆
32	Forward vision	Directive 77/649/EEC	X
33	Identification of controls, tell-tales and indicators	Directive 78/316/EEC	X
34	Defrost/demist	Directive 78/317/EEC	X
35	Wash/wipe	Directive 78/318/EEC	X
36	Heating systems	Directive 2001/56/EC	X
37	Wheel guards	Directive 78/549/EEC	X
39	CO ₂ emissions/fuel consumption	Directive 80/1268/EEC	X + W ₇
40	Engine power	Directive 80/1269/EEC	X
41	Diesel emissions	Directive 2005/55/EC	X

Item	Subject	Regulatory act reference	M ₁
44	Masses and dimensions(cars)	Directive 92/21/EEC	X + W ₈
45	Safety glazing	Directive 92/22/EEC	X
46	Tyres	Directive 92/23/EEC	X
50	Couplings	Directive 94/20/EC	X
53	Frontal impact	Directive 96/79/EC	X + W ₉
54	Side impact	Directive 96/27/EC	X + W ₁₀
58	Pedestrian protection	Directive 2003/102/EC	X
59	Recyclability	Directive 2005/64/EC	N/A
60	Frontal protection system	Directive 2005/66/EC	X
61	Air-conditioning systems	Directive 2006/40/EC	X

Item	Subject	Regulatory act reference	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄
21	Retro reflectors	Directive 76/757/EEC	X	X	X	X	X	X	X	X	X
22	End-outline, front-side, rear-side, stop, day time running, side-marker lamps	Directive 76/758/EEC	X	X	X	X	X	X	X	X	X
23	Direction indicators	Directive 76/759/EEC	X	X	X	X	X	X	X	X	X
24	Rear registration plate lamps	Directive 76/760/EEC	X	X	X	X	X	X	X	X	X
25	Headlamps (including bulbs)	Directive 76/761/EEC	X	X	X	X	X				
26	Front fog lamps	Directive 76/762/EEC	X	X	X	X	X				
27	Towing hooks	Directive 77/389/EEC	A	A	A	A	A				
28	Rear fog lamps	Directive 77/538/EEC	X	X	X	X	X	X	X	X	X
29	Reversing lamps	Directive 77/539/EEC	X	X	X	X	X	X	X	X	X
30	Parking lamps	Directive 77/540/EEC	X	X	X	X	X				
31	Seat-belts and restraint systems	Directive 77/541/EEC	D	D	D	D	D				
33	Identification of controls, tell-tales and indicators	Directive 78/316/EEC	X	X	X	X	X				
34	Defrost/demist	Directive 78/317/EEC	O	O	O	O	O				
35	Wash/wipe	Directive 78/318/EEC	O	O	O	O	O				
36	Heating systems	Directive 2001/56/EC	X	X	X	X	X	X	X	X	X
40	Engine power	Directive 80/1269/EEC	X	X	X	X	X				
41	Emissions (Euro IV and V) heavy-duty vehicles	Directive 2005/55/EC	H	H	H	H	H				
42	Lateral protection	Directive 89/297/EEC				X	X			X	X
43	Spray suppression systems	Directive 91/226/EEC				X	X			X	X
45	Safety glazing	Directive 92/22/EEC	J	J	J	J	J	J	J	J	J
46	Tyres	Directive 92/23/EEC	X	X	X	X	X	X	X	X	X
47	Speed limitation devices	Directive 92/24/EEC	X	X		X	X				

Item	Subject	Regulatory act reference	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄
48	Masses and dimensions	Directive 97/27/EC	X	X	X	X	X	X	X	X	X
49	External projections of cabs	Directive 92/114/EEC			X	X	X				
50	Couplings	Directive 94/20/EC	X	X	X	X	X	X	X	X	X
51	Flammability	Directive 95/28/EC		X							
52	Buses and coaches	Directive 2001/85/EC	X	X							
54	Side impact	Directive 96/27/EC			A						
56	Vehicles intended for the transport of dangerous goods	Directive 98/91/EC				X	X	X	X	X	X
57	Front under-run protection	Directive 2000/40/EC				X	X				
58	Pedestrian protection	Directive 2003/102/EC			N/A						
59	Recyclability	Directive 2005/64/EC			N/A						
60	Frontal protection system	Directive 2005/66/EC			A						
61	Air-conditioning system	Directive 2006/40/EC			Z						

Appendix 5

Mobile cranes

Item	Subject	Regulatory act reference	Mobile crane of category N ₃
1	Permissible sound level	Directive 70/157/EEC	T
2	Emissions	Directive 70/220/EEC	X
2a	Emissions (Euro 5 and 6) light-duty vehicles/ access to information	Regulation (EC) No 715/2007	N/A
3	Fuel tanks/rear protective devices	Directive 70/221/EEC	X
4	Rear registration plate space	Directive 70/222/EEC	X
5	Steering effort	Directive 70/311/EEC	X crab steering allowed
6	Door latches and hinges	Directive 70/387/EEC	A
7	Audible warning	Directive 70/388/EEC	X
8	Indirect vision devices	Directive 2003/97/EC	X
9	Braking	Directive 71/320/EEC	U
10	Radio interference (electromagnetic compatibility)	Directive 72/245/EEC	X
11	Diesel smoke	Directive 72/306/EEC	X
12	Interior fittings	Directive 74/60/EEC	X
13	Anti-theft and immobiliser	Directive 74/61/EEC	X
15	Seat strength	Directive 74/408/EEC	D
17	Speedometer and reverse gear	Directive 75/443/EEC	X
18	Plates (statutory)	Directive 76/114/EEC	X
19	Seat-belt anchorages	Directive 76/115/EEC	D
20	Installation of lighting and light signalling devices	Directive 76/756/EEC	A + Y
21	Reflex reflectors	Directive 76/757/EEC	X

Item	Subject	Regulatory act reference	Mobile crane of category N ₃
22	End-outline, front position (side), rear-position (side), stop, side marker, daytime running lamps	Directive 76/758/EEC	X
23	Direction indicators	Directive 76/759/EEC	X
24	Rear registration plate lamps	Directive 76/760/EEC	X
25	Headlamps (including bulbs)	Directive 76/761/EEC	X
26	Front fog lamps	Directive 76/762/EEC	X
27	Towing hooks	Directive 77/389/EEC	A
28	Rear fog lamps	Directive 77/538/EEC	X
29	Reversing lamps	Directive 77/539/EEC	X
30	Parking lamps	Directive 77/540/EEC	X
31	Seat-belts and restraint systems	Directive 77/541/EEC	D
33	Identification of controls, tell-tales and indicators	Directive 78/316/EEC	X
34	Defrost/demist	Directive 78/317/EEC	O
35	Wash/wipe	Directive 78/318/EEC	O
36	Heating systems	Directive 2001/56/EC	X
40	Engine power	Directive 80/1269/EEC	X
41	Emissions (Euro IV and V) — heavy-duty vehicles	Directive 2005/55/EC	V
42	Lateral protection	Directive 89/297/EEC	X
43	Spray-suppression systems	Directive 91/226/EEC	X
45	Safety glazing	Directive 92/22/EEC	J
46	Tyres	Directive 92/23/EEC	A (provided that the requirements in ISO 10571-1995 (tyres for mobile cranes and similar specialised machines) or ETRTO Standards Manual are fulfilled.

Item	Subject	Regulatory act reference	Mobile crane of category N ₃
47	Speed limitation devices	Directive 92/24/EEC	X
48	Masses and dimensions	Directive 97/27/EC	X
49	External projections of cabs	Directive 92/114/EEC	X
50	Couplings	Directive 94/20/EC	X
57	Front under-run protection	Directive 2000/40/EC	X

Meaning of letters:

- X No exemptions except those specified in the regulatory act.
- N/A This regulatory act is not applicable to this vehicle (no requirements).
- A Exemption permitted where special purposes make it impossible to fully comply. The manufacturer shall demonstrate this to the satisfaction of the type-approval authority that the vehicle cannot meet the requirements due to its special purpose.
- B Application limited to doors giving access to the seats designated for normal use when the vehicle is travelling on the 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 when the vehicle is travelling on the road and also limited to the head impact zone as defined in Directive 74/60/EEC.
- D Application limited to seats designated for normal use when the vehicle is travelling on the road. Seats which are not designated for use when the vehicle is travelling on the road shall be clearly identified to users either by means of a pictogram or a sign with an appropriate text.
- E Front only.
- F Modification to the routing and length of the refuelling duct and re-positioning of the tank inboard is permissible.
- G Requirements according to the category of the base/incomplete vehicle (the chassis of which was used to build the special purpose vehicle). In the case of incomplete/completed vehicles, it is acceptable that the requirements for vehicles of the corresponding category N (based on max. mass) are satisfied.
- H Modification of exhaust system length after the last silencer not exceeding 2 m is permissible without any further test.
- 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 permitted.
- L Application limited to seats designated for normal use when the vehicle is travelling on the road. At least anchorages for lap belts are required in the rear seating positions. Seats which are designated for use when the vehicle is travelling on the road shall be clearly identified to users either by means of a pictogram or a sign with an appropriate text.
- M Application limited to seats designated for normal use when the vehicle is travelling on the road. At least lap belts are required in all rear seating positions. Seats which are not designated for use when the vehicle is travelling on the road shall be clearly identified to users either by means of a pictogram or a sign with an appropriate text.
- N Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected.
- O The vehicle shall be fitted with an adequate system in the front.
- Q Modification of exhaust system length after the last silencer not exceeding 2 m is permissible without any further test. An EC 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 %, also the "A" pillar obstruction angle is not more than 10°.

- T Test to be performed only with the complete/completed vehicle. The vehicle can be tested according to Directive 70/157/EEC as last amended by 1999/101/EC. Concerning item 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 shall comply with all the requirements laid down by Directive 71/320/EEC. Derogations are admitted for vehicles having more than 4 axles, provided that:
- they are justified by the particular construction
 - all the braking performances, related to parking, service and secondary braking laid down by Directive 71/320/EEC are fulfilled.
- V The compliance with Directive 97/68/EC can be accepted.
- W₁ Requirements shall be complied with, but modification in the exhaust system is permitted without any further test provided the emission control devices including particulate filters (if any) are not affected. No new evaporative test shall be required on the modified vehicle on condition that the evaporative control devices are kept as fitted by the manufacturer of the base vehicle.
- An EC type approval issued to the most representative base vehicle remains valid irrespective of change in the reference mass.
- W₂ Requirements shall be complied with, but modification of the routing, length of the refuelling duct, fuel hoses and fuel vapour pipes is permitted. Re-location of the original fuel tank is permitted.
- W₃ A wheelchair location is considered as a seating position. For each wheelchair sufficient space shall be provided. The longitudinal plane of the special area shall be parallel to the longitudinal plane of the vehicle.
- Appropriate information shall be made available to the vehicle owner that a wheelchair used as a seat in the vehicle shall be capable of withstanding the forces transmitted by the tie-down mechanism during the various driving conditions.
- Appropriate adaptations may be made to the seats of the vehicle provided that their anchorages, mechanisms and head restraints guarantee the same level of performance provided for in the Directive.
- W₄ Compliance with Directive shall be required for the boarding aids when in the resting position.
- W₅ Each wheelchair location shall be fitted with an integrated restraint system which consists of a restraint system for the wheelchair and a restraint system for the wheelchair user.
- Anchorages for restraint systems shall resist forces as prescribed in Directive 76/115/EEC and in Standard ISO 10542-1: 2001.
- Webbings and hardware intended to secure the wheelchair (tie-down mechanisms) shall meet the requirements of Directive 77/541/EEC and of the relevant part of Standard ISO 10542.
- Tests shall be performed by the technical service which has been appointed for testing and checking in accordance with the Directives referred to above. The criteria are those included in these Directives. Tests shall be performed with the surrogate wheelchair described in Standard ISO 10542.
- W₆ When, due to the conversion, anchorage points for the safety belts need to be moved outside the tolerance provided for in point 2.7.8.1 of Annex I to Directive 77/541/EEC, the technical service shall check whether the alteration constitutes a worst case or not. If that is the case, the test provided for in Annex VII to Directive 77/541/EEC shall be performed. Extension to the EC type-approval does not need to be issued.
- W₇ A new measurement relating to CO₂ emissions does not need to be performed when, in application of the provisions under W₁, no fresh tests have to be performed with regard to tail pipe emissions.
- W₈ For the purposes of calculations, the mass of the wheelchair including the user shall be assumed to be 100 kg. The mass shall be concentrated at the H point of the three-dimensional machine.
- The technical service shall also consider the possibility to use electric wheelchair(s), the mass of which, including the user, is assumed to be 250 kg. Any limitation in the passenger capacity resulting from the use of electric wheelchair(s) shall be recorded in the type-approval certificate and an appropriate language thereto shall be included in the certificate of conformity.
- W₉ No new test shall be required on the modified vehicle on condition that the front part of the chassis located in front of the R point of the driver is not affected by the conversion of the vehicle and no part of the supplementary restraint system (air-bag(s)) has been removed or deactivated.
- W₁₀ No new test shall be required on the modified vehicle on condition that the side reinforcements have not been altered and no part of the supplementary restraint system (side air-bag(s)) has been removed or deactivated.
- Y Provided that all mandatory lighting devices are installed.
- Z Only for vehicles of category N₁, class I as described in the first table in point 5.3.1.4 of Annex I to Directive 70/220/EEC.

ANNEX VII

'ANNEX XV

LIST OF THE REGULATORY ACTS FOR WHICH A MANUFACTURER MAY BE DESIGNATED AS TECHNICAL SERVICE

	Subject	Regulatory act reference	
		Directive or Regulation	Equivalent UNECE Regulation (*)
46.	Tyres	Directive 92/23/EEC	30, 54, 117
61.	Air-conditioning system	Directive 2006/40/EC	—

(*) See Annex IV Part II.