

ANNEX I

EU TYPE-APPROVAL IN RESPECT OF THE SOUND LEVEL OF A VEHICLE TYPE

1. APPLICATION FOR EU TYPE-APPROVAL OF A VEHICLE TYPE
 - 1.1. The application for EU type-approval pursuant to Article 7(1) and (2) of Directive 2007/46/EC of a vehicle type with regard to its sound level shall be submitted by the vehicle manufacturer.
 - 1.2. A model for the information document is contained in Appendix 1.
 - 1.3. A vehicle representative of the type in respect of which type-approval is sought shall be submitted by the vehicle manufacturer to the technical service responsible for the tests. In selecting the vehicle representative of the type, the technical service responsible for the tests shall do so to the satisfaction of the approval authority. Virtual testing methods may be used to aid decision-making during the selection process.
 - 1.4. At the request of the technical service, a specimen of the silencing system and an engine of at least the same cylinder capacity and rated maximum power as that fitted to the vehicle in respect of which type-approval is sought shall also be submitted.
2. MARKINGS
 - 2.1. The exhaust and intake system components, excluding fixing hardware and pipes, shall bear the following markings:
 - 2.1.1. the trade mark or name of the manufacturer of the systems and their components;
 - 2.1.2. the manufacturer's trade description.
 - 2.2. The markings referred to in points 2.1.1 and 2.1.2 shall be clearly legible and indelible, even when the system is fitted to the vehicle.
3. GRANTING OF EU TYPE-APPROVAL OF A VEHICLE TYPE
 - 3.1. If the relevant requirements are satisfied, EU type-approval pursuant to Article 9(3) and, if applicable, Article 10(4) of Directive 2007/46/EC shall be granted.
 - 3.2. A model for the EU type-approval certificate is contained in Appendix 2.
 - 3.3. An approval number in accordance with Annex VII to Directive 2007/46/EC shall be assigned to each vehicle type approved. The same Member State shall not assign the same number to another vehicle type.
 - 3.3.1. If the vehicle type complies with the limit values of Phase 1 in Annex III, Section 3 of the type-approval number shall be followed by the character 'A'. If the vehicle type complies with the limit values of Phase 2 in Annex III, Section 3 of the type-approval number shall be followed by the character 'B'. If the vehicle type complies with the limit values of Phase 3 in Annex III, Section 3 of the type-approval number shall be followed by the character 'C'.
4. AMENDMENTS TO EU TYPE-APPROVALS

In the case of amendments to the type approved pursuant to this Regulation, Articles 13, 14, 15, 16 and Article 17(4) of Directive 2007/46/EC shall apply.
5. CONFORMITY OF PRODUCTION ARRANGEMENTS

Status: This is the original version (as it was originally adopted).

- 5.1. Measures to ensure the conformity of production arrangements shall be taken in accordance with the requirements laid down in Article 12 of Directive 2007/46/EC.
- 5.2. Special provisions:
 - 5.2.1. The tests laid down in Annex VI to this Regulation shall correspond to those referred to in point 2.3.5 of Annex X to Directive 2007/46/EC.
 - 5.2.2. The frequency of inspections referred to in point 3 of Annex X to Directive 2007/46/EC shall normally be once every two years.

Appendix 1

Information document No ... pursuant to Annex I of Directive 2007/46/EC relating to EU type-approval of a vehicle with respect to the permissible sound level

The following information, if applicable, 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 have electronic controls, information concerning their performance shall be supplied.

0. GENERAL
 - 0.1. Make (trade name of manufacturer):
 - 0.2. Type:
 - 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):
 - 0.5. Company 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 ⁽⁴⁾:
 - 1.3.3. Powered axles (number, position, interconnection):
 - 1.6. Position and arrangement of the engine:
2. MASSES AND DIMENSIONS ^(f) ^(g) ⁽⁷⁾ (IN KG AND MM) (REFER TO DRAWING WHERE APPLICABLE)
 - 2.4. Range of vehicle dimensions (overall):
 - 2.4.1. For chassis without bodywork:
 - 2.4.1.1. Length ^(g5):
 - 2.4.1.2. Width ^(g7):
 - 2.4.2. For chassis with bodywork:
 - 2.4.2.1. Length ^(g5):
 - 2.4.2.2. Width ^(g7):
 - 2.6. Mass in running order ^(h)

- (a) minimum and maximum for each variant:
- (b) mass of each version (a matrix shall be provided):
- 2.8. Technically permissible maximum laden mass stated by the manufacturer ⁽¹⁾ ⁽³⁾:
- 3. POWER PLANT ⁽⁴⁾
- 3.1. Manufacturer of the engine:
- 3.1.1. Manufacturer's engine code (as marked on the engine, or other means of identification):
- 3.2. Internal combustion engine
- 3.2.1.1. Working principle: positive ignition/compression ignition, cycle four-stroke/two-stroke/rotary ⁽¹⁾
- 3.2.1.2. Number and arrangement of cylinders:
- 3.2.1.2.3. Firing order:
- 3.2.1.3. Engine capacity ^(m): ... cm³
- 3.2.1.8. Maximum net power ⁽ⁿ⁾: ... kW at ... min⁻¹ (manufacturer's declared value)
- 3.2.4. Fuel feed
- 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⁾
- 3.2.4.2.4. Governor
- 3.2.4.2.4. Type:
- 3.2.4.2.4.3. Speed at which cut-off starts under load: ... min⁻¹
- 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⁾
- 3.2.8. Intake system
- 3.2.8.1. Pressure charger: yes/no ⁽¹⁾
- 3.2.8.4.2. Air filter, drawings: or
- 3.2.8.4.2. Make(s):
- 3.2.8.4.2. Type(s):
- 3.2.8.4.3. Intake silencer, drawings: or
- 3.2.8.4.3. Make(s):
- 3.2.8.4.3. Type(s):
- 3.2.9. Silencing system

3.2.9.2. Description and/or drawing of the silencing system:

3.2.9.4. Exhaust silencer(s):

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:

3.2.12.2.1. Catalytic convertor: yes/no ⁽¹⁾

3.2.12.2.2. Number of catalytic convertors and elements (provide the information below for each separate unit):

3.2.12.2.6. Particulate trap: 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

3.4. Engines or motors or combinations thereof

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

3.4.2. Category of hybrid electric vehicle: off-vehicle charging/non 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):

3.4.5. Electric motor (describe each type of electric motor separately)

3.4.5.1. Make:

3.4.5.2. Type:

3.4.5.4. Maximum power: ... kW

4. TRANSMISSION ^(P)

4.2. Type (mechanical, hydraulic, electric, etc.):

4.6. Gear ratios

Status: This is the original version (as it was originally adopted).

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 ^a 1 2 3 ... Minimum for CVT ^a Reverse			

a Continuously variable transmission

4.7. Maximum vehicle design speed (in km/h) ⁽⁴⁾:

6. SUSPENSION

6.6. Tyres and wheels

6.6.1. Tyre/wheel combination(s)

(a) for tyres indicate size designation, load-capacity index and speed category symbol,

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

6.6.2. Upper and lower limits of rolling radii

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.

9. BODYWORK

9.1. Type of bodywork using the codes defined in Part C of Annex II to Directive 2007/46/EC:

9.2. Materials used and method of construction:

12. MISCELLANEOUS

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

Date:

Signed:

Position in company:

Appendix 2

Model EU type-approval certificate

(Maximum Format: A4 (210 × 297 mm))

Stamp of approval authority

Communication concerning the

type-approval⁽¹⁾

extension of type-approval⁽¹⁾

refusal of type-approval⁽¹⁾

withdrawal of type-approval⁽¹⁾

of a type of a vehicle with regard to the sound level (Regulation (EU) No 540/2014).

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 vehicle⁽²⁾:
 - 0.3.1. Location of that marking:
- 0.4. Category of vehicle⁽³⁾:
- 0.5. Company 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:
4. Number of test report:
5. Remarks (if any): See Addendum
6. Place:
7. Date:

Status: This is the original version (as it was originally adopted).

8. Signature:

Attachments:	Information package
	Test report (for systems)/Test results (for whole vehicles)

Addendum

to EU type-approval certificate No ...

1. Additional information
 - 1.1. Power plant
 - 1.1.1. Manufacturer of the engine:
 - 1.1.2. Manufacturer's engine code:
 - 1.1.3. Maximum net power (g): ... kW at ... min⁻¹ or maximum continuous rated power (electric motor) ... kW⁽⁴⁾
 - 1.1.4. Pressure charger(s), make and type:
 - 1.1.5. Air filter, make and type:
 - 1.1.6. Intake silencer(s), make and type:
 - 1.1.7. Exhaust silencer(s), make and type:
 - 1.1.8. Catalyst(s), make and type:
 - 1.1.9. Particulate trap(s), make and type:
 - 1.2. Transmission
 - 1.2.1. Type (mechanical, hydraulic, electric, etc.):
 - 1.3. Non-engine devices designed to reduce noise:
2. Test results
 - 2.1. Sound level of moving vehicle: ... dB(A)
 - 2.2. Sound level of stationary vehicle: ... dB(A) at ... min⁻¹
 - 2.2.1. Sound level of compressed air, service brake: ... dB(A)
 - 2.2.1. Sound level of compressed air, parking brake: ... dB(A)
 - 2.2.1. Sound level of compressed air, during the pressure regulator actuation: ... dB(A)
 - 2.3. Data to facilitate in-use compliance test of hybrid electric vehicles, where an internal combustion engine cannot operate when the vehicle is stationary
 - 2.3.1. Gear (i) or position of the gear selector chosen for the test:
 - 2.3.2. Position of the operating switch during measurement $L_{wot,(i)}$ (if switch is fitted)
 - 2.3.3. Pre-acceleration length l_{pA} ... m
 - 2.3.4. Vehicle speed at the beginning of the acceleration ... km/h
 - 2.3.5. Sound pressure level $L_{wot,(i)}$... dB(A)
3. Remarks:

Status: This is the original version (as it was originally adopted).

- (1) Delete where not applicable.
- (2) If the means of identification of type contains characters not relevant to describe the vehicle types covered by the type-approval certificate such characters shall be represented in the documentation by the symbol: '?' (e.g. ABC??123??).
- (3) As defined in Annex IIA to Directive 2007/46/EC.
- (4) Delete where not applicable.