ANNEX I

Complete list of information for the purpose of EC type-approval of vehicles

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

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

If the systems, components or separate technical units have electronic controls, information concerning their performance must be supplied.

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

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/component/separate technical unit ([b]) ([1]):

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. 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):

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 double 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) ([z]):

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 ([e]) (in kg and mm) (Refer to drawing where applicable)

2.1. Wheel base(s) (fully loaded) ([f]):

2.1.1. In the case of semi-trailers

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

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

2.1.1.3. Semi-trailer special wheelbase (as defined in Section 7.6.1.2 of Annex I to Directive 97/27/EC):

2.2. In the case of semi-trailer towing vehicles

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

2.2.2. Maximum height of the fifth wheel (standardised) ([h]):

2.3. Axle track(s) and width(s):

2.3.1. Track of each steered axle ([i]):

2.3.2. Track of all other axles ([i]):

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 ([j]):

2.4.1.1.1. Maximum permissible length:

2.4.1.1.2. Minimum permissible length:

2.4.1.2. Width ([k]):

2.4.1.2.1. Maximum permissible width:

2.4.1.2.2. Minimum permissible width:

2.4.1.3. Height (in running order) ([l]) (for suspensions adjustable for height, indicate normal running position):

2.4.1.4. Front overhang ([m]):

2.4.1.4.1. Approach angle ([na]): … degrees.

2.4.1.5. Rear overhang ([n]):

2.4.1.5.1. Departure angle ([nb]): … degrees.

2.4.1.5.2. Minimum and maximum permissible overhang of the coupling point ([nd]):

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 ([nc]): … 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 ([j]):

2.4.2.1.1. Length of the loading area:

2.4.2.2. Width ([k]):

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) ([l]) (for suspensions adjustable for height, indicate normal running position):

2.4.2.4. Front overhang ([m]):

2.4.2.4.1. Approach angle ([na]): … degrees.

2.4.2.5. Rear overhang ([n]):

2.4.2.5.1. Departure angle ([nb]): … degrees.

2.4.2.5.2. Minimum and maximum permissible overhang of the coupling point ([nd]):

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 ([nc]): … 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 ([j]):

2.4.3.2. Width ([k]):

2.4.3.3. Nominal height (in running order) ([l]) 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 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) ([o]) (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 ([y]) (*):

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 (*):

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 ([p]) to the wheel base:

2.11.3.2. Maximum V-value: … kN.

2.11.4. Technically permissible maximum mass of the combination (*):

2.11.5. Vehicle is/is not ([1]) 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. Swept path:

2.14. Engine power/maximum mass ratio: … kW/kg.

2.14.1. Engine power/technically permissible maximum laden mass of the combination ratio (as defined in Section 7,10 of Annex I to Directive 97/27/EC): … kW/kg.

2.15. Hill-starting ability (solo 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 ([#])):

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 ([#])):

2.16.3. Intended registration/in service maximum permissible mass on each axle group (several entries possible for each technical configuration ([#])):

2.16.4. Intended registration/in service maximum permissible towable mass (several entries possible for each technical configuration ([#])):

2.16.5. Intended registration/in service maximum permissible mass of the combination (several entries possible for each technical configuration ([#])):

3. POWER PLANT ([q]) (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 ([+]))

3.1. Manufacturer:

3.1.1. Manufacturer's engine code as marked on the engine:

3.2. Internal combustion engine

3.2.1. Specific engine information

3.2.1.1. Working principle: positive ignition/compression ignition, four stroke/two stroke ([1])

3.2.1.2. Number and arrangement of cylinders:

3.2.1.2.1. Bore ([r]): … mm

3.2.1.2.2. Stroke ([r]): … mm

3.2.1.2.3. Firing order:

3.2.1.3. Engine capacity ([s]): … cm^3

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 ([t]): … 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 ([t]): … Nm at … min^{-1} (manufacturer's declared value)

3.2.2. Fuel: Diesel oil/Petrol/LPG/NG/Ethanol ([1]) …

3.2.2.1. RON, leaded:

3.2.2.2. RON, unleaded:

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

3.2.3. Fuel tank(s)

3.2.3.1. Service fuel tank(s)

3.2.3.1.1. Number, capacity, 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, capacity, 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])

3.2.4.1.1. Make(s):

3.2.4.1.2. Type(s):

3.2.4.1.3. Number fitted:

3.2.4.1.4. Adjustments ([2])

3.2.4.1.4.1.	Jets: …	Or the curve of fuel delivery plotted against the air flow and settings required to keep to the curve
3.2.4.1.4.2.	Venturis: …	
3.2.4.1.4.3.	Float-chamber level: …	
3.2.4.1.4.4.	Mass of float: …	
3.2.4.1.4.5.	Float needle: …	

3.2.4.1.5. Cold start system: manual/automatic ([1])

3.2.4.1.5.1. Operating principle(s):

3.2.4.1.5.2. Operating limits/settings ([1]) ([2])

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]): … mm^3/stroke or cycle at a pump speed of: … min^{-1} or, alternatively, a characteristic diagram:

3.2.4.2.3.4. 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. Cut-off point under load: … min^{-1}

3.2.4.2.4.2.2. Cut-off point without load: … min^{-1}

3.2.4.2.5. Injection piping

3.2.4.2.5.1. Length: … mm

3.2.4.2.5.2. Internal diameter: … mm

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 control unit

3.2.4.2.9.1. Make(s):

3.2.4.2.9.2. Description of the system:

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 ([1]))/direct injection/other (specify) ([1])

3.2.4.3.2. Make(s):

3.2.4.3.3. Type(s):

3.2.4.3.4. System description

3.2.4.3.4.1.	Type or number of the control unit: …	In the case of systems other than continuous injection give equivalent details.
3.2.4.3.4.2.	Type of fuel regulator: …	
3.2.4.3.4.3.	Type of air-flow sensor: …	
3.2.4.3.4.4.	Type of fuel distributor: …	
3.2.4.3.4.5.	Type of pressure regulator: …	
3.2.4.3.4.6.	Type of micro switch: …	
3.2.4.3.4.7.	Type of idling adjustment screw: …	
3.2.4.3.4.8.	Type of throttle housing: …	
3.2.4.3.4.9.	Type of water temperature sensor: …	

3.2.4.3.4.10. Type of air temperature sensor: …

3.2.4.3.4.11. Type of air temperature switch: …

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

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

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 ([2]):

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

3.2.6.6. Contact-point gap ([2]): … mm

3.2.6.7. Dwell-angle ([2]): … degrees

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. Blower: 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])

3.2.8.3. Intake depression at rated engine speed and at 100 % load

minimum allowable: … kPa

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: … kPa

3.2.9.4. Exhaust silencer(s): For front, centre, rear silencer: construction, type, marking; 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:

3.2.10. 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:

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 anti-pollution 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:

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])

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

3.2.12.2.2.1. Type:

3.2.12.2.2.2. Location:

3.2.12.2.2.3. Control range:

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: yes/no ([1])

3.2.12.2.4.1. Characteristics (flow rate, etc.):

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: … grams

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: yes/no ([1])

3.2.12.2.6.1. Dimensions, shape and capacity of the particulate trap:

3.2.12.2.6.2. Type and 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:

3.2.12.2.7. 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 ([1])

3.2.12.2.7.3.1.1. Catalyst monitoring ([1]):

3.2.12.2.7.3.1.2. Misfire detection ([1]):

3.2.12.2.7.3.1.3. Oxygen sensor monitoring ([1]):

3.2.12.2.7.3.1.4. Other components monitored by the OBD system ([1]):

3.2.12.2.7.3.2. Compression-ignition engines ([1]):

3.2.12.2.7.3.2.1. Catalyst monitoring ([1]):

3.2.12.2.7.3.2.2. Particulate trap monitoring ([1]):

3.2.12.2.7.3.2.3. Electronic fuelling system monitoring ([1]):

3.2.12.2.7.3.2.4. Other components monitored by the OBD system ([1]):

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):

3.2.12.2.8. Other systems (description and operation):

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

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. EC type-approval number according to Directive 70/221/EEC (when the Directive will be amended to cover tanks for gaseous fuels.):

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. EC type-approval number according to Directive 70/221/EEC (when the Directive will be amended to cover tanks for gaseous fuels):

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:

3.3. 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. Other engines or motors or combinations thereof (particulars regarding the parts of such engines or motors):

3.5. CO_2 emissions/fuel consumption ([u]) (manufacturer's declared value)

3.5.1. CO_2 mass emissions

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

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

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

3.5.2. Fuel consumption

3.5.2.1. Fuel consumption (urban conditions): … l/100 km/m^3/100 km ([1])

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

3.5.2.3. Fuel consumption (combined): … l/100 km/m^3/100 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: … K

3.6.4. Fuel temperature

minimum: … K

maximum: … K

3.6.5. Lubricant temperature

minimum: … K

maximum: … K

3.7. Engine-driven equipment

Maximum permissible power absorbed by the engine-driven equipment as specified in and under the operating conditions of Directive 80/1269/EEC, Annex I, item 5.1.1, at each engine speed as defined in item 4.1 in Annex III to Directive 88/77/EEC

3.7.1. Idling: … kW

3.7.2. Intermediate: … kW

3.7.3. Rated: … kW

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):

3.9. GAS FUELLED ENGINES (In the case of systems laid-out in a different manner, supply equivalent information).

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

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

3.9.2.1. Make(s):

3.9.2.2. Type(s):

3.9.2.3. Number of pressure reduction stages:

3.9.2.4. Pressure in final stage

minimum: … kPa

maximum: … kPa

3.9.2.5. Number of main adjustment points:

3.9.2.6. Number of idle adjustment points:

3.9.2.7. EC type-approval number according to …/…/EC:

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

3.9.3.1. Mixture strength regulation:

3.9.3.2. System description and/or diagram and drawings:

3.9.3.3. EC type-approval number according to …/…/EC:

3.9.4. Mixing unit

3.9.4.1. Number:

3.9.4.2. Make(s):

3.9.4.3. Type(s):

3.9.4.4. Location:

3.9.4.5. Adjustment possibilities:

3.9.4.6. EC type-approval number according to …/…/EC:

3.9.5. Inlet manifold injection

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

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

3.9.5.3. Injection equipment

3.9.5.3.1. Make(s):

3.9.5.3.2. Type(s):

3.9.5.3.3. Adjustment possibilities:

3.9.5.3.4. EC type-approval number according to …/…/EC:

3.9.5.4. Supply pump (if applicable)

3.9.5.4.1. Make(s):

3.9.5.4.2. Type(s):

3.9.5.4.3. EC type-approval number according to …/…/EC:

3.9.5.5. Injector(s)

3.9.5.5.1. Make(s):

3.9.5.5.2. Type(s):

3.9.5.5.3. EC type-approval number according to …/…/EC:

3.9.6. Direct injection

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

3.9.6.1.1. Make(s):

3.9.6.1.2. Type(s):

3.9.6.1.3. Injection timing:

3.9.6.1.4. EC type-approval number according to …/…/EC:

3.9.6.2. Injector(s)

3.9.6.2.1. Make(s):

3.9.6.2.2. Type(s):

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

3.9.6.2.4. EC type-approval number according to …/…/EC:

3.9.7. Electronic control unit (ECU)

3.9.7.1. Make(s):

3.9.7.2. Type(s):

3.9.7.3. Adjustment possibilities:

3.9.8. NG fuel-specific equipment

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

3.9.8.1.1. Fuel composition:

methane (CH_4): basis: … %mole min. … %mole max. … %mole

ethane (C_2H_6): basis: … %mole min. … %mole max. … %mole

propane (C_3H_8): basis: … %mole min. … %mole max. … %mole

butane (C_4H_{10}): basis: … %mole min. … %mole max. … %mole

C_5/C_5+: basis: … %mole min. … %mole max. … %mole

oxygen (O_2): basis: … %mole min. … %mole max. … %mole

inert (N_2, He, etc.): basis: … %mole min. … %mole max. … %mole

3.9.8.1.2. Injector(s)

3.9.8.1.2.1. Make(s):

3.9.8.1.2.2. Type(s):

3.9.8.1.3. Others (if applicable): …

3.9.8.1.4. Fuel temperature

minimum: … K

maximum: … K

at pressure regulator final stage for gas fuelled engines.

3.9.8.1.5. Fuel pressure

minimum: … kPa

maximum: … kPa

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

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

4. TRANSMISSION ([v])

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 (type):

4.4.1. 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			

4.7. Maximum vehicle speed (in km/h) ([W]):

4.8. Speedometer (in the case of tachograph give approval mark only)

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. 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:

6.3. 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. Tyre/wheel combination(s) (for tyres indicate size designation, minimum load-capacity index, minimum speed category symbol; for tyres of category Z intended to be fitted on vehicles whose maximum speed exceeds 300 km/h equivalent information shall be provided; 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.

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

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

6.6.5. Brief description of temporary use spare unit (if any):

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 Annex I, item 1,6 to Directive 71/320/EEC) with a drawing (e.g. drums or discs, wheels braked, connection to braked wheels, 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 following braking systems (as defined in Annex I, item 1.2 to Directive 71/320/EEC) with, for example, transmission and control (construction, adjustment, lever ratios, accessibility of control and its position, ratchet controls in the case of mechanical transmission, characteristics of the main parts of the linkage, cylinders and control pistons, brake cylinders or equivalent components in the case of electrical braking systems)

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 item 1.1.4.2 of Annex II to Directive 71/320/EEC (or the Appendix to Annex XI, 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 systems (according to item 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:

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 (Directive 77/649/EEC)

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. EC 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. EC 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. EC type-approval number(s):

9.5.4. Other glass panes

9.5.4.1. Materials used:

9.5.4.2. EC 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, EC 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. Mirrors (state for each mirror):

9.9.1.1. Make:

9.9.1.2. EC 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 fittings

9.10.1. Interior protection for occupants (Directive 74/60/EEC)

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 line including the exempted area (Annex I, item 2.3.1 to Directive 74/60/EEC):

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 (Annex I, item 3.2 to Directive 74/60/EEC):

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 mentioned in 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**[a]	**Identified by symbol**[a]	**Where**[b]	**Tell-tale available**	**Identified by symbol**[a]	**Where**[b]
1	Master light	OK (10)					
2	Dipped-beam headlamps						
3	Main-beam head lamps						

a	x	=	yes
		=	no or not separately available
	o	=	optional.
b	d	=	directly on control, indicator or tell-tale
	c	=	in close vicinity.

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						

a	x	=	yes
		=	no or not separately available
	o	=	optional.
b	d	=	directly on control, indicator or tell-tale
	c	=	in close vicinity.

19	Choke						
20	Brake failure						
21	Fuel level						
22	Battery charging condition						
23	Engine coolant temperature						

a	x	=	yes
		=	no or not separately available
	o	=	optional.
b	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 MUST BE USED IF THEY ARE TO BE IDENTIFIED

Symbol No	**Device**	**Control/ indicator available[a]**	**Identified by symbol[a]**	**Where[b]**	**Tell-tale available**	**Identified by symbol[a]**	**Where[b]**
1	Parking brake						
2	Rear window wiper						
3	Rear window washer						
4	Rear window wiper and washer						
5	Intermittent windscreen wiper						
6	Audible warning device (horn)						

a	x	=	yes
		=	no or not separately available
	o	=	optional.
b	d	=	directly on control, indicator or tell-tale
	c	=	in close vicinity.

7	Front hood (bonnet)						
8	Rear hood (boot)						
9	Seat belt						
10	Engine oil pressure						
11	Unleaded petrol						
…							
…							
…							

a	x	=	yes
		=	no or not separately available
	o	=	optional.
b	d	=	directly on control, indicator or tell-tale
	c	=	in close vicinity.

9.10.3. Seats

9.10.3.1. Number:

9.10.3.2. Position and arrangement:

9.10.3.2.1. Number of seating positions:

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

9.10.3.3. Mass:

9.10.3.4. Characteristics: for seats not EC 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 ([x])

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. Head restraints

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

9.10.4.2. EC 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. Heating systems for the passenger compartment

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 (Directive 74/297/EEC)

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 (Directive 95/28/EC)

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

9.10.7.1.1 Component EC 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 EC 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 EC 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 EC 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 EC 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 EC 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 EC type-approval number(s):

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

9.11. External projections (Directive 74/483/EEC and Directive 92/114/EEC)

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[a]	L			
	C			
	R			

a 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[a]	L			
	C			
	R			

a 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. EC 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 (**) of safety belt authorised for fitting to the anchorages with which the vehicle is equipped:

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

a 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.

Second row of seats[a]				
Right-hand seat	Lower anchorages	outboard		
		inboard		
	Upper anchorages			
Centre seat	Lower anchorages	right		
		left		
	Upper anchorages			
Left-hand seat	Lower anchorages	outboard		
		inboard		
	Upper anchorages			

a 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 × width):

9.14.6. Inclination of the plane to the vertical:

9.14.7. Angle of visibility in the horizontal plane:

9.15. Rear underrun protection (Directive 70/221/EEC)

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

9.15.1. Drawing of the vehicle parts relevant to the rear underrun 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 underrun protection. If the underrun protection is not a special device, the drawing must 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 underrun protection (including mountings and fittings), or, if approved as separate technical unit, EC type-approval number:

9.16. Wheel guards (Directive 78/549/EEC)

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 (Directive 76/114/EEC)

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 official part of the plates 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 requirement of item 1.1.1 of Annex II to Directive 76/114/EEC

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. Suppression of radio interference

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 (Directive 89/297/EEC)

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 must 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 EC type-approval number(s):

9.20. Spray-suppression system (Directive 91/226/EEC)

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. EC type-approval number(s) of spray-suppression device(s), if available:

9.21. Side-impact resistance (Directive 96/27/EC)

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 underrun protection

9.22.1. Drawing of the vehicle parts relevant to the front underrun protection, i.e. drawing of the vehicle and/or chassis with position and mounting and/or fitting of the front underrun protection. If the underrun protection is no special device, the drawing must 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 underrun protection (including mountings and fittings), or, if approved as a separate technical unit, EC 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) shall be provided. This description should include detail of any active protection system installed.

10. LIGHTING AND LIGHT SIGNALLING DEVICES

10.1. Table of all devices: number, make, model, EC 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 Directive 76/756/EEC 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 (paragraph 2.10 of the documents referred to in Annex II to Directive 76/756/EEC, item 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 as per paragraph 6.2.6.1 of the documents referred to in Annex II to Directive 76/756/EEC, item 1

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): …	Applicable only for vehicles with headlamp levelling device
10.4.4.	Control device: …	
10.4.5.	Reference marks: …	
10.4.6.	Marks assigned for loading conditions: …	

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. EC 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. EC 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 EC 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. EC 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 limiters (Directive 92/24/EEC)

12.6.1. Manufacturer(s):

12.6.2. Type(s):

12.6.3. EC 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)	max. output power (W)	antenna position at vehicle, specific conditions for installation and/or use

The applicant for type-approval must also supply, where appropriate:
Appendix 1

A list (with make(s) and type(s) of all electrical and/or electronic components concerned by this Directive (see points 2.1.9. and 2.1.10. of Directive 2004/104/EC) and not previously listed.
Appendix 2

Schematics or drawing of the general arrangement of electrical and/or electronic components (concerned by Directive 2004/104/EC) and the general wiring harness arrangement.
Appendix 3

Description of vehicle chosen to represent the type

Body style:

Left or right hand drive:

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 (strike out which is not applicable).

12.7.2. Vehicle equipped with a 79 GHz short-range radar equipment: Yes/No (strike out which is not applicable)

13. SPECIAL PROVISIONS FOR VEHICLES USED FOR THE CARRIAGE OF PASSENGERS COMPRISING MORE THAN EIGHT SEATS IN ADDITION TO THE DRIVER'S SEAT

13.1. Class of vehicle (Class I, Class II, Class III, Class A, Class B):

13.1.1. EC type-approval number of bodywork approved as a separate technical unit: …

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

13.2. Area for passengers (m^2)

13.2.1. Total (S_0):

13.2.2. Upper deck (S_{0a}) ([1]):

13.2.3. Lower deck (S_{0b}) ([1]):

13.2.4. For standing passengers (S_1):

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]):

13.5. 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 (m^3):

13.8. Area of luggage transportation on the roof (m^2):

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. EC 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 the Directive […/…/EC] to be accomplished and demonstrated for this technical unit:

14. SPECIAL PROVISIONS FOR VEHICLES INTENDED FOR THE TRANSPORT OF DANGEROUS GOODS (Directive 98/91/EC)

14.1. Electrical equipment according to Directive 94/55/EC

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:

Explanatory notes

Please fill in here the upper and lower values for each variant.

For symbols and marks to be used, see Annex III, items 1.1.3 and 1.1.4 to Directive 77/541/EEC. In the case of 'S' type belts, specify the nature of the type(s).

The information in respect of components need not be given here so long as such information is included in the relevant installation approval certificate.

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.

Only for the purpose of definition of off-road vehicles.

Set out in such a way as to make the actual value clear for each technical configuration of the vehicle type.

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

Specify the tolerance.

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 must be attached, give numbers of the corresponding attached documents.

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??).

Classified according to the definitions listed in Annex II, Section A.

If possible, designation according to Euronorm, otherwise give:

— description of the material,

— yield point,

— ultimate tensile stress,

— elongation (in %),

— Brinell hardness.

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.

ISO Standard 612 – 1978, term No 6.4.

ISO Standard 612 – 1978, term No 6.19.2.

ISO Standard 612 – 1978, term No 6.20.

ISO Standard 612 – 1978, term No 6.5.

ISO Standard 612 – 1978, term No 6.1 and for vehicles other than those of category M_1: Directive 97/27/EC, Annex I, Section 2.4.1.

ISO Standard 612 – 1978, term No 6.2 and for vehicles other than those of category M_1: Directive 97/27/EC, Annex I, Section 2.4.2.

ISO Standard 612 – 1978, term No 6.3 and for vehicles other than those of category M_1: Directive 97/27/EC, Annex I, Section 2.4.3.

ISO Standard 612 – 1978, term No 6.6.

ISO Standard 612 – 1978, term No 6.7.

ISO Standard 612 – 1978, term No 6.10.

ISO Standard 612 – 1978, term No 6.11.

ISO Standard 612 – 1978, term No 6.9.

ISO Standard 612 – 1978, term No 6.18.1.

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.

‘Coupling overhang’ is the horizontal distance between the coupling for centre-axle trailers and the centreline of the rear axle(s).

In the case of non-conventional engines and systems, particulars equivalent to those referred to here shall be supplied by the manufacturer.

This figure must be rounded off to the nearest tenth of a millimetre.

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

Determined in accordance with the requirements of Directive 80/1269/EEC.

Determined in accordance with the requirements of Directive 80/1268/EEC.

The specified particulars are to be given for any proposed variants.

A 5 % tolerance is permitted.

‘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 Directive 77/649/EEC.

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.

‘Forward control’ means a configuration in which more than half of the engine length is rearward of the foremost point of the windshield base and the steering wheel hub in the forward quarter of the vehicle length.