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# $ightharpoonup \underline{B}$ COMMISSION IMPLEMENTING REGULATION (EU) No 901/2014

of 18 July 2014

implementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to the administrative requirements for the approval and market surveillance of two- or three-wheel vehicles and quadricycles

(Text with EEA relevance)

(OJ L 249, 22.8.2014, p. 1)

### Amended by:

Official Journal

		No	page	date
► <u>M1</u>	Commission Implementing Regulation (EU) 2016/1825 of 6 September 2016	L 279	47	15.10.2016
► <u>M2</u>	Commission Implementing Regulation (EU) 2020/239 of 20 February 2020	L 48	6	21.2.2020

# Corrected by:

- ►<u>C1</u> Corrigendum, OJ L 23, 28.1.2017, p. 122 (2016/1825)
- ►<u>C2</u> Corrigendum, OJ L 158, 21.6.2017, p. 51 (901/2014)

### COMMISSION IMPLEMENTING REGULATION (EU) No 901/2014

of 18 July 2014

implementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to the administrative requirements for the approval and market surveillance of two- or three-wheel vehicles and quadricycles

(Text with EEA relevance)

#### Article 1

### Subject matter

This Regulation provides for the implementing measures referred to in Article 72 of Regulation (EU) No 168/2013 to establish uniform conditions for the implementation of the administrative requirements for the approval of new two- or three-wheel vehicles and quadricycles, as well as systems, components and separate technical units designed and constructed for such vehicles. It also establishes the administrative requirements for placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems.

### Article 2

# Templates for the information document and for the information folder

Manufacturers applying for EU type-approval shall provide the information document and the information folder referred to in Article 27(1) and Article 27(2)(a) of Regulation (EU) No 168/2013 on the basis of the templates set out in Annex I to this Regulation.

### Article 3

# Templates for the manufacturer's statements on endurance testing and vehicle structure integrity

Manufacturers applying for EU type-approval shall provide statements on endurance of functional safety-critical systems, parts and equipment referred to in Article 22(2) of Regulation (EU) No 168/2013 and on vehicle structure integrity as referred to in Annex XIX to Commission Delegated Regulation (EU) No 3/2014 (¹) to that Regulation on the basis of the templates set out in Annex II to this Regulation.

<sup>(</sup>¹) Commission Delegated Regulation (EU) No 3/2014 of 24 October 2013 supplementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to vehicle functional safety requirements for the approval of two- or three-wheel vehicles and quadricycles (OJ L 7, 10.1.2014, p. 1)

#### Article 4

Templates for the manufacturer's certificates providing proof of compliance to the type-approval authority on access to vehicle on-board diagnostics (OBD) and to vehicle repair and maintenance information

Manufacturers applying for EU type-approval shall provide the approval authority with a certificate on access to vehicle OBD and vehicle repair and maintenance information in accordance with Article 57(8) of Regulation (EU) No 168/2013 on the basis of the templates set out in Annex III to this Regulation.

### Article 5

### Templates for the certificates of conformity

- 1. Manufacturers shall issue the certificate of conformity referred to in Article 38(1) of Regulation (EU) No 168/2013 in accordance with the templates set out in Annex IV to this Regulation.
- 2. In accordance with Article 82(2) of Regulation (EU) 168/2013 allowing manufacturers to request type-approvals already under that Regulation as from the entry into force of this Implementing Regulation until 31 December 2015, manufacturers may use for vehicles of such newly approved types, alternatively to the template for the Certificate of Conformity laid down in Appendix 1 of Annex IV, the template for the Certificate of Conformity set out in Annex IV to Directive 2002/24/EC which must include in its entries No 04 'Vehicle category' and No 50 'Remarks:' the information and entries laid down in Appendix 2 of Annex IV.

### Article 6

### Models for the statutory plate and EU type-approval mark

Manufacturers shall issue the statutory plate and the EU type-approval mark referred to in Article 39(1) and (2) of Regulation (EU) No 168/2013 in accordance with the models set out in Annex V to this Regulation.

### Article 7

### Templates for the EU type-approval certificate

Approval authorities shall issue the EU type-approval certificates referred to in Article 30(1) of Regulation (EU) No 168/2013 on the basis of the templates set out in Annex VI to this Regulation.

### Article 8

### Numbering system of the EU type-approval certificate

Pursuant to Article 29(4) of Regulation (EU) No 168/2013, the EU type-approval certificates shall be numbered in accordance with the harmonised system set out in Annex VII to this Regulation.

### Article 9

### Template for the test results sheet

Approval authorities shall issue the test results sheet referred to in Article 30(3) of Regulation (EU) No 168/2013 on the basis of the template set out in Annex VIII to this Regulation.

### Article 10

### Format of test reports

The format of the test reports referred to in Article 32(1) of Regulation (EU) No 168/2013 shall comply with the general requirements set out in Annex VIII to this Regulation.

### Article 11

# List of parts or equipment which may pose a serious risk to the correct functioning of essential systems

The list of parts or equipment which may pose a serious risk to the correct functioning of systems that are essential for the safety of the vehicle or for its environmental performance referred to in Article 50(2) of Regulation (EU) No 168/2013 is set out in Annex X to this Regulation.

### Article 12

Template and numbering system for the certificate for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems

Approval authorities shall issue the certificate for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of systems that are essential for the safety of the vehicle or for its environmental performance referred to in Article 51(2) of Regulation (EU) No 168/2013 on the basis of the template and in accordance with the numbering system set out in Annex IX to this Regulation.

## **▼**<u>M2</u>

### Article 12a

### Transitional provisions

- 1. Until 30 June 2020, national authorities shall continue to grant type-approvals to vehicle types in accordance with this Regulation in its version applicable on 11 March 2020.
- 2. Until 31 December 2020, the Member States shall permit the placing on the market, registration and entry into service of vehicles based on a vehicle type approved in accordance with this Regulation in its version applicable on 11 March 2020.

# Article 13

# Entry into force and application

This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

It shall apply from 1 January 2016.

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

### LIST OF ANNEXES

Annex Number	Annex Title
I	Templates for the information document and information folder
II	Templates for the manufacturer's statements on endurance testing and vehicle structure integrity
III	Templates for the manufacturer's certificates providing proof of compliance to the type-approval authority on access to vehicle on-board diagnostics (OBD) and to vehicle repair and maintenance information
IV	Templates for the certificates of conformity
V	Models for the statutory plate and EU type-approval mark
VI	Templates for the EU type-approval certificate
VII	Numbering system of the EU type-approval certificate
VIII	Format of test reports and template for the test results sheet
IX	Template and numbering system for the certificate for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems
X	List of parts or equipment which may pose a serious risk to the correct functioning of essential systems

ANNEX I

# Templates for the information document and information folder

# LIST OF APPENDICES

	Appendix Number	Appendix title
	1	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a tailpipe pollution-control system
	2	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a crankcase and evaporative emissions system
	3	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an on-board diagnostic (OBD) system
	4	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a sound level system
	5	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a propulsion unit performance system
▼ <u>M1</u>		
	5a	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a maximum torque and a maximum net power of a propulsion unit system
▼ <u>B</u>		
	6	Model information document relating to EU type-approval of a pollution-control device as a STU
	7	Model information document relating to EU type-approval of a noise-abatement device as a STU
	8	Model information document relating to EU type-approval of an exhaust (pollution-control device and noise-abatement device) as a STU
▼ <u>M1</u>		
	8a	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an installation of audible warning devices system
▼ <u>B</u>		
	9	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a braking system
▼ <u>M1</u>		
	9a	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an installation of glazing, windscreen wipers and defrosting and demisting devices system

# **▼**<u>M1</u>

	Appendix Number	Appendix title
•	9b	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an identification of controls, tell-tales and indicators system
<u>▼B</u>		
	10	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an installation of lighting and light-signalling devices system
•	11	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a roll-over protective structure (ROPS) system
▼ <u>M1</u>		
	11a	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a safety belt anchorages system
	11b	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a steer-ability, cornering properties and turn ability system
<u>▼B</u>		
	12	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an installation of tyres system
	13	Model information document relating to EU type-approval of an audible warning device as a component
▼ <u>M1</u>		
	13a	Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a vehicle occupant protection, including interior fittings, head restraint and vehicle doors system
<u>▼B</u>		
	14	Model information document relating to EU type-approval of a non-glazing front windscreen as a component/STU
•	15	Model information document relating to EU type-approval of a windscreen washer device as a component/STU
•	16	Model information document relating to EU type-approval of a rearward visibility device as a component/STU
	17	Model information document relating to EU type-approval of safety belts as a STU
	18	Model information document relating to EU type-approval of a seating position (saddle/seat) as a component/STU)
•	19	Model information document relating to EU type-approval of a trailer coupling device as a STU
		•

	Appendix Number	Appendix title
	20	Model information document relating to EU type-approval of devices to prevent unauthorised use as a STU
▼ <u>M1</u>		
	20a	Model information document relating to EU type-approval of a fuel tank as a STU
<u>▼</u> B		
	21	Model information document relating to EU type-approval of passenger handholds as a STU
	22	Model information document relating to EU type-approval of footrests as a STU
	23	Model information document relating to EU type-approval of a side-car as a STU
	24	Manufacturer's declaration for vehicles capable of converting their performance level from subcategory (L3e/L4e)-A2 to (L3e/L4e)-A3 and vice versa
	25	Manufacturer's declaration on powertrain tampering prevention measures (anti-tampering)

# PART A

### INFORMATION FOLDER

### 1. General requirements

- 1.1. When applying for EU type-approval for a vehicle, system, component or separate technical unit, the manufacturer shall provide, in accordance with Article 27 of Regulation (EU) No 168/2013, an information folder which shall contain the following:
- 1.1.1. a list of contents;
- 1.1.2. the information on the type-approval procedure chosen in accordance with Article 25(1) of Regulation (EU) No 168/2013, the template for which is set out in point 2 (information folder sheet);
- 1.1.3. the information document as set out in Part B of this Annex;
- 1.1.4. all relevant data, drawings, photographs and other information as required in the information document;
- 1.1.5. the manufacturer's statement on endurance of functional safety-critical systems, parts and equipment as referred to in Article 22(2) of Regulation (EU) No 168/2013 and set out in Annex II to this regulation;

- 1.1.6. the manufacturer's statement on vehicle structure integrity as referred to in Article 22(5) of Regulation (EU) No 168/2013 and in point 1.1.of Annex XIX to Commission Delegated Regulation (EU) No 3/2014 of 24 October 2013 supplementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to vehicle functional safety requirements for the approval of two- or three-wheel vehicles and quadricycles (1), as set out point 1.4. of Annex II to this regulation;
- 1.1.7. the manufacturer's certificate providing proof of compliance to the type-approval authority on access to vehicle on-board diagnostic (OBD) systems and to vehicle repair and maintenance information as referred to in Article 57(8) of Regulation (EU) No 168/2013 and set out in Annex III to this regulation;
- 1.1.8. the manufacturer's declaration of conversion of (L3e/L4e)-A2 to (L3e/L4e)-A3 motorcycle characteristics and vice versa as referred to in Article 25(8) of Regulation (EU) No 168/2013 and in point 4.2.6. of Annex III to Commission Delegated Regulation (EU) No 44/2014 of 21 November 2013 supplementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to the vehicle construction and general requirements for the approval of two- or three-wheel vehicles and quadricycles (²), as set out in Appendix 24 of this Annex;
- 1.1.9. the manufacturer's declaration on powertrain tampering prevention measures (anti-tampering) as referred to in Article 20(2) of Regulation (EU) No 168/2013 and in points 2.2., 2.6. and 5.2. of Annex II to Commission Delegated Regulation 44/2014 according to the models established in Appendix 25 of this Annex;
- 1.1.10. any additional information requested by the approval authority as part of the approval procedure.
- 1.2. Applications submitted on paper shall be in triplicate. Any drawings shall be to an appropriate scale and in sufficient detail on size A4 sheets or in a folder of A4 format. Photographs, if any, shall show sufficient detail.
- 1.3. If the systems, components or separate technical units have electronic controls, information concerning their performance shall be provided.
- 2. Template of the information folder sheet

### Information

on the type-approval procedure chosen in accordance with Article 25(1) of Regulation (EU) No 168/2013

### Information folder sheet

A duly completed version of this statement shall be included in the information folder.

The undersigned: [...... (full name and position)]

Company name and address of the manufacturer:

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

<sup>(1)</sup> OJ L 7, 10.1.2014, p. 1.

<sup>(2)</sup> OJ L 25, 28.1.2014, p. 1.

Hereby applies for type-approval procedure<sup>(4)</sup>: (a) step-by-step type-approval (b) single-step type-approval (c) mixed type-approval Where procedures (a) or (c) are chosen, compliance with requirements as under (b) is declared for all systems, components and separate technical units. Multi-stage type-approval chosen in accordance with Article 25(5) of Regulation (EU) No 168/2013: yes/no<sup>(4)</sup> Information on the vehicle(s) to be filled in, if application is for EU whole-vehicle type-approval(3) 0.1 Make (trade name of the manufacturer): Type<sup>(17)</sup>: ..... 0.2. Variant(s)<sup>(17)</sup>: ..... 0.2.1. 0.2.2. Version(s)<sup>(17)</sup>: 0.2.3. Commercial name(s) (if available): Category, subcategory and sub-subcategory of vehicle(2): 0.3. Information to be filled in, if application is for type-approval of a system/ component/separate technical unit(3)(4): 0.7. Make(s) (trade name(s) of manufacturer): 0.8. Type: ..... 0.8.1.Commercial name(s) (if available):

## 1.6. Virtual and/or self-testing<sup>(3)</sup>

1.6.1. Overview list with virtual and/or self-tested systems, components or separate technical units pursuant to point 6 of Annex III to Commission Delegated Regulation (EU) No 44/2014 below:

### Overview table virtual and/or self-testing

Delegated act	Annex	Subject	Virtual and/or self-tested: yes/ no <sup>(4)</sup>	
Commission Delegated Regulation (EU) No 134/ 2014 (*)	IX	Testing procedures on maximum design vehicle speed	Self-testing: yes/no <sup>(4)</sup>	
Commission Delegated Regulation (EU) No 3/2014	II	Audible warning devices	Self-testing: yes/no <sup>(4)</sup>	
Commission Delegated Regulation (EU) No 3/2014	VIII	Driver-operated controls including identification of controls, tell-tales and indicators	Self-testing: yes/no <sup>(4)</sup>	
Commission Delegated Regulation (EU) No 3/2014	IX	Installation of lighting and light- signalling devices	Virtual testing: yes/no <sup>(4)</sup>	
Commission Delegated Regulation (EU) No 3/2014	X	Rearward visibility	Virtual testing: yes/no <sup>(4)</sup>	

Annex	yes/no <sup>(4)</sup> Registration plate space Self & Virtua testing: yes/no <sup>(4)</sup>	
XIV	Installation of tyres	
XIV	Registration plate space	Self & Virtual testing: yes/no <sup>(4)</sup>
XVI	Stands	Self-testing: yes/no <sup>(4)</sup>
VIII	Statutory plate and EU type-approval mark	Self-testing: yes/no <sup>(4)</sup>
	XIV	XIV Installation of tyres  XIV Registration plate space  XVI Stands  VIII Statutory plate and EU

<sup>(\*)</sup> Commission Delegated Regulation (EU) No 134/2014 of 16 December 2013 supplementing Regulation (EU) No 168/2013 of the European Parliament and of the Council with regard to environmental and propulsion unit performance requirements and amending Annex V thereof (OJ L 53, 21.2.2014, p. 1).

							(4)
162	Detailed report	on validation	of virtual	and/or	self-testing	added:	$ves/no^{(4)}$

Place:	Date:

Signature: ... Name and position in the company: ...

# PART B

# INFORMATION DOCUMENT

### 1. General requirements

- 1.1. The information document shall have a reference number supplied by the applicant.
- 1.2. Where the particulars appearing in the information document for vehicle approval have changed, the manufacturer shall submit revised pages to the approval authority showing clearly the nature of the change(s) and the date of re-issue.

### 1.3. Type-approval numbers

1.3.1. The manufacturer shall supply the information required by the following table in respect of the applicable subjects for the vehicle in Annex II to Regulation (EU) No 168/2013. All relevant approvals and test reports (if available) for each subject shall be included. However, information in respect of systems, components or separate technical units need not be given here so long as such information is included in the correspondent approval certificate.

### Type-approval number and test report overview

Item number and subject	Type-approval number or test report number (***)	Date of issue of the type-approval or of its extension or of the test report	Member State or contracting party (*) issuing the type- approval (**) or technical service issuing the test report (***)	Reference to the regulatory act and its latest amendment	Variant(s)/ version(s
e.g. B1 audible warning devices					

- (\*) Contracting parties to the Revised 1958 Agreement.
- (\*\*) To be indicated if not obtainable from the type-approval number.
- (\*\*\*) The approval authority shall complete the references for the test reports, established by regulatory acts, for which no type-approval certificate is available.

31 11
Signed:
Position in company:
Date:

# **▼**<u>M2</u>

1.4. Vehicles and Vehicle types shall be identified as compliant with environmental step Euro 5 or environmental step Euro 5+ in accordance with the following Table:

### Identification of environmental step Euro 5 and Euro 5+ for L-category vehicles

(sub-) category	Obligatory as of: 1.1.2020 for new types of vehicles 1.1.2021 for existing types of vehicles	Envi. step	Obligatory as of: 1.1.2024 for new types of vehicles 1.1.2025 for existing types of vehicles	Envi. step	
Lle	OBD system not required	Euro 5	OBD system not required	F 5	
Lie	test types I, IV & V: Euro 5	Euro 3	Euro 5		
L2e (other than	OBD system not required	Euro 5	OBD system not required	Euro 5	
L2e-U)	test types I, IV & V: Euro 5	Euro 3	test types I, IV & V: Euro 5	Euro 3	
	OBD system not required		OBD system not required		
L2e-U	test type I: Euro 4	Euro 5	test type I: Euro 5	Euro 5+	
	test type IV & V: Euro 5		test types IV & V: Euro 5		

# **▼**<u>M2</u>

(sub-) category	Obligatory as of: 1.1.2020 for new types of vehicles 1.1.2021 for existing types of vehicles	Envi. step	Obligatory as of: 1.1.2024 for new types of vehicles 1.1.2025 for existing types of vehicles	Envi. step	
	monitors electric circuit and electronics failure, and triggers a report when:		OBD stage I system that monitors electric circuit and electronics failure, and triggers a report when:		
			(a) OBD emission thresholds of Annex VI (B2) to Regulation (EU) No 168/ 2013 are exceeded, and		
L3e (other than enduro and	(b) any operating mode significantly reduces engine torque.	Б. б	(b) any operating mode significantly reduces engine torque.	F (1)	
trial), L4e, L5e-A and L7e-A	OBD stage II that monitors emission control system failures and degradation (with the exception of catalyst monitoring), and reports when:	Euro 5	OBD stage II that monitors emission control system failures and degradation, and reports when:	Euro 5+	
	OBD emission thresholds of Annex VI (B1) to Regulation (EU) No 168/ 2013 are exceeded.		OBD emission thresholds of Annex VI (B2) to Regulation (EU) No 168/ 2013 are exceeded.		
	test types I, IV & V: Euro 5		test types I, IV & V: Euro 5		
	OBD stage I system that monitors electric circuit and electronics failure, and triggers a report when:		OBD stage I system that monitors electric circuit and electronics failure, and triggers a report when:		
Enduro L3e- AxE and Trial L3e-AxT	(a) OBD emission thresholds of Annex VI (B1) to Regulation (EU) No 168/ 2013 are exceeded, and	Euro 5	(a) OBD emission thresholds of Annex VI (B2) to Regulation (EU) No 168/ 2013 are exceeded, and	Euro 5+	
	(b) any operating mode significantly reduces engine torque.		(b) any operating mode significantly reduces engine torque.	Euro 31	
	test type I: Euro 4		test type I: Euro 5		
	test types IV & V: Euro 5		test types IV & V: Euro 5		

# **▼**<u>M2</u>

(sub-) category	Obligatory as of: 1.1.2020 for new types of vehicles 1.1.2021 for existing types of vehicles	Envi. step	Obligatory as of: 1.1.2024 for new types of vehicles 1.1.2025 for existing types of vehicles	Envi. step
L5e (other than Le5-A) and L7e (other than L7e-A)	OBD stage I system that monitors electric circuit and electronics failure, and triggers a report when:		OBD stage I system that monitors electric circuit and electronics failure, and triggers a report when:	
	(a) OBD emission thresholds of Annex VI (B1) to Regulation (EU) No 168/ 2013 are exceeded, and	Euro 5	(a) OBD emission thresholds of Annex VI (B2) to Regulation (EU) No 168/ 2013 are exceeded, and	Euro 5+
	(b) any operating mode significantly reduces engine torque.		(b) any operating mode significantly reduces engine torque.	
	test types I, IV & V: Euro 5		test types I, IV & V: Euro 5	
L6e other than	OBD system not required		OBD system not required	
L6e-B	test types I, IV & V: Euro 5	Euro 5	test types I, IV & V: Euro 5	Euro 5
	OBD system not required		OBD system not required	
L6e-B	test type I: Euro 4	Euro 5	test type I: Euro 5	Euro 5+
	test type IV & V: Euro 5		test type IV & V: Euro 5	

# **▼**<u>B</u>

### 2. Content of the information document

All information documents shall contain the following:

- 2.1. For a whole vehicle type-approval the manufacturer shall complete:
  - the matrix in point 2.3. to identify the versions and variants of the vehicle intended for type-approval;
  - a list of items applicable to the (sub-)category and to the technical characteristics of the vehicle from which content has been extracted, adhering to the numbering system of the total list set out in point 2.6.

**▼**<u>M1</u>

**▼**<u>B</u>

2.2. For a system, component or separate technical unit as listed in table 1 the manufacturer shall complete the applicable appendix to this Annex.

In addition to the Annexes mentioned in table 1, the systems, components and separate technical units shall comply with the following requirements:

- arrangements for type-approval procedures (Annex III of Commission Delegated Regulation (EU) No 44/2014)
- conformity of production (CoP) (Annex IV of Delegated Regulation (EU) No 44/2014)
- access to repair and maintenance information (Annex XV of Delegated Regulation (EU) No 44/2014)

Table 1

### Lists of systems, components and separate technical units which may be subject to an EU type-approval

LIST I — Environmental and propulsion unit performance requirements				
Appendix	System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No 134/2014 Annex number	As amended by and/or a the stage of implementation	
1	System: tailpipe pollution-control system	II, III, V, VI		
2	System: crankcase and evaporative emissions	IV, V		
3	System: environmental and functional on-board diagnostic (OBD)	VIII (and Annex XII to Commission Delegated Regulation (EU) No 44/2014)		
4	System: sound level	IX		
5	System: propulsion unit performance	Х		
5a	System: maximum torque and a maximum net power of a propulsion unit	X Appendix 2		
6	STU: pollution-control device	II, III, IV, V, VI		
7	STU: noise-abatement device	IX		
8	STU: exhaust device (pollution- control device and noise-abatement device)	II, III, V, VI, IX		

LIST II –	<ul> <li>Vehicle</li> </ul>	functional	safety	requirements
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	Appendix	System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No 3/2014 Annex number	As amended by and/or at the stage of implemen- tation
<b>▼</b> <u>M1</u>				
	8a	System: installation of audible warning devices	II	
<u>▼B</u>				
_	9	System: braking	Ш	
<b>▼</b> <u>M1</u>				
	9a	System: installation of glazing, wind- screen wipers and defrosting and demisting devices	VII	
_	9b	System: identification of controls, tell-tales and indicators	VIII	
▼ <u>B</u>				
	10	System: installation of lighting and light-signalling devices	IX	
_	11	System: Roll-over protective structure (ROPS)	XI	
▼ <u>M1</u>				
_	11a	System: safety belt anchorages	XII	
	11b	System: steer-ability, cornering properties and turn ability	XIV	
_	12	System: installation of tyres	XV	
	13	Component: audible warning device	II	
▼ <u>M1</u>				
	13a	System: vehicle occupant protection, including interior fittings, head restraint and vehicle doors	XVII	
<u>▼B</u>				
	14	Component/STU: non-glazing front windscreen	VII	

Appendix	System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No 3/2014 Annex number	As amended by and/or at the stage of implementation
15	Component/STU: windscreen washer device	VII	
16	Component/STU: rearward visibility device	Х	
17	STU: safety belts	XII	
18	Component/STU: seating position (saddle/seat)	XIII	

# LIST III — Vehicle construction and general type-approval requirements

Appendix	System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No 44/2014 Annex number	As amended by and/or at the stage of implementation
19	STU: trailer coupling device	V	
20	STU: devices to prevent unauth- orised use	VI	
20a	STU: fuel tank	IX	
21	STU: passenger handholds	XIII	
22	STU: footrests	XIII	
23	STU: side-car	VIII, XI, XIII; (and Annexes III, V, VII, IX, X, XII, XIII, XIV, XV, XVII and XIX to Commission Delegated Regulation (EU) No 3/2014)	

**▼**<u>M1</u>

**▼**<u>B</u>

2.3. Matrix showing the combinations of the entries listed in point 2.6. within the versions and variants of the vehicle type

#### Variants and version matrix

Item No	All	Version 1	Version 2	Version 3	Version n

- 2.3.1. A separate matrix shall be compiled for each variant within the type.
- 2.3.2. Entries with no restrictions on their combination within a variant shall be listed in the column headed 'All'.
- 2.3.3. The above information may be presented in an alternative format or merged with the information supplied under point 2.6.
- 2.4. Type-, variant- and version designations
- 2.4.1. The manufacturer shall allocate an alphanumeric code to each vehicle type, variant and version, made up of Roman letters and/or Arabic numerals, which shall also be indicated in the certificate of conformity (see Annex IV) of the vehicle concerned.

The use of brackets and hyphens is permitted provided they do not replace a letter or a numeral.

- 2.4.2. The whole code shall be designated: Type-Variant-Version or 'TVV'.
- 2.4.3. The TVV shall clearly and unequivocally identify a unique combination of technical features in relation to the criteria defined in Part B of this Annex.
- 2.4.4. The same manufacturer may use the same code in order to define a vehicle type when the latter falls in two or more categories.
- 2.4.5. The same manufacturer shall not use the same code in order to define a vehicle type for more than one type-approval within the same vehicle category.
- 2.4.6. Number of characters for the TVV
- 2.4.6.1. The number of characters shall not exceed:
  - a. 15 for the code of the vehicle type;
  - b. 25 for the code of one variant;
  - c. 35 for the code of one version.

- 2.4.6.2. The complete alphanumeric 'TVV' shall not contain more than 75 characters.
- 2.4.6.3. When the TVV is used as a whole, a space shall be left between the type, the variant and the version.

Example of such TVV: 159AF[... space]0054[... space]977K(BE).

- 2.5. For those subjects referred to in Annex II to Regulation (EU) No 168/2013 whose approvals have been granted in accordance with the UNECE regulations referred to in Article 54 of Regulation (EU) 168/2013 (UNECE approvals), the manufacturer shall supply the information required in point 2.7. only if it is not already provided in the correspondent approval certificate and/or test report. However, the information referred to in the certificate of conformity (Annex IV) shall be supplied in any case.
- 2.6. The manufacturer shall complete the applicable item numbers of the template set out in point 2.8. and submit this filled-out list to the approval authority that grants the type-approval, split into two separate documents. The applicable items marked with \* shall remain with the approval authority that grants the type-approval and all other applicable items shall make part of the information folder. The Colum '(Sub) categories' indicates to which sub-categories applies each particular entry (e.g. 'L1e L7e' means that the entry applies to all categories and subcategories).
- 2.7. The following type of data entries may be omitted in the information document under the condition that an appropriate technical drawing either as a paper document or a pdf-file is added to the information folder and on which these listed items are shown in a clear and readable way:
- 2.7.1. Make (with the exemption of Item No 0.1);
- 2.7.2. Type (with the exemption of Item No 0.2);
- 2.7.3. Location / where:
- 2.7.4. Working principle (with the exemption of Item No 3.2.1.2);
- 2.7.5. Characteristics;
- 2.7.6. Number of (with the exemption of Items No 1.3., 3.2.1.1. and 6.16.1.);
- 2.7.7. Identification / part number;
- 2.7.8. (Brief) / (Technical) description;
- 2.7.9. Design;
- 2.7.10. Schematic drawing / diagram;
- 2.7.11. (Construction) materials used;
- 2.7.12. Angles / inclination and other dimensions (height, length, width, distance) (with the exemption of Items No 2.2.1., 2.2.2., 2.2.3., 2.2.17., 7.6.1. and 7.6.2.);
- 2.7.13. Tolerance;

- 2.7.14. Reference mark;
- 2.7.16. Configuration.

# 2.8. INFORMATION DOCUMENT DATA ENTRIES

Item No.	(Sub) categories	Detailed information
0.		GENERAL INFORMATION
A.		General information concerning vehicles
0.1.	L1e — L7e	Make (trade name of manufacturer):
0.2.	L1e — L7e	Type <sup>(17)</sup> :
0.2.1	L1e — L7e	Variant(s) <sup>(17)</sup> :
0.2.2	L1e — L7e	Version(s) <sup>(17)</sup> :
0.2.3.	L1e — L7e	Commercial name(s) (if available):
0.3.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.4.	L1e — L7e	Company name and address of manufacturer:
0.4.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.4.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.5.	L1e — L7e	Manufacturer's statutory plate(s):
0.5.1.	L1e — L7e	Location of the manufacturer's statutory plate <sup>(15)(18)</sup> :
0.5.2.	L1e — L7e	Method of attachment:
0.5.3.	L1e — L7e	Photographs and/or drawings of the statutory plate (completed example with dimensions):
0.6.	L1e — L7e	Location of the vehicle identification number <sup>(15)</sup> :
0.6.1.	L1e — L7e	Photographs and/or drawings of the locations of the vehicle identification number (completed example with dimensions):
0.6.1.1.	L1e — L7e	The serial number of the type begins with:
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:

Item No.	(Sub) categories	Detailed information
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> .
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information regarding conformity of production and access to repair and maintenance information
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
0.13.		Access to repair and maintenance information
0.13.1.	L1e — L7e	Address of principal website for access to vehicle repair and maintenance information:
0.13.2.	L1e — L7e	In the case of multi-stage type-approval, address of principal website for access to vehicle repair and maintenance information from manufacturer(s) at previous stage(s):
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.1.	L1e — L7e	Photographs and/or drawings of a representative vehicle:
1.2.	L1e — L7e	Scale drawing of the whole vehicle:
1.3.	L1e — L7e	Number of axles and wheels:
1.3.1.	L1e — L7e	Axles with twinned wheels <sup>(23)</sup> :
1.3.2.	L1e — L7e	Powered axles <sup>(23)</sup> :
1.4.	L1e — L7e	Chassis (if any) (overall drawing):
1.5.	L2e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Material used for the bodywork:
1.6.	L1e — L7e	Position and arrangement of the propulsion(s):

Item No.	(Sub) categories	Detailed information	
1.7.	L4e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Hand of drive: left/right/centre <sup>(4)</sup> :	
1.7.1.	L1e — L7e	Vehicle is equipped to be driven in right/left-hand traffic and in countries that use metric/metric and imperial units. (4):	
1.8.		Propulsion unit performance	
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h	
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22): km/h and gear in which it is reached:	
1.8.3.	L1e — L7e	Maximum net power combustion engine: kW at min <sup>-1</sup> at A/F ratio:	
1.8.4.	L1e — L7e	Maximum net torque combustion engine:	
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ): kW at min <sup>-1</sup>	
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at min <sup>-1</sup>	
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:	
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):	
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:	
2.		MASSES AND DIMENSIONS (in kg and mm.) refer to drawings where applicable	
2.1		Range of vehicle mass (overall)	
2.1.1.	L1e — L7e	Mass in running order:kg	
2.1.1.1.	L1e — L7e	Distribution of mass in running order between the axles:kg	
2.1.2.	L1e — L7e	Actual mass: kg	
2.1.2.1.	L1e — L7e	Distribution of actual mass between the axles:kg	
2.1.3.	L1e — L7e	Technically permissible maximum laden mass:kg	
2.1.3.1.	L1e — L7e	Technically permissible maximum mass on front axle:kg	
2.1.3.2.	L1e — L7e	Technically permissible maximum mass on rear axle:kg	
2.1.3.3.	L4e	Technically permissible maximum mass on sidecar axle:kg	
2.1.4.	L1e — L7e	Maximum hill-starting ability at the maximum technically permissible mass declared by the manufacturer:% slope	
2.1.5.	L1e — L7e	Maximum pay mass declared by manufacturer:kg	
2.1.6.	L1e — L7e	Safe load carrying capacity of load platform declared by manufacturer:kg	
2.1.7.	L1e — L7e	Technically permissible maximum towable mass in case of <sup>(4)</sup> : Braked: kg Unbraked: kg	

Item No.	(Sub) categories	Detailed information
2.1.7.1	L1e — L7e	Technically permissible maximum laden mass of the combination: kg
2.1.7.2.	L1e — L7e	Technically permissible maximum mass at the coupling point: kg
2.1.8.	L1e — L7e	Mass of the optional equipment:kg
2.1.9.	L1e — L7e	Mass of the superstructure:kg
2.1.10.	L1e — L7e	Mass of the propulsion battery:kg
2.1.11.	L2e, L4e, L5e, L6e, L7e	Mass of the doors:kg
2.1.12.	L2e-U, L5e-B, L6e-BU, L7e- CU	Mass of the machines or equipment installed on the load platform area:kg
2.1.13.	L1e — L7e	Mass of the gaseous fuel system as well as storage tanks for gaseous fuel:
2.1.14.	L1e — L7e	Mass of the storage tanks to store compressed air:kg
2.2.		Range of vehicle dimensions (overall)
2.2.1.	L1e — L7e	Length: mm
2.2.2.	L1e — L7e	Width: mm
2.2.3.	L1e — L7e	Height: mm
2.2.4.	L1e — L7e	Wheelbase:mm
2.2.4.1.	L4e	Wheelbase sidecar <sup>(28)</sup> :mm
2.2.5.		Track width
2.2.5.1.	L1e — L7e if equipped with twinned wheels L2e, L4e, L5e, L6e, L7e	Track width front: mm.
2.2.5.2.	L1e — L7e if equipped with twinned wheels	Track width rear: mm.
2.2.5.3.	L2e, L4e, L5e, L6e, L7e	Track width sidecar: mm.
2.2.6.	L7e-B	Front overhang:
2.2.7.	L7e-B	Rear overhang: mm.
2.2.8.		Load platform dimensions
2.2.8.1.	L2e-U, L5e-B, L6e-BU, L7e- B2, L7e-CU	Length of the load platform: mm.
2.2.8.2.	L2e-U, L5e-B, L6e-BU, L7e- B2, L7e-CU	Width of load platform: mm.
2.2.8.3.	L2e-U, L5e-B, L6e-BU, L7e- B2, L7e-CU	Height of load platform:mm.

Item No.	(Sub) categories	Detailed information	
2.2.9.		Centre of gravity	
2.2.9.1.	L2e-U, L5e-B, L6e-BU, L7e- B2, L7e-CU	Location of the centre of gravity forward of the rear axle Lcg: mm.	
2.2.9.2.	L2e-U, L5e-B, L6e-BU, L7e- B2, L7e-CU	Location of the centre of gravity above the ground plane Hcg: mm.	
2.2.9.3.	L2e-U, L5e-B, L6e-BU, L7e- B2, L7e-CU	Location centre of gravity of loaded platform forward of the rear axle LcgLP:	
2.2.10.		Miscellaneous dimensions	
2.2.10.1.	L7e-B2	Approach angle <sup>(11)</sup> :	
2.2.10.2.	L7e-B2	Departure angle <sup>(11)</sup> :	
2.2.10.3.	L7e-B2	Ramp angle <sup>(11)</sup> :	
2.2.10.4.	L7e-B2	Ground clearance under the front axle <sup>(11)</sup> :	
2.2.10.5.	L7e-B2	Ground clearance under the rear axle <sup>(11)</sup> :	
2.2.10.6.	L3e-AxE (x=1, 2 or 3), L3e- AxT (x=1, 2 or 3) L7e-B	Ground clearance between the axles <sup>(11)</sup> :	
2.2.10.7.	L7e-B	Wheelbase to ground clearance ratio	
2.2.10.8.	L7e-B2	Static stability coefficient — Kst:	
2.2.10.9.	L3e-AxE, L3e-AxT	Seat height: mm	
2.2.10.10.	L3e-AxE, L3e-AxT	Ground clearance: mm	
3.		GENERAL POWERTRAIN CHARACTERISTICS	
3.1		Manufacturer of the propulsion unit	
3.1.1.		Combustion engine	
3.1.1.1.	L1e — L7e	Manufacturer:	
3.1.1.2.	L1e — L7e	Engine code (as marked on the engine or other means of identification):	
3.1.1.3.	L1e — L7e	Fuel identification marking (if available):	
3.1.2.		Electric motor	
3.1.2.1.	L1e — L7e	Manufacturer:	
3.1.2.2.	L1e — L7e	Electric motor code (as marked on the engine or other means of identification):	
3.1.3.		Hybrid application	
3.1.3.1.	L1e — L7e	Manufacturer:	
3.1.3.2.	L1e — L7e	Application code (as marked on the engine or other means of identification):	

Item No.	(Sub) categories	Detailed information
3.1.3.3.	L1e — L7e	Fuel identification marking (if available):
3.1.3.4.	L1e — L7e	Photographs and/or drawings of the location of the code(s) and/or type-approval numbers (completed example with dimensions) <sup>(20)</sup> :
3.2.		Combustion engine
3.2.1.		Specific engine information
3.2.1.1.	L1e — L7e	Number of combustion engines:
3.2.1.2.	L1e — L7e	Working principle: internal combustion engine (ICE)/positive ignition/compression ignition /external combustion engine (ECE)/turbine/compressed air <sup>(4)</sup> :
3.2.1.3.	L1e — L7e	Cycle: four-stroke/two-stroke/rotary/other <sup>(4)</sup> :
3.2.1.4.	L1e — L7e	Cylinders
3.2.1.4.1.	L1e — L7e	Number:
3.2.1.4.2.	L1e — L7e	Arrangement <sup>(26)</sup> :
3.2.1.4.3.	L1e — L7e	Bore <sup>(12)</sup> : mm
3.2.1.4.4.	L1e — L7e	Stroke <sup>(12)</sup> :
3.2.1.4.5.	L1e — L7e	Number and configuration of stators in the case of rotary-piston engine:
3.2.1.4.6.	L1e — L7e	Volume of combustion chambers in the case of rotary-piston engine:
3.2.1.4.7.	L1e — L7e	Firing order:
3.2.1.5.	L1e — L7e	Engine capacity <sup>(6)</sup> :
3.2.1.6.	L1e — L7e	Volumetric compression ratio <sup>(7)</sup> :
3.2.1.7.	L1e — L7e	Number of inlet and exhaust valves
* 3.2.1.7.1.	L1e — L7e	Number and minimum cross-sectional areas of inlet and outlet ports:
* 3.2.1.7.2.	L1e — L7e	Valve timing or equivalent data:
* 3.2.1.7.3.	L1e — L7e	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:
* 3.2.1.7.4.	L1e — L7e	Reference and/or setting ranges <sup>(4)</sup> :
3.2.1.8.	L1e — L7e	Drawings of combustion chamber, cylinder head, piston, piston rings:
3.2.1.9.	L1e — L7e	Normal warm engine idling speed: min <sup>-1</sup>
3.2.1.10.	L1e — L7e	Stop-start system: yes/no <sup>(4)</sup>
* 3.2.2.		Powertrain/propulsion/drive-train management system
3.2.2.1.	L1e — L7e	PCUs/ECUs <sup>(4)</sup> software identification number(s): and calibration verification number(s):

Item No.	(Sub) categories	Detailed information	
3.2.3.		Fuel	
3.2.3.1.	L1e — L7e	Fuel type: (9)	
3.2.3.2.	L1e — L7e	Vehicle fuel configuration: mono-fuel/bi- fuel/flex fuel <sup>(4)</sup>	
3.2.3.2.1.	L1e — L7e	Maximum amount of bio-fuel acceptable in fuel: % by volume	
3.2.4.		Fuel pressure delivery and control	
3.2.4.1.	L1e — L7e	Brief description and schematic drawing of low-and/or high-pressure fuelling wet system(s) <sup>(4)</sup> :	
3.2.4.2.	L1e — L7e	Low- and/or high-pressure fuel pump(s): yes/no <sup>(4)</sup>	
3.2.4.2.1.	L1e — L7e	Fuel pump control: mechanical/on/off electric/continuous operation/electronically controlled variable operation <sup>(4)</sup> :	
3.2.4.2.2.	L1e — L7e	For CI combustion engines and dual fuel engines only maximum fuel delivery (4)(7): g/s or mm <sup>3</sup> /stroke or cycle at an engine speed of:min <sup>-1</sup> or, alternatively, a characteristic diagram:	
		(When boost control is supplied, state the characteristic fuel delivery and boost pressure versus engine speed)	
3.2.4.3.	L1e — L7e	Common rail: yes/no <sup>(4)</sup>	
3.2.4.4.	L1e — L7e	Fuel distributor/rail/hoses <sup>(4)</sup> : yes/no <sup>(4)</sup>	
3.2.4.5.	L1e — L7e	Fuel pressure and/or fuel flow regulator(s): yes/no <sup>(4)</sup>	
3.2.5.		Fuel mass metering and control	
3.2.5.1.	L1e — L7e	By carburettor(s): yes/no <sup>(4)</sup>	
* 3.2.5.1.1.	L1e — L7e	Operating principle and construction:	
* 3.2.5.1.2.	L1e — L7e	Maximum fuel-flow rate: g/s at maximum power and torque:	
3.2.5.1.3.	L1e — L7e	Carburettor(s) settings <sup>(7)</sup> :	
* 3.2.5.1.4.	L1e — L7e	Carburettor diffusers:	
* 3.2.5.1.5.	L1e — L7e	Carburettor fuel-level in float chamber:	
* 3.2.5.1.5.1.	L1e — L7e	Carburettor mass of float:	
3.2.5.1.6.	L1e — L7e	Carburettor cold-starting system: manual/automatic <sup>(4)</sup> : yes/no <sup>(4)</sup>	
3.2.5.1.6.1.	L1e — L7e	Carburettor cold-starting system operating principle(s):	
3.2.5.1.7.	L1e — L7e	Mixture scavenging port: yes/no <sup>(4)</sup>	
3.2.5.1.7.1.	L1e — L7e	Mixture scavenging port dimensions:	
3.2.5.2.	L1e — L7e	By mechanically/hydraulically controlled fuel injection <sup>(4)</sup> : yes/no <sup>(4)</sup>	
3.2.5.2.1.	L1e — L7e	Operation principle:	
3.2.5.2.2.	L1e — L7e	Mechanical/electronic <sup>(4)</sup> adjustment of maximum fuel mass delivery: yes/no <sup>(4)</sup>	
3.2.5.3.	L1e — L7e	By electronically controlled fuel injection system: yes/no <sup>(4)</sup>	
3.2.5.3.1.	L1e — L7e	Operation principle: port injection/direct injection/pre-chamber/swirl chamber <sup>(4)</sup> :	
3.2.5.3.2.	L1e — L7e	Fuel injector(s): single-/multi-point/direct injection/other (specify) (4):	

Item No.	(Sub) categories	Detailed information
3.2.5.3.3.	L1e — L7e	Total and per cylinder amount of fuel injectors:
3.2.5.4.	L1e — L7e	Air-assisted fuel injector: yes/no <sup>(4)</sup> :
3.2.5.4.1.	L1e — L7e	Description and operating pressure of air-assist:
3.2.5.5.	L1e — L7e	Cold start system: yes/no <sup>(4)</sup>
3.2.5.5.1.	L1e — L7e	Description of cold start system:
3.2.5.6.	L1e — L7e	Auxiliary starting aid: yes/no <sup>(4)</sup>
3.2.5.7.	L1e — L7e	CI injection specific: yes/no
3.2.5.7.1.	L1e — L7e	Static injection timing <sup>(7)</sup> :
3.2.5.7.2.	L1e — L7e	Injection advance curve <sup>(7)</sup> :
3.2.6.		Gaseous fuelling system and control
3.2.6.1.	L1e — L7e	Brief description and schematic drawing of gaseous fuelling system(s):
3.2.6.2.	L1e — L7e	Liquefied petroleum gas (LPG) fuelling system: yes/no <sup>(4)</sup>
3.2.6.2.1.	L1e — L7e	Type-approval number according to UNECE Regulation No 67 (1):
3.2.6.2.2.	L1e — L7e	Electronic engine management control unit for LPG fuelling: yes/no <sup>(4)</sup>
3.2.6.2.2.1.	L1e — L7e	Emission-related adjustment possibilities:
3.2.6.2.3.	L1e — L7e	Further documentation:
* 3.2.6.2.3.1	L1e — L7e	Description of the safeguarding of the catalyst at switch-over from petrol to LPG or back:
3.2.6.2.3.2	L1e — L7e	System layout (electrical connections, vacuum connections, compensation hoses, etc.):
3.2.6.2.4.	L1e — L7e	Drawing of the symbol:
3.2.6.3.	L1e — L7e	Natural gas (NG) fuelling system: yes/no <sup>(4)</sup>
3.2.6.3.1.	L1e — L7e	Type-approval number according to UNECE Regulation No 110 (2):
3.2.6.3.2.	L1e — L7e	Electronic engine management-control unit for NG fuelling: yes/no <sup>(4)</sup>
3.2.6.3.2.1.	L1e — L7e	Emission-related adjustment possibilities:
3.2.6.3.3.	L1e — L7e	Further documentation:
* 3.2.6.3.3.1.	L1e — L7e	Description of the safeguarding of the catalyst at switch-over from petrol to NG or back:
3.2.6.3.3.2.	L1e — L7e	System layout (electrical connections, vacuum connections compensation hoses, etc.):
3.2.6.3.4.	L1e — L7e	Drawing of the symbol:
3.2.6.4.	L1e — L7e	Gaseous fuel: LPG/NG-H/NG-L/NG-HL <sup>(4)</sup> : yes/no <sup>(4)</sup>

<sup>(</sup>¹) OJ L 72, 14.3.2008, p. 1. (²) OJ L 120, 7.5.2011, p. 1.

Item No.	(Sub) categories	Detailed information	
3.2.6.4.1.	L1e — L7e	Pressure regulator(s) or vaporiser/pressure regulator(s) <sup>(4)</sup>	
* 3.2.6.4.1.1.	L1e — L7e	Number of pressure reduction stages:	
3.2.6.4.1.2.	L1e — L7e	Pressure in final stage, minimum: kPa — maximum: kPa	
3.2.6.4.1.3.	L1e — L7e	Number of main adjustment points:	
3.2.6.4.1.4.	L1e — L7e	Number of idle adjustment points:	
3.2.6.4.1.5.	L1e — L7e	Type-approval number:	
3.2.6.4.2.	L1e — L7e	Fuelling system: mixing unit/gas injection/liquid injection/direct injection <sup>(4)</sup>	
* 3.2.6.4.2.1.	L1e — L7e	Mixture strength regulation:	
3.2.6.4.2.2.	L1e — L7e	System description and/or diagram and drawings:	
3.2.6.4.2.3.	L1e — L7e	Type-approval number:	
3.2.6.4.3.	L1e — L7e	Mixing unit: yes/no <sup>(4)</sup>	
3.2.6.4.3.1.	L1e — L7e	Number:	
3.2.6.4.3.2.	L1e — L7e	Location:	
3.2.6.4.3.3.	L1e — L7e	Adjustment possibilities:	
3.2.6.4.3.4.	L1e — L7e	Type-approval number:	
3.2.6.4.4.	L1e — L7e	Inlet manifold injection: yes/no <sup>(4)</sup>	
3.2.6.4.4.1.	L1e — L7e	Injection: single-point/multi-point <sup>(4)</sup>	
3.2.6.4.4.2.	L1e — L7e	Injection: continuous/simultaneously timed/sequentially timed <sup>(4)</sup>	
3.2.6.4.5.	L1e — L7e	Injection equipment: yes/no <sup>(4)</sup>	
3.2.6.4.5.1.	L1e — L7e	Adjustment possibilities:	
3.2.6.4.5.2.	L1e — L7e	Type-approval number:	
3.2.6.4.6.	L1e — L7e	Supply pump: yes/no <sup>(4)</sup>	
3.2.6.4.6.1.	L1e — L7e	Type-approval number:	
3.2.6.4.7.	L1e — L7e	Injector(s):	
3.2.6.4.7.1.	L1e — L7e	Type-approval number:	
3.2.6.4.8.	L1e — L7e	Direct/port injection: yes/no <sup>(4)</sup>	
3.2.6.4.9.	L1e — L7e	Injection pump/pressure regulator: yes/no (4)	
3.2.6.4.9.1.	L1e — L7e	Type-approval number:	
3.2.6.4.10.	L1e — L7e	Separate electronic control unit (ECU) for gaseous fuelling system: yes/no <sup>(4)</sup>	
3.2.6.4.10.1.	L1e — L7e	Adjustment possibilities:	

Item No.	(Sub) categories	Detailed information			
3.2.6.4.10.2.	L1e — L7e	Software identification number(s):			
3.2.6.4.10.3.	L1e — L7e	Calibration verification number(s):			
3.2.6.5.	L1e — L7e	NG fuel-specific 6	equipment:		
3.2.6.5.1.	L1e — L7e	Variant 1 (only in compositions):	the case of approv	vals of engines for se	everal specific fuel
3.2.6.5.2.	L1e — L7e	Fuel composition:			
			Ove	rview	
		methane (CH <sub>4</sub> ):	basis:%mole	min%mole	max. %mole
		ethane (C <sub>2</sub> H <sub>6</sub> ):	basis:%mole	min%mole	max. %mole
		propane (C <sub>3</sub> H <sub>8</sub> ):	basis:%mole	min%mole	max. %mole
		butane (C <sub>4</sub> H <sub>10</sub> ):	basis:%mole	min%mole	max. %mole
		C <sub>5</sub> /C <sub>5</sub> +:	basis:%mole	min%mole	max. %mole
		oxygen (O <sub>2</sub> ):	basis:%mole	min%mole	max. %mole
		inert (N <sub>2</sub> , He, etc.):	basis:%mole	min%mole	max. %mole
3.2.6.5.3.	L1e — L7e	Gaseous fuel inject	ctor(s):		
3.2.6.5.4.	L1e — L7e	Variant 2 (only in the case of approvals for several specific fuel compositions):			
3.2.6.6.	L1e — L7e	Hydrogen fuel-specific equipment: yes/no <sup>(4)</sup>			
3.2.6.6.1.	L1e — L7e	EC type-approval number according to Regulation (EC) No 79/2009 of the European Parliament and of the Council (¹):			
* 3.2.6.6.2.	L1e — L7e	Further documentation			
3.2.6.6.3.	L1e — L7e	System layout (electrical connections, vacuum connections, compensation hoses, etc.):			
* 3.2.6.6.4.	L1e — L7e	Description of the safeguarding of the catalyst at switch-over from petrol to hydrogen/H <sub>2</sub> NG <sup>(4)</sup> or back:			
3.2.6.6.5.	L1e — L7e	Drawing of the symbol:			
3.2.6.7.	L1e — L7e	H <sub>2</sub> NG fuelling system: yes/no <sup>(4)</sup>			
3.2.6.7.1.	L1e — L7e	Percentage of hydrogen in the fuel (the maximum specified by the manufacturer):			
3.2.7.		Air-induction system			
3.2.7.1.	L1e — L7e	Brief description and schematic drawing of gaseous intake air-flow and induction system:			
3.2.7.2.	L1e — L7e	Intake manifold description and working principle (e.g. fixed length/variable length/swirl valves) <sup>(4)</sup> (include detailed drawings and/or photos):			

<sup>(1)</sup> Regulation (EC) No 79/2009 of the European Parliament and of the Council of 14 January 2009 on type-approval of hydrogen-powered motor vehicles, and amending Directive 2007/46/EC (OJ L 35, 4.2.2009, p. 32).

Item No.	(Sub) categories	Detailed information	
* 3.2.7.2.1.	L1e — L7e	Description and drawings of inlet pipes and their accessories (plenum chamber, heating device with control strategy, additional air intakes, etc.):	
3.2.7.3.	L1e — L7e	Intake air pressure charger: yes/no <sup>(4)</sup>	
3.2.7.3.1.	L1e — L7e	Brief description and schematic drawing of the intake air-pressure charger system:	
3.2.7.3.2.	L1e — L7e	Working and control principles:	
3.2.7.3.3.	L1e — L7e	Type(s) (turbo or supercharger, other) <sup>(4)</sup> :	
3.2.7.3.4.	L1e — L7e	Maximum intake air-charge pressure and flow-rate at maximum torque and power:	
3.2.7.4.	L1e — L7e	Waste gate: yes/no <sup>(4)</sup>	
3.2.7.5.	L1e — L7e	Intercooler: yes/no <sup>(4)</sup>	
3.2.7.5.1.	L1e — L7e	Type: air-air/air-water/other <sup>(4)</sup>	
* 3.2.7.5.2.	L1e — L7e	Intake depression at rated engine speed and at 100 % load (compression ignition engines only):kPa	
3.2.7.6.	L1e — L7e	Air filter, (drawings, photographs):	
3.2.7.7.	L1e — L7e	Intake air-silencer description (drawings, photographs):	
* 3.2.7.7.1.	L1e — L7e	Working principle:	
3.2.8.		Air-mass metering and control	
3.2.8.1.	L1e — L7e	Brief description and schematic drawing of air-mass metering and control system:	
3.2.8.2.	L1e — L7e	Mechanical throttle body: yes/no <sup>(4)</sup>	
3.2.8.3.	L1e — L7e	Electronic throttle control (ETC): yes/no <sup>(4)</sup>	
3.2.8.3.1.	L1e — L7e	Schematic drawing of electronic throttle control:	
* 3.2.8.3.1.2.	L1e — L7e	Description of ETC hardware redundancies regarding sensors/actuators/ electric power/ground/control electronics:	
3.2.9.		Spark delivery system and control	
3.2.9.1.	L1e — L7e	Brief description and schematic drawing of spark delivery and control system:	
3.2.9.1.1.	L1e — L7e	Working principle:	
	L1e — L7e	Ignition advance curve or map <sup>(7)</sup> at wide open throttle:	
3.2.9.1.3.	L1e — L7e	Static ignition timing <sup>(7)</sup> : degrees before TDC at maximum torque and power	
3.2.9.2.	L1e — L7e	Ion sense capability: yes/no <sup>(4)</sup>	
3.2.9.3.	L1e — L7e	Spark plugs:	
3.2.9.3.1.	L1e — L7e	Gap setting: mm	

Item No.	(Sub) categories	Detailed information
3.2.9.4.	L1e — L7e	Ignition coil(s):
* 3.2.9.4.1.	L1e — L7e	Working principle:
* 3.2.9.4.2.	L1e — L7e	Dwell angle and timing at wide open throttle:
3.2.10.		Powertrain cooling system and control
3.2.10.1.	L1e — L7e	Brief description and schematic drawing of powertrain cooling and control system:
3.2.10.2.	L1e — L7e	Cooling system: liquid: yes/no <sup>(4)</sup>
3.2.10.2.1.	L1e — L7e	Maximum temperature at outlet: K
3.2.10.2.2.	L1e — L7e	Nominal setting of the engine temperature control mechanism:
3.2.10.2.3.	L1e — L7e	Nature of liquid:
3.2.10.2.4.	L1e — L7e	Circulating pump(s): yes/no <sup>(4)</sup>
3.2.10.2.4.1.	L1e — L7e	Characteristics:
3.2.10.2.5.	L1e — L7e	Drive ratio(s):
3.2.10.2.6.	L1e — L7e	Description of the fan and its drive mechanism:
3.2.10.3.	L1e — L7e	Air cooling: yes/no <sup>(4)</sup>
3.2.10.3.1.	L1e — L7e	Reference point:
3.2.10.3.2.	L1e — L7e	Maximum temperature at reference point: K
3.2.10.3.3.	L1e — L7e)	Fan: yes/no <sup>(4)</sup>
3.2.10.3.3.1.	L1e — L7e	Characteristics:
3.2.10.3.3.2.	L1e — L7e	Drive ratio(s):
3.2.11.		Powertrain lubrication system and control
3.2.11.1.	L1e — L7e	Brief description and schematic drawing of powertrain lubrication and control system:
3.2.11.2.	L1e — L7e	Lubrication system configuration(s) (wet sump, dry sump, other, pump/injection into induction system/mixed with the fuel, etc.) <sup>(4)</sup> :
3.2.11.3.	L1e — L7e	Location of oil reservoir (if any):
3.2.11.4.	L1e — L7e	Feed system (pump/injection into induction system/mixed with the fuel, etc.) <sup>(4)</sup> :
3.2.11.5.	L1e — L7e	Lubricating pump: yes/no <sup>(4)</sup>
3.2.11.6.	L1e — L7e	Oil cooler: yes/no <sup>(4)</sup>
3.2.11.6.1.	L1e — L7e	Drawing
3.2.11.7.	L1e — L7e	Lubricant(s) characteristics:
3.2.11.8.	L1e — L7e	Lubricant mixed with the fuel: yes/no <sup>(4)</sup> :

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	Item No.	(Sub) categories	Detailed information
	3.2.11.8.1.	L1e — L7e	Percentage range of lubricant mixed with the fuel:
	3.2.12.		Exhaust system and control
	3.2.12.1.	L1e — L7e	Brief description and schematic drawing of exhaust devices for noise and tailpipe emission control:
	3.2.12.2.	L1e — L7e	Description and drawing of the exhaust manifold:
	3.2.12.3.	L1e — L7e	Description and detailed drawing of the exhaust device:
	3.2.12.4.	L1e — L7e	Maximum permissible exhaust back-pressure at rated engine speed and at 100 % load:
	3.2.12.5.	L1e — L7e	Type, marking of exhaust noise-abatement device(s):
	* 3.2.12.6.	L1e — L7e	Noise-reducing measures in the engine compartment and on the engine where relevant for external noise:
	3.2.12.7.	L1e — L7e	Location of the exhaust outlet:
	3.2.12.8.	L1e — L7e	Exhaust noise-abatement device containing fibrous materials: yes/no <sup>(4)</sup> :
	3.2.13.		Other electrical systems and control than those intended for the electrical propulsion
	3.2.13.1.	L1e — L7e	Rated voltage: V, positive/negative ground <sup>(4)</sup>
	3.2.13.2.	L1e — L7e	Generator: yes/no <sup>(4)</sup> :
	3.2.13.2.1.	L1e — L7e	Nominal output:
	3.2.13.3.	L1e — L7e	Battery(ies): yes/no <sup>(4)</sup>
	3.2.13.3.1.	L1e — L7e	Capacity and other characteristics (mass,):
	3.2.13.4.	L1e — L7e	Electric heating systems for the passenger compartment: yes/no <sup>(4)</sup>
	3.3.		Pure electric and hybrid electric propulsion and control
	3.3.1.	L1e — L7e	Electric vehicle configuration: pure electric/hybrid electric/manpower — electric <sup>(4)</sup> :
	3.3.2.	L1e — L7e	Brief description and schematic drawing of pure and hybrid electric propulsions and its control system(s):
	3.3.3.		Electric propulsion motor
	3.3.3.1.	L1e — L7e	Number of electric motors for propulsion:
	3.3.3.2.	L1e — L7e	Type (winding, excitation):
	3.3.3.3.	L1e — L7e	Operating voltage:
▼ <u>M1</u>			
	3.3.3.4.	L1e — L7e	15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> :
▼ <u>B</u>			
	3.3.4.		Propulsion batteries
	3.3.4.1.	L1e — L7e	Primary propulsion battery
	3.3.4.1.1.	L1e — L7e	Number of cells:
	3.3.4.1.2.	L1e — L7e	Mass:kg

Item No.	(Sub) categories	Detailed information
3.3.4.1.3.	L1e — L7e	Capacity: Ah (Amp-hours) / V
3.3.4.1.4.	L1e — L7e	Voltage:V
3.3.4.1.5.	L1e — L7e	Position in the vehicle:
3.3.4.2.	L1e — L7e	Secondary propulsion battery
3.3.4.2.1.	L1e — L7e	Number of cells:
3.3.4.2.2.	L1e — L7e	Mass: kg
3.3.4.2.3.	L1e — L7e	Capacity: Ah (Amp-hours) / V
3.3.4.2.4.	L1e — L7e	Voltage:V
3.3.4.2.5.	L1e — L7e	Position in the vehicle:
3.3.5.		Hybrid electric vehicle
3.3.5.1.	L1e — L7e	Engine or motor combination (number of electric motor(s) and/or combustion engine(s)/other) <sup>(4)</sup> :
3.3.5.2.	L1e — L7e	Category of hybrid electric vehicle: off-vehicle charging/not off-vehicle charging:
3.3.5.3.	L1e — L7e	Operating mode switch: with/without <sup>(4)</sup>
3.3.5.4.	L1e — L7e	Selectable modes: yes/no <sup>(4)</sup>
3.3.5.5.	L1e — L7e	Pure fuel consuming: yes/no <sup>(4)</sup>
3.3.5.6.	L1e — L7e	Vehicle propelled with fuel cell: yes/no <sup>(4)</sup>
3.3.5.7.	L1e — L7e	Hybrid operation modes: yes/no <sup>(4)</sup> (if yes, short description):
3.3.6.		Energy storage device
3.3.6.1.	L1e — L7e	Description: (battery, capacitor, flywheel/generator) <sup>(4)</sup>
3.3.6.2.	L1e — L7e	Identification number:
* 3.3.6.3.	L1e — L7e	Kind of electrochemical couple:
3.3.6.4.	L1e — L7e	Energy (for battery: voltage and capacity Ah in 2h, for capacitor: J,, for flywheel/generator: J,,):
3.3.6.5.	L1e — L7e	Charger: on-board/external/without <sup>(4)</sup>
3.3.7.		Electric motor (describe each type of electric motor separately)
3.3.7.1.	L1e — L7e	Primary use: propulsion motor/generator <sup>(4)</sup>
3.3.7.2.	L1e — L7e	When used as propulsion motor: single-/multi-motors (number) <sup>(4)</sup> :
3.3.7.3.	L1e — L7e	Working principle:
3.3.7.4.	L1e — L7e	Direct current/alternating current/number of phases:
3.3.7.5.	L1e — L7e	Separate excitation/series/compound <sup>(4)</sup> :

Item No.	(Sub) categories	Detailed information	
3.3.7.6.	L1e — L7e	Synchronous/asynchronous <sup>(4)</sup> :	
3.3.8.		Electric motor control unit	
3.3.8.1.	L1e — L7e	Identification number:	
3.3.9.		Power controller	
3.3.9.1.	L1e — L7e	Identification number:	
3.4.		Other engines, electric motors or combinations (specific information concerning the parts of these motors)	
3.4.1.		Cooling system (temperatures permitted by the manufacturer)	
3.4.1.1.	L1e — L7e	Liquid cooling:	
3.4.1.1.1.	L1e — L7e	Maximum temperature at outlet: K	
3.4.1.2.	L1e — L7e	Air cooling:	
3.4.1.2.1.	L1e — L7e	Reference point:	
3.4.1.2.2.	L1e — L7e	Maximum temperature at reference point:	
3.4.2.		Lubrication system	
3.4.2.1.	L1e — L7e	Description of lubrication system:	
3.4.2.2.	L1e — L7e	Location of oil reservoir (if any):	
3.4.2.3.	L1e — L7e	Feed system (pump/injection into induction system/mixed with the fuel, etc.) <sup>(4)</sup> :	
3.4.2.4.	L1e — L7e	Lubricant mixed with the fuel:	
3.4.2.4.1.	L1e — L7e	Percentage:	
3.4.2.5.	L1e — L7e	Oil cooler: yes/no <sup>(4)</sup> :	
* 3.4.2.5.1.	L1e — L7e	Drawing(s):	
3.5.		Drive-train and control <sup>(13)</sup>	
3.5.1.	L1e — L7e	Brief description and schematic drawing of the vehicle drive-train and its control system (gear shift control, clutch control or any other element of drive-train):	
3.5.2.		Clutch	
3.5.2.1.	L1e — L7e	Brief description and schematic drawing of the clutch and its control system:	
3.5.3.		Transmission	
3.5.3.1.	L1e — L7e	Brief description and schematic drawing of gear shift system(s) and its control:	
3.5.3.2.	L1e — L7e	Drawing of the transmission:	
3.5.3.3.	L1e — L7e	Type (mechanical, hydraulic, electric, manual/manual automated/automatic/CVT/ other (indicate).) <sup>(4)</sup> :	

▼	В

<b>▼</b> <u>B</u>							
	Item No.	(Sub) categories	Detailed information				
	3.5.3.4.	L1e — L7e	A brief description of the electrical/electronic components (if any):				
	3.5.3.5.	L1e — L7e	Location relative to the engine:				
	3.5.3.6.	L1e — L7e	Method of control:				
<b>▼</b> <u>M1</u>							
	3.5.4.	L1e — L7e	Gear ratios				
			Overview gear ratios				
			Gear <sup>(24)</sup>	Internal trans- mission ratios (ratios of engine to transmission output shaft revolutions)	Final drive ratio(s) (ratio of transmission output shaft to driven wheel revolutions)	Total gear ratios	Ratio (engine speed/vehicle speed) for manual trans- mission only
			1 2 3 				
			Reverse				
<b>▼</b> <u>B</u>	3.5.4.1.	L3e-AxE,	Final drive rat	tio:			
		L3e-AxT					
	3.5.4.2.	L3e-AxE, L3e-AxT	Overall gear ratio in highest gear:				
	3.6.		Safe-cornering device				
	3.6.1.	L1e — L7e equipped with twinned wheels, L2e, L5e, L6e, L7e	Safe-cornering device (Annex VIII to Regulation (EU) No 168/2013: yes/no <sup>(4)</sup> ; differential/other <sup>(4)</sup>				
	3.6.2.	L1e — L7e equipped with twinned wheels, L2e, L5e, L6e, L7e	Differential lock: yes/no/optional <sup>(4)</sup>				
	3.6.3.	L1e — L7e	Brief description and schematic drawing of the safe-cornering device, the differential lock and their control systems:				
	3.7.		Suspension and control				
	3.7.1.	L1e — L7e	Brief description and schematic drawing of suspension and its control system:				
	3.7.2.	L1e — L7e	Drawing of the suspension arrangements:				
	3.7.3.	L1e — L7e	Level adjustme	ent: yes/no/opt	ional <sup>(4)</sup>		
		-	-				

Item No.	(Sub) categories	Detailed information
3.7.4.	L1e — L7e	Brief description of the electrical/electronic components:
3.7.5.	L1e — L7e	Stabilisers: yes/no/optional <sup>(4)</sup>
3.7.6.	L1e — L7e	Shock absorbers: yes/no/optional <sup>(4)</sup>
3.8.		Passenger-compartment heating system and air-conditioning
3.8.1.		Passenger-compartment heating system
3.8.1.1.	L2e, L5e-B, L6e-B, L7e	An overall drawing of the heating system giving its location on the vehicle (and the arrangement of the sound damping devices (including the position of the heat exchange points)):
3.8.1.2.	L2e, L5e-B, L6e-B, L7e	An overall drawing of the heat-exchanger used in systems utilising the heat from the exhaust gases, or of the parts where that exchange takes place (in the case of heating systems using the heat provided by the engine cooling air):
3.8.1.3.	L2e, L5e-B, L6e-B, L7e	A sectional drawing of the heat-exchanger or parts where heat exchange takes place, together with a statement of the wall thickness, of the materials used and the characteristics of their surface:
3.8.1.4.	L2e, L5e-B, L6e-B, L7e	Specifications regarding the method of manufacture and technical data relating to other major components of the heating system, such as the fan:
3.8.2.		Air-conditioning
3.8.2.1.	L2e, L5e-B, L6e-B, L7e	Brief description and schematic drawing of air-conditioning and its control system:
3.8.2.2.	L2e, L5e-B, L6e-B, L7e	Gas used as refrigerant in the air-conditioning system:
3.8.2.3.	L2e, L5e-B, L6e-B, L7e	The air-conditioning system is designed to contain fluorinated greenhouse gases with global warming potential higher than 150: yes/no <sup>(4)</sup> . If Yes, fill in the following sections:
3.8.2.3.1.	L2e, L5e-B, L6e-B, L7e	Drawing and brief description of the air-conditioning system, including the reference or part number and material of the leak components:
3.8.2.3.2.	L2e, L5e-B, L6e-B, L7e	Leakage of the air-conditioning system
3.8.2.3.3.	L2e, L5e-B, L6e-B, L7e	Reference or part number and material of the components of the system and test information (e.g. test report number, Type-approval number, etc.):
3.8.2.3.4.	L2e, L5e-B, L6e-B, L7e	Overall leakage/year of the entire system: g/year
3.9.		Cycles designed to pedal
3.9.1.	L1e	Ratio manpower/electric power:
3.9.2.	L1e	Maximum assistance factor:

<u> </u>			
	Item No.	(Sub) categories	Detailed information
	3.9.3.	L1e	Maximum vehicle speed for which the electric motor gives assistance:
	3.9.4.	L1e	Switch-off distance: km
	4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION PERFORMANCE
	4.0		General information on environmental and propulsion performance
<b>▼</b> <u>M2</u>			
	4.0.1.	L1e — L7e	Environmental step: Euro (3/4/5/5+) (4)
<b>▼</b> <u>M1</u>			
	4.0.2.	L1e — L7e	Fuel consumption (provide details for each reference fuel tested)
	4.0.3.	L1e — L7e	CO <sub>2</sub> emissions <sup>(25)</sup> :
	4.0.4.	L1e — L7e	Energy consumption <sup>(25)</sup> :
	4.0.5.	L1e — L7e	Electric range <sup>(25)</sup> km
<b>▼</b> <u>B</u>			
	4.1.		Tailpipe emission-control system
	4.1.1.	L1e — L7e	Brief description and schematic drawing of the tailpipe emission-control system and its control:
	4.1.2.		Catalytic converter
	4.1.2.1.	L1e — L7e	Configuration, number of catalytic converters and elements (information to be provided for each separate unit):
	4.1.2.2.	L1e — L7e	Drawing with dimensions, shape and volume of the catalytic converter(s):
	4.1.2.3.	L1e — L7e	Catalytic reaction:
	* 4.1.2.4.	L1e — L7e	Total charge of precious metals:
	* 4.1.2.5.	L1e — L7e	Relative concentration:
	* 4.1.2.6.	L1e — L7e	Substrate (structure and material):
	* 4.1.2.7.	L1e — L7e	Cell density:
	* 4.1.2.8.	L1e — L7e	Casing for the catalytic converter(s):
	4.1.2.9.	L1e — L7e	Location of the catalytic converter(s) (place and reference distance in the exhaust line):
	4.1.2.10.	L1e — L7e	Catalyst heat-shield: yes/no <sup>(4)</sup>
	4.1.2.11.	L1e — L7e	Brief description and schematic drawing of the regeneration system/ method of exhaust after-treatment systems and its control system:
	* 4.1.2.11.1.	L1e — L7e	Normal operating temperature range: K
	4.1.2.11.2.	L1e — L7e	Consumable reagents: yes/no <sup>(4)</sup>

Item No.	(Sub) categories	Detailed information
4.1.2.11.3.	L1e — L7e	Brief description and schematic drawing of the reagent flow (wet) system and its control system:
4.1.2.11.4.	L1e — L7e	Type and concentration of reagent needed for catalytic action:
* 4.1.2.11.5.	L1e — L7e	Normal operational temperature range of reagent:K
4.1.2.11.6.	L1e — L7e	Frequency of reagent refill: continuous/maintenance <sup>(4)</sup>
4.1.2.12.	L1e — L7e	Identifying part number:
4.1.3.		Oxygen sensor(s)
4.1.3.1.	L1e — L7e	Oxygen sensor component(s) drawing(s):
4.1.3.2.	L1e — L7e	Drawing of exhaust device with oxygen sensor location(s) (dimensions relative to exhaust valves):
4.1.3.3.	L1e — L7e	Control range(s):
4.1.3.4.	L1e — L7e	Identifying part number(s):
4.1.3.5.	L1e — L7e	Description of oxygen sensor heating system and heating strategy:
4.1.3.6.	L1e — L7e	Oxygen sensor heat shield(s): yes/no <sup>(4)</sup>
4.1.4.		Secondary air-injection (air-inject in exhaust)
4.1.4.1.	L1e — L7e	Brief description and schematic drawing of the secondary air-injection system and its control system:
4.1.4.2.	L1e — L7e	Configuration (mechanical, pulse air, air pump etc.) <sup>(4)</sup> :
4.1.4.3.	L1e — L7e	Working principle:
4.1.5.		External exhaust gas recirculation (EGR)
4.1.5.1.	L1e — L7e	Brief description and schematic drawing of the EGR system (exhaust flow) and its control system:
4.1.5.2.	L1e — L7e	Characteristics:
4.1.5.3.	L1e — L7e	Water-cooled EGR system: yes/no <sup>(4)</sup>
4.1.5.4.	L1e — L7e	Air-cooled EGR system: yes/no <sup>(4)</sup>
4.1.6.		Particulate filter
4.1.6.1.	L1e — L7e	PT component drawing with dimensions, shape and capacity of the particulate filter:
4.1.6.2.	L1e — L7e	Design of the particulate filter:
4.1.6.3.	L1e — L7e	Brief description and schematic drawing of the particulate filter and its control system:
4.1.6.4.	L1e — L7e	Location (reference distance in the exhaust line):
4.1.6.5.	L1e — L7e	Method or system of regeneration, description and drawing:
4.1.6.6.	L1e — L7e	Identifying part number:

Item No.	(Sub) categories	Detailed information
4.1.7.		Lean NOx trap
4.1.7.1.	L1e — L7e	Operation principle of lean NOx trap:
4.1.8.		Additional tailpipe emission-control devices (if any not covered under another heading)
4.1.8.1.	L1e — L7e	Working principle:
4.2.		Crankcase emission control system
4.2.1.	L1e — L7e	Configuration of crank-case gas recycling system (breather system, positive crank-case ventilation system, other)(4) (description and drawings).
4.3.		Evaporative emission control system
4.3.1.	L1e — L7e	Evaporative emissions control system: yes/no <sup>(4)</sup>
4.3.2.	L1e — L7e	Drawing of the evaporative control system
4.3.3.	L1e — L7e	Drawing of the canister (including dimensions and indicating vent and purge mechanism)
4.3.4.	L1e — L7e	Working capacity: g
4.3.5.	L1e — L7e	Adsorption material: (e.g. charcoal, carbon, synthetic,)
4.3.6.	L1e — L7e	Housing material: (e.g. plastic, steel,)
4.3.7.	L1e — L7e	Schematic drawing of the fuel tank, indicating capacity and material:
4.3.8.	L1e — L7e	Drawing of the heat-shield between tank and exhaust device:
4.4.		Additional information on environmental and propulsion unit performance
4.4.1.	L1e — L7e	Description and/or schematic drawings of additional pollution-control devices:
4.4.2.	L1e — L7e	Location of the coefficient of absorption symbol (compression-ignition engines only):
4.4.3.	L1e — L7e	Applicable information document set out in respectively UN Regulation No 9, 41 or 63 shall supplement this information document with regard to the sound level.
4.4.4.	L1e — L7e	Applicable information document set out in respectively UN Regulation No 92 shall supplement this information document with regards to the noise-abatement devices installed on the vehicle.
5.		VEHICLE PROPULSION FAMILY
5.1.	L1e — L7e	To define the vehicle propulsion family, the manufacturer shall submit the information required for classification criteria set out in point 3 of Annex XI to Commission Delegated Regulation (EU) No 134/2014, if not already provided in the information document.

Item No.	(Sub) categories	Detailed information
6.		INFORMATION ON FUNCTIONAL SAFETY
6.1.		Audible warning devices
6.1.1.	L1e — L7e	Summary description of device(s) used and their purpose:
6.1.2.	L1e — L7e	Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle:
6.1.3.	L1e — L7e	Details of the method of attachment, including the part of the vehicle structure to which the audible warning device(s) is (are) attached:
6.1.4.	L1e — L7e	Electrical/pneumatic circuit diagram:
6.1.4.1.	L1e — L7e	Voltage: AC/DC <sup>(4)</sup>
6.1.4.2.	L1e — L7e	Rated voltage or pressure:
6.1.5.	L1e — L7e	Drawing of the mounting device:
6.2.		Braking, including anti-lock and combined braking systems
6.2.1.	Lle — L7e	Characteristics of the brakes, 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, levers, pedals (4):
6.2.2.	L1e — L7e	Operating diagram, description and/or drawing of the braking system, including details and drawings of the transmission and controls as well as a brief description of the electrical and/or electronic components used in the braking system <sup>(4)</sup> :
6.2.2.1.	L1e — L7e	Front, rear and sidecar brakes, disc and/or drum <sup>(4)</sup> :
6.2.2.2.	L1e — L7e	Parking braking system:
6.2.2.3.	L1e — L7e	Any additional braking system:
6.2.3.	L1e — L7e	Vehicle is equipped to tow a trailer with no brake/overrun brake/electric/pneumatic/hydraulic service brakes: yes/no <sup>(4)</sup> :
6.2.4.	L1e — L7e	Anti-lock/Combined braking system
6.2.4.1.	L1e — L7e	Anti-lock braking system: yes/no/optional <sup>(4)</sup>
6.2.4.2.	L1e — L7e	Combined braking system: yes/no/optional <sup>(4)</sup>
6.2.4.3.	L1e — L7e	Anti-lock and combined braking system: yes/no/optional <sup>(4)</sup>
6.2.4.4.	L1e — L7e	Schematic drawing(s):
6.2.5.	L1e — L7e	Hydraulic reservoir(s) (volume and location):
6.2.6.	L1e — L7e	Particular characteristics of the braking system(s)
6.2.6.1.	L1e — L7e	Brake shoes and/or pads <sup>(4)</sup> :
6.2.6.2.	L1e — L7e	Linings and/or pads (indicate make, type, grade of material or identification mark):

Item No.	(Sub) categories	Detailed information
6.2.6.3.	L1e — L7e	Brake levers and/or pedals <sup>(4)</sup> :
6.2.6.4.	L1e — L7e	Other devices (where applicable): drawing and description:
6.3.		Electrical safety
6.3.1.	L1e — L7e	Brief description of the power circuit components installation and drawings/photographs showing the location of the power circuit components installation:
6.3.2.	Lle — L7e	Schematic diagram of all electrical functions included in power circuit:
6.3.3.	L1e — L7e	Working voltage(s) (V):
6.3.4.	L1e — L7e	Description of protection against electric-shocks:
6.3.5.	L1e — L7e	Fuse and/or circuit breaker yes/no/optional <sup>(4)</sup>
6.3.5.1.	L1e — L7e	Diagram showing the functional range:
6.3.6.	L1e — L7e	Configuration of power wiring harness:
6.4.		Front and rear protective structures
6.4.1.		Front protective structure
6.4.1.1.	L1e — L7e	Detailed technical description (including photographs or drawings):
6.4.1.2.	L1e — L7e	Materials used:
6.4.2.		Rear protective structure
6.4.2.1.	L1e — L7e	Detailed technical description (including photographs or drawings):
6.4.2.2.	L1e — L7e	Materials used:
6.5.		Glazing, windscreen wipers and washers, and defrosting and demisting systems
6.5.1.		Windscreen
6.5.1.1.	L2e, L5e, L6e, L7e	Materials used:
6.5.1.2.	L2e, L5e, L6e, L7e	Method of mounting:
6.5.1.3.	L2e, L5e, L6e, L7e	Angle of inclination:
6.5.1.4.	L2e, L5e, L6e, L7e	Windscreen accessories and the position in which they are fitted, together with a brief description of any electrical/electronic components:
6.5.1.5.	L2e, L5e, L6e, L7e	Drawing of the windscreen with dimensions:
6.5.2.		Other windows
6.5.2.1.	L2e, L5e, L6e, L7e	Materials used:
6.5.2.2	L2e, L5e, L6e, L7e	A brief description of the electrical/electronic components (if any) of the window lifting mechanism:

Item No.	(Sub) categories	Detailed information						
6.5.3.		Opening roof glazing						
6.5.3.1.	L2e, L5e, L6e, L7e	Materials used:						
6.5.4.		Other glass panes						
6.5.4.1.	L2e, L5e, L6e, L7e	Materials used:						
6.6.		Windscreen wiper(s)						
6.6.1.	L2e, L5e, L6e, L7e	Detailed technical description (including photographs or drawings):						
6.7.		Windscreen washer						
6.7.1.	L2e, L5e, L6e, L7e	Detailed technical description (including photographs or drawings):						
6.7.2.	L2e, L5e, L6e, L7e	Capacity of the reservoir:						
6.8.		Defrosting and demisting						
6.8.1.	L2e, L5e, L6e, L7e	Detailed technical description (including photographs or drawings):						
6.9.		Driver-operated controls including identification of controls, tell-tales and indicators						
6.9.1.	L1e — L7e	Arrangement and identification of controls, tell-tales and indicators:						
6.9.2.	L1e — L7e	Photographs and/or drawings of the arrangement of symbols and controls, tell-tales and indicators:						
6.9.3.	L1e — L7e	Controls, tell-tales and indicators for which, when fitted, identification is mandatory, including the identification symbols to be used for that purpose:						
6.9.4.	L1e — L7e	Summary table: the vehicle is equipped with the following driver-operated controls, including indicators and tell-tales <sup>(4)</sup>						
		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 (+) Control / indicator ed by symbol able (+) Control / indicator ed by symbol ed by symbol able (+) Control / indicator ed by symbol						
		1 Master light						
		2 Dipped-beam head						
		lamps  3 Mainbeam head lamps						

Item No.	(Sub) categories			De	tailed info	rmation			
		Symbol No	Device	Control / indicator available (+)	Identified by symbol (+)	Where	Tell-tale avail- able (+)	Identified by symbol	Where (**)
		4	Position (side) lamps						
		5	Front fog lamps						
		6	Rear fog lamp						
		7	Head- lamp levelling device						
		8	Parking lamps						
		9	Direction indicators						
		10	Hazard warning						
		11	Wind- screen wiper						
		12	Wind- screen washer						
		13	Wind- screen wiper and washer						
		14	Head- lamp cleaning device						
		15	Wind- screen demisting and defrosting						
			<u> </u>	I		<u> </u>			<u> </u>

Item No.	(Sub) categories	Detailed information							
		Symbol No	Device	Control / indicator available (+)	Identified by symbol (+)	Where (++)	Tell-tale avail- able (+)	Identified by symbol (+)	Where (**)
		16	Rear window demisting and defrosting						
		17	Venti- lating fan						
		18	Diesel pre-heat						
		19	Choke						
		20	Brake failure						
		21	Fuel level						
		22	Battery charging condition						
		23	Engine coolant temperature						
		24	Malfunction indicator light(MI)-						
		o =	yes no or not ser optional. directly on in close vicin	control, i		or tell-ta	le		
6.9.5.	Lle — L7e	Contro cation	ls, tell-tales is optional,	and ind and sym	icators f abols wh be ident	ich shall	h, when be used	fitted, i l if they	dentifi- are to
		Sym- bol No	Device	ndicator	dentified by symbol (*)	Where (++)	Tell-tale avail- able (+)	Identified by symbol (+)	Where (**)
		1	Parking brake						

Item No.	(Sub) categories	Detailed information							
		Sym- bol No	Device	Control / indicator available (+)	Identified by symbol (+)	Where (**)	Tell-tale avail- able (+)	Identified by symbol	Where (**)
		2	Rear window wiper						
		3	Rear window washer						
		4	Rear window wiper and washer						
		5	Inter- mittent wind- screen wiper						
		6	Audible warning device (horn)						
		7	Front hood (bonnet)						
		8	Rear hood (boot)						
		9	Seat belt						
		10	Engine oil pressure						

Item No.	(Sub) categories	Detailed information							
		Sym- bol No	Device	Control / indicator available (+)	Identified by symbol (†)	Where	Tell-tale avail- able (+)	Identified by symbol	Where (++)
		11	Unleaded petrol						
		12							
		13							
		- o ( <sup>++</sup> ) d	= yes = no or not s = optional. = directly o = in close vi	n control,		or tell-ta	ale		
6.10.		Speed	ometer and	odomete	er				
6.10.1.		Speed	ometer						
6.10.1.1.	L1e — L7e	Photog	graphs and/o	or drawing	gs of the o	complete	system: .		
6.10.1.2.	L1e — L7e	Vehic	le speed ran	ge display	/ed:	•••••		•••••	•••••
6.10.1.3.	L1e — L7e	Tolera	ince of the i	neasuring	mechanis	m of the	speedom	eter:	
6.10.1.4.	L1e — L7e	Techn	ical constan	t of the s	peedomete	er:		••••••	
6.10.1.5.	L1e — L7e	Metho	od of operati	on and de	escription	of the di	rive mech	anism:	
6.10.1.6.	L1e — L7e	Overa	ll transmissi	on ratio o	of the driv	e mechai	nism:		
6.10.2.		Odom	eter						
6.10.2.1.	L1e — L7e	Tolera	ince of the i	neasuring	mechanis	m of the	odomete	r:	
6.10.2.2.	L1e — L7e	Metho	od of operati	on and de	escription	of the di	rive mech	anism:	
6.11.			lation of li ning of light		ght-signal	lling dev	vices, inc	luding a	utomatic
6.11.1.	L1e — L7e	type-a	of all device pproval man , colour, the	rk(s), the	maximum	n intensit	ty of the	main-bea	m head-
6.11.2.	L1e — L7e		am showing						
6.11.3.	L1e — L7e	Hazar	d warning la	amps:		•••••	•••••	••••••	
6.11.4.	L1e — L7e		description of ag system ar						

Item No.	(Sub) categories	Detailed information
6.11.5.	L1e — L7e	For every lamp and reflector, supply the following information (in writing and/or by diagram):
6.11.5.1.	L1e — L7e	Drawing showing the extent of the illuminating surface:
6.11.5.2.	L1e — L7e	Method used to define the apparent surface in accordance with point 2.10 of UNECE Regulation No 48 (OJ L 323, 6.12.2011, p. 46):
6.11.5.3.	L1e — L7e	Axis of reference and centre of reference:
6.11.5.4.	L1e — L7e	Method of operation of concealable lamps:
6.11.6.	L1e — L7e	Description/drawing and type of headlamp levelling device (e.g. automatic, stepwise manually adjustable, continuously manually adjustable) <sup>(4)</sup> :
6.11.6.1.	L1e — L7e	Control device:
6.11.6.2.	L1e — L7e	Reference marks:
6.11.6.3.	L1e — L7e	Marks assigned for loading conditions:
6.12.		Rearward visibility
6.12.1.		Rear-view mirrors (stating for each mirror)
6.12.1.1.	L1e — L7e	Drawing(s) for the identification of the mirror showing the position of the mirror relative to the vehicle structure:
6.12.1.2.	L1e — L7e	Details of the method of attachment including that part of the vehicle structure to which it is attached:
6.12.1.3.	L1e — L7e	A brief description of the electronic components of the adjustment system:
6.12.2.	L1e — L7e	Devices for indirect vision other than mirrors
6.12.2.1.	L1e — L7e	Description of the device:
6.12.2.2.	Lle — L7e	In the case of a camera-monitor device, the detection distance (mm), contrast, luminance range, glare correction, display performance (black and white/colour <sup>(4)</sup> ), image repetition frequency, luminance reach of the monitor <sup>(4)</sup> :
6.12.2.3.	L1e — L7e	Sufficiently detailed drawings to identify the complete device, including installation instructions; the position for the EU type-approval mark has to be indicated on the drawings:
6.13.		Rollover protective structure (ROPS)
6.13.1.	L7e-B2	Detailed technical description, position, fixing, etc. (including photographs or drawings):
6.13.2.		ROPS by Frame <sup>(4)</sup>
6.13.2.1.	L7e-B2	Internal and external dimensions:
6.13.2.2.	L7e-B2	Material(s) and method of construction:
6.13.3.		ROPS by Cab <sup>(4)</sup>
6.13.3.1.	L7e-B2	Other weather protection arrangements (description):

Item No.	(Sub) categories			Det	ailed information		
6.13.3.2.	L7e-B2	Internal and ex	ternal d	limensio	ns:		
6.13.4.		ROPS by Roll i	bar(s) n	nounted	at front/rear <sup>(4)</sup> ,	fold-down/i	not fold down <sup>(4)</sup>
6.13.4.1.	L7e-B2	Dimensions:	•••••	•••••		•••••	
6.13.4.2.	L7e-B2	Material(s) and	method	d of cor	nstruction:		
6.14.		Safety belts ar	id/or o	ther res	traints		
6.14.1.	L2e, L4e, L5e-B, L6e-B, L7e	Number and powhich they can (L = left side,	be use	d, pleas	se fill out table		ms and seats on
		Safety	belt co	onfigura	tion and assoc	ciated infor	mation
					Complete EU type-approval mark	Variant, if applicable	Belt adjustment device for height (indicate yes/no/optional)
		First row of seats		L			
		Scats		С			
			(	R			
		Second row of seats		C			
			l	R			
		L = left, C= cent	re, R=ri	ght			
6.14.2.	L2e, L4e, L5e-B, L6e-B, L7e						e attached to the ce:
6.14.3.	L2e, L4e, L5e-B, L6e-B, L7e	Number and lo	cation of	of the a	nchorages:		
6.14.4.	L2e, L4e, L5e-B, L6e-B, L7e	Brief descriptio	n of el	ectrical/	electronic comp	oonents:	
6.15.		Safety belt and	chorage	es			
6.15.1.	L2e, L4e, L5e-B, L6e-B, L7e		mension	ns of the	e anchorages, to	gether with	he true, effective an indication of
6.15.2.	L2e, L4e, L5e-B, L6e-B, L7e		ed (toge	ther wit	h a statement o	n the nature	ructure to which of the materials

Item No.	(Sub) categories			Detaile	d inforn	nation			
6.15.3.	L2e, L4e, L5e-B, L6e-B, L7e	Designation of the types of belts <sup>(14)</sup> authorised for attachment to the anchorages on the vehicle:							
		Safety-belt anchorage configuration and associated information							
			Anchorage location						
							Vehicle structure	Seat structure	
		First row	of seats						
		Right- hand seat	{	Lower anchorages	{	outboard inboard			
			l	Upper anchorages					
		Centre seat		Lower anchorages	{	right left			
				Upper anchorages					
		Left- hand seat		Lower anchorages	{	outboard inboard			
				Upper anchorages					
		Second ro	w of se	ats					
		Right- hand seat	<b>\</b>	Lower anchorages	{	outboard inboard			
				Upper anchorages					
		Centre seat	<b>\</b>	Lower anchorages	{	right left			
				Upper anchorages					
		Left- hand seat	<b>\</b>	Lower anchorages	{	outboard inboard			
				Upper anchorages					
6.15.4.	L2e, L4e, L5e-B, L6e-B, L7e	Type-appr	oval ma	ark for each pos	ition: .				
6.15.5.	L2e, L4e, L5e-B, L6e-B, L7e			(example: seat-	_	-	-	-	
6.15.6.	L2e, L4e, L5e-B, L6e-B, L7e	location as	nd dime	or drawings of t	chorag	es, together	with an in	dication of	
6.15.7.	L2e, L4e, L5e-B, L6e-B, L7e	Observatio	on:						

Item No.	(Sub) categories	Detailed information
6.16.		Seating positions (saddles and seats)
6.16.1.	L1e — L7e	Number of seating positions:
6.16.1.1.	L2e, L5e, L6e, L7e	Location and arrangement <sup>(8)</sup> :
6.16.2.	L1e — L7e	Seating position configuration: seat/saddle <sup>(4)</sup>
6.16.3.	L1e — L7e	Description and drawings of:
6.16.3.1.	L1e — L7e	The seats and their anchorages:
6.16.3.2.	L1e — L7e	The adjustment system:
6.16.3.3.	L1e — L7e	The displacement and locking systems:
6.16.3.4.	L1e — L7e	The seat-belt anchorages incorporated in the seat structure:
6.16.3.5.	L1e — L7e	The parts of the vehicle used as anchorages:
6.16.4.	L2e, L4e, L5e-B, L6e-B, L7e	Coordinates or drawing of the R-point(s) of all seating positions:
6.16.4.1.	L2e, L4e, L5e-B, L6e-B, L7e	Driver's seat:
6.16.4.2.	L2e, L4e, L5e- B, L6e-B, L7e	All other seating positions:
6.16.5.	L1e — L7e	Design torso angle:
6.16.5.1.	L1e — L7e	Driver's seat:
6.16.5.2.	L1e — L7e	All other seating positions:
6.16.6.	L1e — L7e	Range of seat adjustment:
6.16.6.1.	L1e — L7e	Driver's seat:
6.16.6.2.	L1e — L7e	All other seating positions:
6.17.		Steer-ability, cornering properties and turn-ability
6.17.1.	L1e — L7e	Schematic diagram of steered axle(s) showing steering geometry:
6.17.2.		Transmission and control of steering
6.17.2.1.	L1e — L7e	Configuration of steering transmission (specify for front and rear):
6.17.2.2.	L1e — L7e	Linkage to wheels (including other than mechanical means; specify for front and rear):
6.17.2.2.1.	L1e — L7e	A brief description of the electrical/electronic components:
6.17.2.3.	L1e — L7e	Diagram of the steering transmission:
6.17.2.4.	L2e, L5e, L6e, L7e	Schematic diagram(s) of the steering control(s):
6.17.2.5.	L2e, L5e, L6e, L7e	Range and method of adjustment of the steering control(s):
6.17.2.6.	L2e, L5e, L6e, L7e	Method of assistance:

Item No.	(Sub) categories	Detailed information
6.17.3.		Maximum steering angle of the wheels
6.17.3.1.	L1e — L7e	To the right: degrees; number of turns of the steering wheel (or equivalent data):
6.17.3.2.	L1e — L7e	To the left: degrees; number of turns of the steering wheel (or equivalent data):
6.18.		Tyres/wheels combination
6.18.1.		Tyres:
6.18.1.1.		Size designation
6.18.1.1.1.	L1e — L7e	Axle 1:
6.18.1.1.2.	L1e — L7e	Axle 2:
6.18.1.1.3.	L4e	Sidecar wheel:
6.18.1.2.	L1e — L7e	Minimum load-capacity index: with the maximum load on each tyre:kg
6.18.1.3.	L1e — L7e	Minimum-speed category symbol compatible with the theoretical maximum design vehicle speed:
6.18.1.4.	L1e — L7e	Tyre pressure(s) as recommended by the vehicle manufacturer: kPa
6.18.2.		Wheels:
6.18.2.1.	L1e — L7e	Rim size(s):
6.18.2.2.	L1e — L7e	Categories of use compatible with the vehicle:
6.18.2.3.	L1e — L7e	Nominal rolling circumference:
6.19.		Vehicle maximum speed limitation plate and its location on the vehicle
6.19.1.	L7e-B1 and L7e-B2	Maximum speed limitation plate (indicate the reflecting material used; drawings and photos may be used as appropriate):
6.19.2.	L7e-B1 and L7e-B2	Location of maximum speed limitation plate (indicate variants where necessary; drawings and photos may be used as appropriate):
6.19.3.	L7e-B1 and L7e-B2	Height above road surface, upper edge: mm
6.19.4.	L7e-B1 and L7e-B2	Height above road surface, lower edge: mm
6.19.5.	L7e-B1 and L7e-B2	Distance of the centre line from the longitudinal median plane of the vehicle:
6.19.6.	L7e-B1 and L7e-B2	Distance from the left vehicle edge: mm
6.20.		Vehicle occupant protection, including interior fittings and vehicle doors
6.20.1.		Bodywork
6.20.1.1.	L2e, L5e-B, L6e-B, L7e	Materials used and methods of construction:
6.20.2.		Occupant doors, latches and hinges
6.20.2.1.	L2e, L5e, L6e, L7e	Number of doors, and its configuration, dimensions and maximum angle of opening <sup>(5)</sup> :

Item No.	(Sub) categories	Detailed information
6.20.2.2.	L2e, L5e, L6e, L7e	Drawing of latches and hinges and of their position in the doors:
6.20.2.3.	L2e, L5e, L6e, L7e	Technical description of latches and hinges:
6.20.2.4.	L2e, L5e, L6e, L7e	Details, including dimensions, of entrances, steps and necessary handles where applicable:
6.20.3.		Interior protection for occupants
6.20.3.1.	L2e, L5e, L6e, L7e	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, seats and the rear part of seats), roof and opening roof, backrest:
6.20.4.		Head restraints
6.20.4.1.	L2e, L5e, L6e, L7e	Head restraints: integrated/detachable/separate <sup>(4)</sup>
6.20.4.2.	L2e, L5e, L6e, L7e	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:
6.20.4.3.	L2e, L5e, L6e, L7e	In the case of a 'separate' head restraint
6.20.4.3.1.	L2e, L5e, L6e, L7e	Detailed description of the structural zone to which the head restraint is intended to be fixed:
6.20.4.3.2.	L2e, L5e, L6e, L7e	Scale drawings of the significant parts of the structure and the head restraint:
6.21.		Maximum continuous total power and/or maximum vehicle speed limitation by design
6.21.1.		Propulsion and/or drive-train output governors
6.21.1.1.	L1e — L7e	Number (minimum two, exemption L3e-A3 and L4e-A3):
6.21.1.2.	L1e — L7e	How is the redundancy of governors ensured?:
6.21.1.3.	L1e — L7e	Nominal cut-off point no 1:
6.21.1.3.1.	L1e — L7e	Engine/motor/drive-train rotation speed at which cut-off starts under load: min <sup>-1</sup>
6.21.1.3.2.	L1e — L7e	Maximum rotation speed at the minimum engine load: min-1
6.21.1.4.	L1e — L7e	Nominal cut-off point no 2:
6.21.1.4.1	L1e — L7e	Engine/motor/drive-train rotation speed at which cut-off starts under load <sup>(4)</sup> : min <sup>-1</sup>
6.21.1.4.2.	L1e — L7e	Maximum rotation speed at the minimum engine load: min <sup>-1</sup>
6.21.1.5.	L1e — L7e	The stated purpose of governor(s): maximum design vehicle speed limitation/maximum power limitation/engine over-speed protection <sup>(4)</sup> :
7.		INFORMATION ON VEHICLE CONSTRUCTION
7.1.		Coupling devices and attachments
7.1.1.	L1e — L7e	L-category vehicle equipped with coupling device: yes/no/optional <sup>(4)</sup>

Detailed information

(Sub) categories

Item No.

L1e — L7e	Guidelines and information for consumers in all EU languages regarding the impact on the driveability of using a trailer with an L-category vehicle included in the owner's manual: yes/no <sup>(4)</sup>
L1e — L7e	For coupling-device approved as separate technical unit: installation and operating instructions added to documentation: yes/no <sup>(4)</sup>
L1e — L7e	Photographs and/or drawings showing the position and the construction of the coupling-devices:
L1e — L7e	Instructions for attaching the coupling-type to the vehicle and photographs or drawings of the fixing points on 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:
L1e — L7e	Attachment points for a secondary coupling and/or breakaway cable (drawings and pictures may be used as appropriate): yes/no <sup>(4)</sup>
	Devices to prevent unauthorised use
	Protective device
L1e — L7e	Summary description of protective device(s) used:
	Vehicle immobiliser
L1e — L7e	Technical description of the vehicle immobiliser and of the measures taken against inadvertent activation:
	Alarm system
L1e — L7e	Description of the alarm system and of the vehicle parts involved in its installation:
L1e — L7e	List of the main components comprising the alarm system:
	Electromagnetic compatibility (EMC)
L1e — L7e	Requirements under UNECE Regulation No 10 (OJ L 254, 20.9.2012, p. 1) are met with relevant documentation included in the information document: yes/no <sup>(4)</sup>
L1e — L7e	Table or drawing of radio-interference control equipment:
L1e — L7e	Particulars of the nominal value of the direct-current resistance, and, in the case of resistive ignition cables, of their nominal resistance per metre:
	External projections
L1e — L7eve- hicles with bodywork	General arrangement (drawing or photographs accompanied if necessary by dimensional details and/or text) indicating the position of the attached sections and views, of any parts of the exterior surface which can be regarded as critical for external projections, for example, and where relevant: bumpers, floor line, door and window pillars, air-intake grilles, radiator grille, windscreen wipers, rain gutter channels, handles, slide rails, flaps, door hinges and locks, hooks, eyes, winches, decorative trim, badges, emblems and recesses and any other parts of the exterior surface which can be regarded as critical (e.g. lighting equipment):
	L1e — L7e

Item No.	(Sub) categories	Detailed information
7.5.		Fuel storage
7.5.1.		Fuel tank(s)
7.5.1.1.		Main fuel tank(s)
7.5.1.1.1.	L1e — L7e	Maximum capacity:
7.5.1.1.2.	L1e — L7e	Materials used:
7.5.1.1.3.	L1e — L7e	Fuel tank inlet: restricted orifice/label <sup>(4)</sup>
7.5.1.2.		Reserve fuel tank(s)
7.5.1.2.1.	L1e — L7e	Maximum capacity:
7.5.1.2.2.	L1e — L7e	Materials used:
7.5.1.2.3.	L1e — L7e	Fuel tank inlet: restricted orifice/label <sup>(4)</sup>
7.5.1.3.	L1e — L7e	Drawing and technical description of the tank(s) with connections and lines of the breathing and venting system, locks, valves, fastening devices:
7.5.1.4.	L1e — L7e	Drawing clearly showing the position of the tank(s) in the vehicle:
7.5.1.5.	L1e — L7e	Drawing of the heat shield between tank and exhaust device:
7.5.2.		Compressed natural gas (CNG) container(s)
7.5.2.1.	L1e — L7e	Applicable information document set out in UNECE regulation No 110 (¹) as prescribed for vehicle category M1 shall supplement this information document with regards to the CNG tanks installed on the vehicle.
7.5.3.	L1e — L7e	Liquefied petroleum gas (LPG)container(s)
7.5.3.1.	L1e — L7e	Applicable information document set out in UNECE regulation No 67 (2) as prescribed for vehicle category M1 shall supplement this information document with regards to the LPG tanks installed on the vehicle.
7.6.		On-board diagnostics (OBD) functional requirements
7.6.1		On-board diagnostics system
7.6.1.1.	L1e — L7e	Stage I: yes/no <sup>(4)</sup> and/or
7.6.1.2.	L1e — L7e	Stage II: yes/no <sup>(4)</sup>
7.6.2.		OBD system general information
7.6.2.1.	L3e—L7e <sup>(10)</sup>	Written description and/or drawing of the malfunction indicator (MI):
7.6.2.2.	L3e—L7e <sup>(10)</sup>	List and purpose of all components monitored by the OBD system:
7.6.2.3.	L3e— L7e <sup>(10)</sup>	Written description (general working principles) for all OBD stage I circuit (open circuit, shorted low and high, rationality) and electronics (PCU/ECU internal and communication) diagnostics:
7.6.2.4.	L3e—L7e <sup>(10)</sup>	Written description (general working principles) for all OBD stage I diagnostic functionality triggering any operating mode which significantly reduces engine torque in case of fault detection:

<sup>(1)</sup> OJ L 120, 7.5.2011, p. 1. (2) OJ L 72, 14.3.2008, p. 1.

Item No.	(Sub) categories	Detailed information
7.6.2.5.	L3e— L7e <sup>(10)</sup>	Written description of the communication protocol(s) supported:
7.6.2.6.	L3e—L7e <sup>(10)</sup>	Physical location of diagnostic-connector (add drawings and photographs):
7.6.2.7.	L3e— L7e <sup>(10)</sup>	Written description in case of voluntary compliance with OBD stage II (general working principles):
7.6.2.7.1.	L3e — L7e <sup>(10)</sup>	Positive-ignition engines
7.6.2.7.1.1.	L3e — L7e <sup>(10)</sup>	Catalyst monitoring:
7.6.2.7.1.2.	L3e — L7e <sup>(10)</sup>	Misfire detection:
7.6.2.7.1.3.	L3e — L7e <sup>(10)</sup>	Oxygen sensor monitoring:
7.6.2.7.1.4.	L3e — L7e <sup>(10)</sup>	Other components monitored by the OBD system:
7.6.2.7.2.	L3e — L7e <sup>(10)</sup>	Compression-ignition engines
7.6.2.7.2.1.	L3e — L7e <sup>(10)</sup>	Catalyst monitoring:
7.6.2.7.2.2.	L3e — L7e <sup>(10)</sup>	Particulate filter monitoring:
7.6.2.7.2.3.	L3e — L7e <sup>(10)</sup>	Electronic fuelling system monitoring:
7.6.2.7.2.4.	L3e — L7e <sup>(10)</sup>	deNOx system monitoring:
7.6.2.7.2.5.	L3e — L7e <sup>(10)</sup>	Other components monitored by the OBD system:
7.6.2.7.3	L3e — L7e <sup>(10)</sup>	Criteria for MI activation (fixed number of driving cycles or statistical method):
7.6.2.7.4.	L3e — L7e <sup>(10)</sup>	List of all OBD output codes and formats used (with explanation of each):
7.6.3.		OBD compatibility
		The following additional information shall be provided by the vehicle manufacturer to enable the manufacture of OBD-compatible replacement or service parts, diagnostic tools and test equipment:
7.6.3.1.	L3e — L7e <sup>(10)</sup>	A comprehensive document describing all sensed components concerned with the strategy for fault detection and MI activation (fixed number of driving cycles or statistical method). This shall, include a list of relevant secondary sensed parameters for each component monitored by the OBD system. The document shall also list all OBD output codes and formats (with an explanation of each) used in association with individual emission-related powertrain components and individual non-emission-related components, where monitoring the component is used to determine MI activation. This shall contain, in particular, a comprehensive explanation for the data given in service \$05 Test ID \$ 21 to FF and the data given in service \$06:
7.6.3.2.	L3e — L7e <sup>(10)</sup>	For vehicle types using a communication link in accordance with ISO 15765-4 'Road vehicles, diagnostics on controller area network (CAN) — Part 4: requirements for emissions-related systems', the manufacturer shall provide a comprehensive explanation for the data given in service \$06 Test ID \$00 to FF, for each OBD monitor ID supported:

	Item No.	(Sub) categories			Detai	led information	n		
	7.6.3.3.	L3e — L7e <sup>(10)</sup>		nformation bed below.	required abov	ve may be	provided i	n table	form as
				Example C	OBD fault-cod	le overview	list		
		Component I	Fault code	Monitoring strategy	Fault detection criteria	MI activation criteria	Secondary parameters	Precon- ditioning	Demo- nstrati- on test
		Intake air temperature sensor open circuit	P0xxxxzz	Comparison with temperature model after cold start	> 20 degr difference between measured and modelled intake air temperatu- re	3 <sup>rd</sup> cycle	Coolant and intake air temperat- ure sensor signals	Two type I cycles	Type I
	7.6.3.4.	L3e — L7e <sup>(10)</sup>	Descri	iption of ET	C diagnostic 1	fault codes:			
<b>▼</b> <u>M2</u>									
	7.6.3.5.	L3e — L7e <sup>(10)</sup>		iption of the C failure	default modes	which a dr	iver may exp	perience in	n case of
<b>▼</b> <u>B</u>									
_	7.6.4.		The fo	ollowing info and variant	rotocol inform rmation shall , or identified d systems iden	be referenc using other			
	7.6.4.1.	L3e — L7e <sup>(10)</sup>	Any p addition Annex as add	rotocol inforon to the s XXII to Con litional hardy	mation system tandards pres nmission Dele ware or softwa unctions, 'kee	n needed to cribed in p gated Regulare protocol	oint 3.8. of lation (EU) information,	f Append No 44/20 paramete	lix 1 to 14, such er identi-
	7.6.4.2.	L3e — L7e <sup>(10)</sup>	with the	he standards	obtain and in prescribed in elegated Regu	point 3.11.	of Appendi	x 1 to Ar	cordance nnex XII
	7.6.4.3.	L3e — L7e <sup>(10)</sup>	A list inform	of all avail	able live data	parameters	including s	caling an	d access
	7.6.4.4.	L3e — L7e <sup>(10)</sup>	A list and th	of all available means to	ole functional implement the	tests includi em;	ng device ac	tivation o	r control
			-						
	7.6.4.6.	L3e — L7e <sup>(10)</sup> L3e — L7e <sup>(10)</sup>	PCU/F	ECU identifi	cation and var	riant coding	;		

Item No.	(Sub) categories	Detailed information
7.6.4.7.	L3e — L7e <sup>(10)</sup>	Details of how to reset service lights;
7.6.4.8.	L3e — L7e <sup>(10)</sup>	Location of diagnostic connector and connector details;
7.6.4.9.	L3e — L7e <sup>(10)</sup>	Engine code identification.
7.6.5.		Test and diagnosis of OBD monitored components
7.6.5.1.	L3e — L7e <sup>(10)</sup>	A description of tests to confirm its functionality, at the component or in the harness:
7.7.		Passenger handholds and footrests
7.7.1.		Handholds
7.7.1.1.	L1e — L7e	Configuration: strap and/or handle <sup>(4)</sup>
7.7.1.3.	L1e — L7e	Photographs and/or drawings showing the location and the construction:
7.7.2.		Footrests
7.7.2.1.	L1e — L7e	Photographs and/or drawings showing the location and the construction:
7.8.		Registration plate space
7.8.1.	L1e — L7e	Location of rear registration plate (indicate variants where necessary; drawings may be used as appropriate):
7.8.1.1.	L1e — L7e	Height above road surface, upper edge:
7.8.1.2.	L1e — L7e	Height above road surface, lower edge:
7.8.1.3.	L1e — L7e	Distance of the centre line from the longitudinal median plane of the vehicle:
7.8.1.4.	L1e — L7e	Dimensions (length x width): mm x mm
7.8.1.5.	L1e — L7e	Inclination of the plane to the vertical: degr.
7.8.1.6.	L1e — L7e	Angle of visibility in the horizontal plane: degr
7.9.		Stands
7.9.1.	L1e, L3e	Configuration: central and/or side <sup>(4)</sup> :
7.9.2.	L1e, L3e	Construction material used:
7.9.3.	L1e, L3e	Photographs and drawings showing the location of the stand(s) in relation to the structure of the vehicle:
7.9.4.	L1e, L3e	Description of the method to prevent contact of the stand with the ground when the vehicle is being propelled:

Model information document relating to EU type-approval of a type of/ a type of a vehicle with regard to<sup>(4)</sup> a tailpipe pollution-control system

Appendix 1

Item No	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22): km/h and gear in which it is reached:

Item No	(Sub) categories	Detailed information
1.8.3.	L1e — L7e	Maximum net power combustion engine: kW at
1.8.4.	L1e — L7e	Maximum net torque combustion engine:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> mi power <sup>(27)</sup> ):kW at
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s): kW at at A/F ratio:
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s): Nm at at A/F ratio:
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at
4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULS UNIT PERFORMANCE
4.1.		Tailpipe emission-control system
4.1.1.	L1e — L7e	Brief description and schematic drawing of the tailpipe emission-control sy and its control:
4.1.2.		Catalytic converter
4.1.2.1.	L1e — L7e	Configuration, number of catalytic converters and elements (information provided for each separate unit):
4.1.2.2.	L1e — L7e	Drawing with dimensions, shape and volume of the catalytic converter(s):
4.1.2.3.	L1e — L7e	Catalytic reaction:
* 4.1.2.4.	L1e — L7e	Total charge of precious metals:
* 4.1.2.5.	L1e — L7e	Relative concentration:
* 4.1.2.6.	L1e — L7e	Substrate (structure and material):
* 4.1.2.7.	L1e — L7e	Cell density:
* 4.1.2.8.	L1e — L7e	Casing for the catalytic converter(s):
4.1.2.9.	L1e — L7e	Location of the catalytic converter(s) (place and reference distance in the ex-
4.1.2.10.	L1e — L7e	Catalyst heat-shield: yes/no <sup>(4)</sup>
4.1.2.11.	L1e — L7e	Brief description and schematic drawing of the regeneration system/methor exhaust after-treatment systems and its control system:
4.1.2.11.1.	L1e — L7e	Normal operating temperature range:
4.1.2.11.2.	L1e — L7e	Consumable reagents: yes/no <sup>(4)</sup>
4.1.2.11.3.	L1e — L7e	Brief description and schematic drawing of the reagent flow (wet) system a control system:

Item No	(Sub) categories	Detailed information
4.1.2.11.4.	L1e — L7e	Type and concentration of reagent needed for catalytic action:
4.1.2.11.5.	L1e — L7e	Normal operational temperature range of reagent:
4.1.2.12.	L1e — L7e	Identifying part number:
4.1.3.		Oxygen sensor(s)
4.1.3.1.	L1e — L7e	Oxygen sensor component(s) drawing(s):
4.1.3.2.	L1e — L7e	Drawing of exhaust device with oxygen sensor location(s) (dimensions relative exhaust valves):
4.1.3.3.	L1e — L7e	Control range(s):
4.1.3.4.	L1e — L7e	Identifying part number(s):
4.1.3.5.	L1e — L7e	Description of oxygen sensor heating system and heating strategy:
4.1.3.6.	L1e — L7e	Oxygen sensor heat shield(s): yes/no <sup>(4)</sup>
4.1.4.		Secondary air-injection (air-inject in exhaust)
4.1.4.1.	L1e — L7e	Brief description and schematic drawing of the secondary air-injection system its control system:
4.1.4.2.	L1e — L7e	Configuration (mechanical, pulse air, air pump etc.) <sup>(4)</sup> :
4.1.4.3.	L1e — L7e	Working principle:
4.1.5.		External exhaust gas recirculation (EGR)
4.1.5.1.	L1e — L7e	Brief description and schematic drawing of the EGR system (exhaust flow) and control system:
4.1.6.		Particulate filter
4.1.6.1.	L1e — L7e	PT component drawing with dimensions, shape and capacity of the particular filter:
4.1.6.2.	L1e — L7e	Design of the particulate filter:
4.1.6.3.	L1e — L7e	Brief description and schematic drawing of the particulate filter and its cor system:
4.1.6.4.	L1e — L7e	Location (reference distance in the exhaust line):
4.1.6.5.	L1e — L7e	Method or system of regeneration, description and drawing:
4.1.6.6.	L1e — L7e	Identifying part number:
4.1.7.		Lean NOx trap
4.1.7.1.	L1e — L7e	Operation principle of lean NOx trap:
4.1.8.		Additional tailpipe emission-control devices (if any not covered under ano heading)
4.1.8.1.	L1e — L7e	Working principle:

Item No	(Sub) categories	Detailed information
5.		VEHICLE PROPULSION FAMILY
5.1.	L1e — L7e	To define the vehicle propulsion family, the manufacturer shall submit the information required for classification criteria set out in point 3 of Annex XI to Commission Delegated Regulation (EU) No 134/2014, if not already provided in the information document.

Model information document relating to EU type-approval of a type of/a type of a vehicle with regard to (4) a crankcase and evaporative emissions system

Appendix 2

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE
4.2.		Crankcase emission control system
4.2.1.	L1e — L7e	Configuration of crank-case gas recycling system (breather system, positive crank-case ventilation system, other) <sup>(4)</sup> (description and drawings).
4.3.		Evaporative emission control system
4.3.1.	L1e — L7e	Evaporative emissions control system: yes/no <sup>(4)</sup>

Item No.	(Sub) categories	Detailed information
4.3.2.	L1e — L7e	Drawing of the evaporative control system:
4.3.3.	L1e — L7e	Drawing of the canister (including dimensions and indicating vent and purge mechanism):
4.3.4.	L1e — L7e	Working capacity:g
4.3.5.	L1e — L7e	Adsorption material: (e.g. charcoal, carbon, synthetic,)
4.3.6.	L1e — L7e	Housing material: (e.g. plastic, steel,
4.3.7.	L1e — L7e	Schematic drawing of the fuel tank, indicating capacity and material:
4.3.8.	L1e — L7e	Drawing of the heat-shield between tank and exhaust device:
5.		VEHICLE PROPULSION FAMILY
5.1.	L1e — L7e	To define the vehicle propulsion family, the manufacturer shall submit the information required for classification criteria set out in point 3 of Annex XI to Commission Delegated Regulation (EU) No 134/2014, if not already provided in the information document.

Appendix 3  $\label{eq:Appendix 3}$  Model information document relating to EU type-approval of a type of/a type of a vehicle with regard to  $^{(4)}$  an on-board diagnostic (OBD) system

	Item No	(Sub) categories	Detailed information		
	B.		General information concerning systems, components or separate technical units		
	0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):		
	0.8.	L1e — L7e	Type:		
	0.8.1.	L1e — L7e	Commercial name(s) (if available):		
	0.8.2.	L1e — L7e	Type-approval number(s) (if available):		
	0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):		
	0.9.	L1e — L7e	Company name and address of manufacturer:		
	0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:		
	0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:		
	0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):		
	0.10.1.	L1e — L7e	Type <sup>(17)</sup> :		
	0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :		
	0.10.3.	L1e — L7e	Version <sup>(17)</sup> .		
	0.10.4.	L1e — L7e	Commercial name(s) (if available):		
	0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :		
	0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :		
	0.11.1.	L1e — L7e	Method of attachment:		
	0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):		
	C.		General information concerning vehicle, systems, components or separate technical units		
	0.12.		Conformity of production		
	0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.		
	4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE		
	4.0		General information on environmental and propulsion performance		
<u>M2</u>					
	4.0.1.	L1e — L7e	Environmental step: Euro (3/4/5/5+) (4)		
<u>M1</u>					
	4.0.2.	L1e — L7e	Fuel consumption (provide details for each reference fuel tested) $1/kg^{(4)}/100~km$		

## **▼**<u>M1</u>

Item No	(Sub) categories	Detailed information			
4.0.3.	L1e — L7e	CO <sub>2</sub> emissions <sup>(25)</sup> :			
4.0.4.	L1e — L7e	Energy consumption <sup>(25)</sup> :			
4.0.5.	L1e — L7e	Electric range <sup>(25)</sup> :km			
5.		VEHICLE PROPULSION FAMILY			
5.1.	L1e — L7e	To define the vehicle propulsion family, the manufacturer shall submit the information required for classification criteria set out in point 3 of Annex XI to Commission Delegated Regulation (EU) No 134/2014, if not already provided in the information document.			
7.		INFORMATION ON VEHICLE CONSTRUCTION			
7.6.		On-board diagnostics (OBD) functional requirements			
7.6.1		On-board diagnostics system			
7.6.1.1.	L1e — L7e	Stage I: yes/no <sup>(4)</sup> and/or			
7.6.1.2.	L1e — L7e	Stage II: yes/no <sup>(4)</sup>			
7.6.2.		OBD system general information			
7.6.2.1.	L3e — L7e <sup>(10)</sup>	Written description and/or drawing of the malfunction indicator (MI):			
7.6.2.2.	L3e — L7e <sup>(10)</sup>	List and purpose of all components monitored by the OBD system:			
7.6.2.3.	L3e — L7e <sup>(10)</sup>	Written description (general working principles) for all OBD stage I circuit (open circuit, shorted low and high, rationality) and electronics (PCU/ECU internal and communication) diagnostics:			
7.6.2.4.	L3e — L7e <sup>(10)</sup>	Written description (general working principles) for all OBD stage I diagnostic functionality triggering any operating mode which significantly reduces engine torque in case of fault detection:			
7.6.2.5.	L3e — L7e <sup>(10)</sup>	Written description of the communication protocol(s) supported:			
7.6.2.6.	L3e — L7e <sup>(10)</sup>	Physical location of diagnostic-connector (add drawings and photographs):			
7.6.2.7.	L3e — L7e <sup>(10)</sup>	Written description in case of voluntary compliance with OBD stage II (general working principles):			
7.6.2.7.1.	L3e — L7e <sup>(10)</sup>	Positive-ignition engines			
7.6.2.7.1.1.	L3e — L7e <sup>(10)</sup>	Catalyst monitoring:			
7.6.2.7.1.2.	L3e — L7e <sup>(10)</sup>	Misfire detection:			
7.6.2.7.1.3.	L3e — L7e <sup>(10)</sup>	Oxygen sensor monitoring:			
7.6.2.7.1.4.	L3e — L7e <sup>(10)</sup>	Other components monitored by the OBD system:			
7.6.2.7.2.	L3e — L7e <sup>(10)</sup>	Compression-ignition engines			
7.6.2.7.2.1.	L3e — L7e <sup>(10)</sup>	Catalyst monitoring:			
	4.0.3. 4.0.4. 4.0.5. 5. 5. 5.1. 7. 7.6. 7.6.1 7.6.1.2. 7.6.2.1. 7.6.2.2. 7.6.2.3. 7.6.2.4. 7.6.2.5. 7.6.2.7.1. 7.6.2.7.1.1. 7.6.2.7.1.1. 7.6.2.7.1.2. 7.6.2.7.1.4. 7.6.2.7.1.4. 7.6.2.7.2.	4.0.3.L1e — L7e4.0.4.L1e — L7e4.0.5.L1e — L7e5.L1e — L7e7.T.6.7.6.1.L1e — L7e7.6.1.L1e — L7e7.6.2.L1e — L7e7.6.2.L3e — L7e(10)7.6.2.3.L3e — L7e(10)7.6.2.4.L3e — L7e(10)7.6.2.5.L3e — L7e(10)7.6.2.6.L3e — L7e(10)7.6.2.7.L3e — L7e(10)7.6.2.7.1.L3e — L7e(10)7.6.2.7.1.1.L3e — L7e(10)7.6.2.7.1.2.L3e — L7e(10)7.6.2.7.1.3.L3e — L7e(10)7.6.2.7.1.4.L3e — L7e(10)7.6.2.7.2.L3e — L7e(10)7.6.2.7.3.L3e — L7e(10)7.6.2.7.1.4.L3e — L7e(10)7.6.2.7.2.L3e — L7e(10)			

Item No	(Sub) categories	Detailed information
7.6.2.7.2.2.	L3e — L7e <sup>(10)</sup>	Particulate filter monitoring:
7.6.2.7.2.3.	L3e — L7e <sup>(10)</sup>	Electronic fuelling system monitoring:
7.6.2.7.2.4.	L3e — L7e <sup>(10)</sup>	deNOx system monitoring:
7.6.2.7.2.5.	L3e — L7e <sup>(10)</sup>	Other components monitored by the OBD system:
7.6.2.7.3	L3e — L7e <sup>(10)</sup>	Criteria for MI activation (fixed number of driving cycles or statistical method):
7.6.2.7.4.	L3e — L7e <sup>(10)</sup>	List of all OBD output codes and formats used (with explanation of each):
7.6.3.		OBD compatibility  The following additional information shall be provided by the vehicle manufacturer to enable the manufacture of OBD-compatible replacement or service parts, diagnostic tools and test equipment:
7.6.3.1.	L3e — L7e <sup>(10)</sup>	A comprehensive document describing all sensed components concerned with the strategy for fault detection and MI activation (fixed number of driving cycles or statistical method). This shall, include a list of relevant secondary sensed parameters for each component monitored by the OBD system. The document shall also list all OBD output codes and formats (with an explanation of each) used in association with individual emission-related powertrain components and individual non-emission-related components, where monitoring the component is used to determine MI activation. This shall contain, in particular, a comprehensive explanation for the data given in service \$05 Test ID \$ 21 to FF and the data given in service \$06:
7.6.3.2.	L3e — L7e <sup>(10)</sup>	For vehicle types using a communication link in accordance with ISO 15765-4 'Road vehicles, diagnostics on controller area network (CAN) — Part 4: requirements for emissions-related systems', the manufacturer shall provide a comprehensive explanation for the data given in service \$06 Test ID \$00 to FF, for each OBD monitor ID supported:
7.6.3.3.	L3e — L7e <sup>(10)</sup>	The information required above may be provided in table form as described below.

#### Example OBD fault-code overview list

Component	Fault code	Monitoring strategy	Fault detection criteria	MI acti- vation criteria	Secondary parameters	Precondi- tioning	Demon- stration test
Intake air temperatu- re sensor open circuit	P0xxxxzz	Comparison with temperature model after cold start	> 20 degr difference between measured and modelled intake air temperature	3 <sup>rd</sup> cycle	Coolant and intake air temperature sensor signals	Two type I cycles	Type I

7.6.3.4.	L3e — L7e <sup>(10)</sup>	Description of ETC diagnostic fault codes:
7.6.3.5.		Description of the default modes in case of an ETC failure which a driver may experience in case of an ETC failure

Item No	(Sub) categories	Detailed information
7.6.4.		Communication protocol information
		The following information shall be referenced to a specific vehicle make, model and variant, or identified using other workable definitions such as VIN or vehicle and systems identification:
7.6.4.1.	L3e — L7e <sup>(10)</sup>	Any protocol information system needed to enable complete diagnostics in addition to the standards prescribed in point 3.8. of Appendix 1 to Annex XII to Commission Delegated Regulation (EU) No 134/2014, such as additional hardware or software protocol information, parameter identification, transfer functions, 'keep alive' requirements, or error conditions;
7.6.4.2.	L3e — L7e <sup>(10)</sup>	Details of how to obtain and interpret all fault codes not in accordance with the standards prescribed in point 3.1 of Appendix 1 to Annex XII to Commission Delegated Regulation (EU) No 134/2014;
7.6.4.3.	L3e — L7e <sup>(10)</sup>	A list of all available live data parameters including scaling and access information;
7.6.4.4.	L3e — L7e <sup>(10)</sup>	A list of all available functional tests including device activation or control and the means to implement them;
7.6.4.5.	L3e — L7e <sup>(10)</sup>	Details of how to obtain all component and status information, time stamps, pending DTC and freeze frames;
7.6.4.6.	L3e — L7e <sup>(10)</sup>	PCU/ECU identification and variant coding;
7.6.4.7.	L3e — L7e <sup>(10)</sup>	Details of how to reset service lights;
7.6.4.8.	L3e — L7e <sup>(10)</sup>	Location of diagnostic connector and connector details;
7.6.4.9.	L3e — L7e <sup>(10)</sup>	Engine code identification.
7.6.5.		Test and diagnosis of OBD monitored components
7.6.5.1.	L3e — L7e <sup>(10)</sup>	A description of tests to confirm its functionality, at the component or in the harness:

Appendix 4 Model information document relating to EU type-approval of a type of/a type of a vehicle with regard to  $^{(4)}$  a sound level system

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed: km/h
	1	

	Item No.	(Sub) categories	Detailed information
	1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22): km/h and gear in which it is reached:
	1.8.3.	L1e — L7e	Maximum net power combustion engine: kW at min <sup>-1</sup> at A/F ratio:
	1.8.4.	L1e — L7e	Maximum net torque combustion engine: Nm at min <sup>-1</sup> at A/F ratio:
	1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ): kW at min <sup>-1</sup>
	1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at min <sup>-1</sup>
	1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:
	1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s): Nm at
	1.8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:
	4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE
	4.0		General information on environmental and propulsion performance
▼ <u>M1</u>			
	4.0.6.		Sound level
	4.0.6.1.	L3e	Limit value for $L_{urban}^{(16)}$ :
<b>▼</b> <u>B</u>			
	4.4.		Additional information on environmental and propulsion unit performance
	4.4.3.	L1e — L7e	Applicable information document set out in respectively UN Regulation No 9, 41 or 63 shall supplement this information document with regard to the sound level.

Appendix 5 Model information document relating to EU type-approval of a type of/a type of a vehicle with regard to  $^{(4)}$  a propulsion unit performance system

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed: km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22): km/h and gear in which it is reached:

Item No.	(Sub) categories	Detailed information
1.8.3.	L1e — L7e	Maximum net power combustion engine: kW at min-1 at A/F ratio:
1.8.4.	L1e — L7e	Maximum net torque combustion engine: Nm at min-1 at A/F ratio:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ): kW at min <sup>-1</sup>
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at min <sup>-1</sup>
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:
3.		GENERAL POWERTRAIN CHARACTERISTICS
3.3.		Pure electric and hybrid electric propulsion and control
3.3.3.4.	L1e — L7e	15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> :
3.9.		Cycles designed to pedal
3.9.1.	L1e	Ratio manpower/electric power:
3.9.2.	L1e	Maximum assistance factor:
3.9.3.	L1e	Maximum vehicle speed for which the electric motor gives assistance: km/h
3.9.4.	L1e	Switch-off distance: m

Appendix 5a

# Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a maximum torque and a maximum net power of a propulsion unit system

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed <sup>(22)</sup> : km/h and gear in which it is reached:
1.8.3.	L1e — L7e	Maximum net power combustion engine: kW at min <sup>-1</sup> at A/F ratio:
1.8.4.	L1e — L7e	Maximum net torque combustion engine: Nm at min <sup>-1</sup> at A/F ratio:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ): kW at min <sup>-1</sup>
	1	Maximum continuous-rated torque electric motor: Nm at

Item No.	(Sub) categories	Detailed information
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:
3.		GENERAL POWERTRAIN CHARACTERISTICS
3.2.		Combustion engine
3.2.1.		Specific engine information
3.2.1.1.	L1e — L7e	Number of combustion engines:
3.2.1.2.	L1e — L7e	Working principle: internal combustion engine (ICE)/positive ignition/compression ignition/external combustion engine (ECE)/turbine/compressed air <sup>(4)</sup> :
3.2.1.3.	L1e — L7e	Cycle: four-stroke/two-stroke/rotary/other <sup>(4)</sup> :
3.2.1.4.	L1e — L7e	Cylinders
3.2.1.4.1.	L1e — L7e	Number:
3.2.1.4.2.	L1e — L7e	Arrangement <sup>(26)</sup> :
3.2.1.4.3.	L1e — L7e	Bore <sup>(12)</sup> : mm
3.2.1.4.4.	L1e — L7e	Stroke <sup>(12)</sup> :
3.2.1.4.5.	L1e — L7e	Number and configuration of stators in the case of rotary-piston engine:
3.2.1.4.6.	L1e — L7e	Volume of combustion chambers in the case of rotary-piston engine: cm <sup>3</sup>
3.2.1.4.7.	L1e — L7e	Firing order:
3.2.1.5.	L1e — L7e	Engine capacity <sup>(6)</sup> : cm <sup>3</sup>
3.2.1.6.	L1e — L7e	Volumetric compression ratio <sup>(7)</sup> :
3.3.		Pure electric and hybrid electric propulsion and control
3.3.3.4.	L1e — L7e	15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> : kW

 ${\it Appendix} \ 6$  Model information document relating to EU type-approval of a pollution-control device as a STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed: km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22): km/h and gear in which it is reached:
1.8.3.	L1e — L7e	Maximum net power combustion engine:
1.8.4.	L1e — L7e	Maximum net torque combustion engine:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ):

#### **▼**B

<u>▲ R</u>			
	Item No.	(Sub) categories	Detailed information
	1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at
	1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):
	1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):
	1.8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:
	4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE
	4.0		General information on environmental and propulsion performance
▼ <u>M2</u>			
	4.0.1.	L1e — L7e	Environmental step: Euro (3/4/5/5+) (4)
▼ <u>M1</u>			
	4.0.2.	L1e — L7e	Fuel consumption (provide details for each reference fuel tested) l/kg <sup>(4)</sup> /100 km
	4.0.3.	L1e — L7e	CO <sub>2</sub> emissions <sup>(25)</sup> :
	4.0.4.	L1e — L7e	Energy consumption <sup>(25)</sup> :
	4.0.5.	L1e — L7e	Electric range <sup>(25)</sup> : km
<b>▼</b> <u>B</u>			
	4.1.		Tailpipe emission-control system
	4.1.1.	L1e — L7e	Brief description and schematic drawing of the tailpipe emission-control system and its control:
	4.1.2.		Catalytic converter
	4.1.2.1.	L1e — L7e	Configuration, number of catalytic converters and elements (information to be provided for each separate unit):
	4.1.2.2.	L1e — L7e	Drawing with dimensions, shape and volume of the catalytic converter(s):
	4.1.2.3.	L1e — L7e	Catalytic reaction:
	* 4.1.2.4.	L1e — L7e	Total charge of precious metals:
	* 4.1.2.5.	L1e — L7e	Relative concentration:
	* 4.1.2.6.	L1e — L7e	Substrate (structure and material):
	* 4.1.2.7.	L1e — L7e	Cell density:
	* 4.1.2.8.	L1e — L7e	Casing for the catalytic converter(s):
	4.1.2.9.	L1e — L7e	Location of the catalytic converter(s) (place and reference distance in the exhaust line):

## <u>▼B</u>

Item No.	(Sub) categories	Detailed information
4.1.2.10.	L1e — L7e	Catalyst heat-shield: yes/no <sup>(4)</sup>
4.1.2.11.	L1e — L7e	Brief description and schematic drawing of the regeneration system/method of exhaust after-treatment systems and its control system:
4.1.2.11.1.	L1e — L7e	Normal operating temperature range:
4.1.2.11.2.	L1e — L7e	Consumable reagents: yes/no <sup>(4)</sup>
4.1.2.11.3.	L1e — L7e	Brief description and schematic drawing of the reagent flow (wet) system and its control system:
4.1.2.11.4.	L1e — L7e	Type and concentration of reagent needed for catalytic action:
4.1.2.11.5.	L1e — L7e	Normal operational temperature range of reagent: K
4.1.2.11.6.	L1e — L7e	Frequency of reagent refill: continuous/maintenance <sup>(4)</sup>
4.1.2.12.	L1e — L7e	Identifying part number:
4.1.3.		Oxygen sensor(s)
4.1.3.1.	L1e — L7e	Oxygen sensor component(s) drawing(s):
4.1.3.2.	L1e — L7e	Drawing of exhaust device with oxygen sensor location(s) (dimensions relative to exhaust valves):
4.1.3.3.	L1e — L7e	Control range(s):
4.1.3.4.	L1e — L7e	Identifying part number(s):
4.1.3.5.	L1e — L7e	Description of oxygen sensor heating system and heating strategy:
4.1.3.6.	L1e — L7e	Oxygen sensor heat shield(s): yes/no <sup>(4)</sup>
4.1.4.		Secondary air-injection (air-inject in exhaust)
4.1.4.1.	L1e — L7e	Brief description and schematic drawing of the secondary air-injection system and its control system:
4.1.4.2.	L1e — L7e	Configuration (mechanical, pulse air, air pump etc.) <sup>(4)</sup> :
4.1.4.3.	L1e — L7e	Working principle:
4.1.5.		External exhaust gas recirculation (EGR)
4.1.5.1.	L1e — L7e	Brief description and schematic drawing of the EGR system (exhaust flow) and its control system:
4.1.5.2.	L1e — L7e	Characteristics:
4.1.6.		Particulate filter
4.1.6.1.	L1e — L7e	PT component drawing with dimensions, shape and capacity of the particulate filter:
4.1.6.2.	L1e — L7e	Design of the particulate filter:
4.1.6.3.	L1e — L7e	Brief description and schematic drawing of the particulate filter and its control system:

Item No.	(Sub) categories	Detailed information
4.1.6.4.	L1e — L7e	Location (reference distance in the exhaust line):
4.1.6.5.	L1e — L7e	Method or system of regeneration, description and drawing:
4.1.7.		Lean NOx trap
4.1.7.1.	L1e — L7e	Operation principle of lean NOx trap:
4.1.8.		Additional tailpipe emission-control devices (if any not covered under another heading)
4.1.8.1.	L1e — L7e	Working principle:

 ${\it Appendix} \ 7$  Model information document relating to EU type-approval of a noise-abatement device as a STU

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22): km/h and gear in which it is reached:
1.8.3.	L1e — L7e	Maximum net power combustion engine:
1.8.4.	L1e — L7e	Maximum net torque combustion engine:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ):

	Item No.	(Sub) categories	Detailed information
	1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor:
	1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):
	1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):
	1.8.9.	L1e — L7e	Maximum peak power for propulsion(s):
	4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE
	4.0		General information on environmental and propulsion performance
<b>▼</b> <u>M2</u>			
	4.0.1.	L1e — L7e	Environmental step: Euro (3/4/5/5+) (4)
<b>▼</b> <u>M1</u>			
	4.0.2.	L1e — L7e	Fuel consumption (provide details for each reference fuel tested)
	4.0.3.	L1e — L7e	CO <sub>2</sub> emissions <sup>(25)</sup> : g/km
	4.0.4.	L1e — L7e	Energy consumption <sup>(25)</sup> :
	4.0.5.	L1e — L7e	Electric range <sup>(25)</sup> :
	4.0.6.		Sound level
	4.0.6.1.	L3e	Limit value for L <sub>urban</sub> <sup>(16)</sup>
<b>▼</b> B			
_	4.4.		Additional information on environmental and propulsion unit performance
	4.4.4.	L1e — L7e	Applicable information document set out in respectively UN Regulation No 92 shall
		DIO DIO	supplement this information document with regards to the noise-abatement devices installed on the vehicle.

Model information document relating to EU type-approval of an exhaust (pollution-control device and noise-abatement device) as a STU

Appendix 8

	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22):
1.8.3.	L1e — L7e	Maximum net power combustion engine:
1.8.4.	L1e — L7e	Maximum net torque combustion engine:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ):kW atmin <sup>-1</sup>

▼ <u>D</u>			
		(Sub) categories	Detailed information
	1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor:
	1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):
	1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):
	1.8.9.	L1e — L7e	Maximum peak power for propulsion(s):
	4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE
	4.0		General information on environmental and propulsion performance
▼ <u>M2</u>			
	4.0.1.	L1e — L7e	Environmental step: Euro (3/4/5/5+) (4)
▼ <u>M1</u>			
	4.0.2.	L1e — L7e	Fuel consumption (provide details for each reference fuel tested) l/kg <sup>(4)</sup> /100 km
	4.0.2		CO <sub>2</sub> emissions <sup>(25)</sup>
	4.0.3.	L1e — L7e	
	4.0.4.	L1e — L7e	Energy consumption <sup>(25)</sup> :
	4.0.5.	L1e — L7e	Electric range <sup>(25)</sup> :
	4.0.6.		Sound level
	4.0.6.1.	L3e	Limit value for L <sub>urban</sub> <sup>(16)</sup> :
<b>▼</b> <u>B</u>			
	4.1.		Tailpipe emission-control system
	4.1.1.	L1e — L7e	Brief description and schematic drawing of the tailpipe emission-control system and its control:
	4.1.2.		Catalytic converter
	4.1.2.1.	L1e — L7e	Configuration, number of catalytic converters and elements (information to be provided for each separate unit):
	4.1.2.2.	L1e — L7e	Drawing with dimensions, shape and volume of the catalytic converter(s):
	4.1.2.3.	L1e — L7e	Catalytic reaction:
	* 4.1.2.4.	L1e — L7e	Total charge of precious metals:
	* 4.1.2.5.	L1e — L7e	Relative concentration:
	* 4.1.2.6.	L1e — L7e	Substrate (structure and material):
	* 4.1.2.7.	L1e — L7e	Cell density:
	* 4.1.2.8.	L1e — L7e	Casing for the catalytic converter(s):

	(Sub) categories	Detailed information
4.1.2.9.	L1e — L7e	Location of the catalytic converter(s) (place and reference distance in the exhaust line):
4.1.2.10.	L1e — L7e	Catalyst heat-shield: yes/no <sup>(4)</sup>
4.1.2.11.	L1e — L7e	Brief description and schematic drawing of the regeneration system/method of exhaust after-treatment systems and its control system:
4.1.2.11.1.	L1e — L7e	Normal operating temperature range: K
4.1.2.11.2.	L1e — L7e	Consumable reagents: yes/no <sup>(4)</sup>
4.1.2.11.3.	L1e — L7e	Brief description and schematic drawing of the reagent flow (wet) system and its control system:
4.1.2.11.4.	L1e — L7e	Type and concentration of reagent needed for catalytic action:
4.1.2.11.5.	L1e — L7e	Normal operational temperature range of reagent: K
4.1.2.11.6.	L1e — L7e	Frequency of reagent refill: continuous/maintenance <sup>(4)</sup>
4.1.2.12.	L1e — L7e	Identifying part number:
4.1.3.		Oxygen sensor(s)
4.1.3.1.	L1e — L7e	Oxygen sensor component(s) drawing(s):
4.1.3.2.	L1e — L7e	Drawing of exhaust device with oxygen sensor location(s) (dimensions relative to exhaust valves):
4.1.3.3.	L1e — L7e	Control range(s):
4.1.3.4.	L1e — L7e	Identifying part number(s):
4.1.3.5.	L1e — L7e	Description of oxygen sensor heating system and heating strategy:
4.1.3.6.	L1e — L7e	Oxygen sensor heat shield(s): yes/no <sup>(4)</sup>
4.1.4.		Secondary air-injection (air-inject in exhaust)
4.1.4.1.	L1e — L7e	Brief description and schematic drawing of the secondary air-injection system and its control system:
4.1.4.2.	L1e — L7e	Configuration (mechanical, pulse air, air pump etc.) <sup>(4)</sup> :
4.1.4.3.	L1e — L7e	Working principle:
4.1.5.		External exhaust gas recirculation (EGR)
4.1.5.1.	L1e — L7e	Brief description and schematic drawing of the EGR system (exhaust flow) and its control system:
4.1.5.2.	L1e — L7e	Characteristics:
4.1.5.3.	L1e — L7e	Water-cooled EGR system: yes/no (4)
4.1.5.4.	L1e — L7e	Air-cooled EGR system: yes/no (4)

	(Sub) categories	Detailed information
4.1.6.		Particulate filter
4.1.6.1.	L1e — L7e	PT component drawing with dimensions, shape and capacity of the particulate filter:
4.1.6.2.	L1e — L7e	Design of the particulate filter:
4.1.6.3.	L1e — L7e	Brief description and schematic drawing of the particulate filter and its control system:
4.1.6.4.	L1e — L7e	Location (reference distance in the exhaust line):
4.1.6.5.	L1e — L7e	Method or system of regeneration, description and drawing:
4.1.7.		Lean NOx trap
4.1.7.1.	L1e — L7e	Operation principle of lean NOx trap:
4.1.8.		Additional tailpipe emission-control devices (if any not covered under another heading)
4.1.8.1.	L1e — L7e	Working principle:
4.4.		Additional information on environmental and propulsion unit performance
4.4.4.	L1e — L7e	Applicable information document set out in respectively UN Regulation No 92 shall supplement this information document with regards to the noise-abatement devices installed on the vehicle.

Appendix 8a

# Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an installation of audible warning devices system

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems
6.		INFORMATION ON FUNCTIONAL SAFETY
6.1.		Audible warning devices
6.1.1.	L1e — L7e	Summary description of device(s) used and their purpose:
6.1.2.	L1e — L7e	Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle:
6.1.3.	L1e — L7e	Details of the method of attachment, including the part of the vehicle structure to which the audible warning device(s) is (are) attached:
6.1.4.	L1e — L7e	Electrical/pneumatic circuit diagram:
6.1.4.1.	L1e — L7e	Voltage: AC/DC <sup>(4)</sup>
6.1.4.2.	L1e — L7e	Rated voltage or pressure:
6.1.5.	L1e — L7e	Drawing of the mounting device:

Appendix 9  $\begin{tabular}{ll} Model information document relating to EU type-approval of a type of a vehicle with regard to $^{(4)}$ a braking system $^{(4)}$ and $^{(4)}$ are the properties of the pr$ 

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21).
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22):

Item No.	(Sub) categories	Detailed information						
1.8.3.	L1e — L7e	Maximum net power combustion engine:						
1.8.4.	L1e — L7e	Maximum net torque combustion engine:						
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ): kW at min <sup>-1</sup>						
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at min-1						
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):						
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):						
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s):						
2.		MASSES AND DIMENSIONS						
		(in kg and mm.) Refer to drawings where applicable						
2.1		Range of vehicle mass (overall)						
2.1.1.	L1e — L7e	Mass in running order:kg						
2.1.1.1.	L1e — L7e	Distribution of mass in running order between the axles:kg						
2.1.3.	L1e — L7e	Technically permissible maximum laden mass:kg						
2.1.3.1.	L1e — L7e	Technically permissible maximum mass on front axle:kg						
2.1.3.2.	L1e — L7e	Technically permissible maximum mass on rear axle:kg						
2.1.3.3.	L4e	Technically permissible maximum mass on sidecar axle:kg						
6.		INFORMATION ON FUNCTIONAL SAFETY						
6.2.		Braking, including anti-lock and combined braking systems						
6.2.1.	L1e — L7e	Characteristics of the brakes, 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, levers, pedals (4):						
6.2.2.	L1e — L7e	Operating diagram, description and/or drawing of the braking system, including details and drawings of the transmission and controls as well as a brief description of the electrical and/or electronic components used in the braking system <sup>(4)</sup> :						
6.2.2.1.	L1e — L7e	Front, rear and sidecar brakes, disc and/or drum <sup>(4)</sup> :						
6.2.2.2.	L1e — L7e	Parking braking system:						
6.2.2.3.	L1e — L7e	Any additional braking system:						
6.2.3.	L1e — L7e	Vehicle is equipped to tow a trailer with no brake/overrun brake/electric/pneumatic/hydraulic service brakes: yes/no <sup>(4)</sup> :						
6.2.4.	L1e — L7e	Anti-lock/Combined braking system						

Item No.	(Sub) categories	Detailed information
6.2.4.1.	L1e — L7e	Anti-lock braking system: yes/no/optional <sup>(4)</sup>
6.2.4.2.	L1e — L7e	Combined braking system: yes/no/optional <sup>(4)</sup>
6.2.4.3.	L1e — L7e	Anti-lock and combined braking system: yes/no/optional <sup>(4)</sup>
6.2.4.4.	L1e — L7e	Schematic drawing(s):
6.2.5.	L1e — L7e	Hydraulic reservoir(s):
6.2.6.	L1e — L7e	Particular characteristics of the braking system(s):
6.2.6.1.	L1e — L7e	Brake shoes and/or pads <sup>(4)</sup> :
6.2.6.2.	L1e — L7e	Linings and/or pads (indicate make, type, grade of material or identification mark):
6.2.6.3.	L1e — L7e	Brake levers and/or pedals <sup>(4)</sup> :
6.2.6.4.	L1e — L7e	Other devices (where applicable): drawing and description:

#### Appendix 9a

# Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an installation of glazing, windscreen wipers and defrosting and demisting devices system

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.7.	L4e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Hand of drive: left/right/centre <sup>(4)</sup> :
1.7.1.	L1e — L7e	Vehicle is equipped to be driven in right/left-hand traffic and in countries that use metric/metric and imperial units <sup>(4)</sup> :
3.		GENERAL POWERTRAIN CHARACTERISTICS
3.1		Manufacturer of the propulsion unit
3.1.1.		Combustion engine
3.1.1.1.	L1e — L7e	Manufacturer:

Item No.	(Sub) categories	Detailed information				
3.1.1.2.	L1e — L7e	Engine code (as marked on the engine or other means of identification):				
3.1.2.		Electric motor				
3.1.2.1.	L1e — L7e	Manufacturer:				
3.1.2.2.	L1e — L7e	Electric motor code (as marked on the engine or other means of identification): .				
3.1.3.		Hybrid application				
3.1.3.1.	L1e — L7e	Manufacturer:				
3.1.3.2.	L1e — L7e	Application code (as marked on the engine or other means of identification):				
3.2.		Combustion engine				
3.2.1.		Specific engine information				
3.2.1.2.	L1e — L7e	Working principle: internal combustion engine (ICE)/positive ignition/compression ignition/external combustion engine (ECE)/turbine/compressed air <sup>(4)</sup> :				
3.2.1.3.	L1e — L7e	Cycle: four-stroke/two-stroke/rotary/other <sup>(4)</sup> :				
3.2.1.4.	L1e — L7e	Cylinders				
3.2.1.4.1.	L1e — L7e	Number:				
3.2.1.4.2.	L1e — L7e	Arrangement <sup>(26)</sup> :				
3.2.1.5.	L1e — L7e	Engine capacity <sup>(6)</sup> : cm <sup>3</sup>				
3.2.1.9.	L1e — L7e	Normal warm engine idling speed: min <sup>-1</sup>				
3.2.3.		Fuel				
3.2.3.1.	L1e — L7e	Fuel type: (9)				
3.2.3.2.	L1e — L7e	Vehicle fuel configuration: mono-fuel/bi- fuel/flex fuel <sup>(4)</sup>				
3.2.10.		Powertrain cooling system and control				
3.2.10.2.	L1e — L7e	Cooling system: liquid: yes/no <sup>(4)</sup>				
3.2.10.2.2.	L1e — L7e	Nominal setting of the engine temperature control mechanism:				
3.2.10.2.3.	L1e — L7e	Nature of liquid:				
3.2.10.2.4.	L1e — L7e	Circulating pump(s): yes/no <sup>(4)</sup>				
3.2.10.2.4.1.	L1e — L7e	Characteristics:				
3.2.10.2.5.	L1e — L7e	Drive ratio(s):				
3.2.10.2.6.	L1e — L7e	Description of the fan and its drive mechanism:				
3.2.10.3.	L1e — L7e	Air cooling: yes/no <sup>(4)</sup>				
3.2.10.3.3.	L1e — L7e)	Fan: yes/no <sup>(4)</sup>				

Item No.	(Sub) categories	Detailed information
3.2.10.3.3.1.	L1e — L7e	Characteristics:
3.2.13.		Other electrical systems and control than those intended for the electrical propulsion
3.2.13.1.	L1e — L7e	Rated voltage:
3.2.13.2.	L1e — L7e	Generator: yes/no <sup>(4)</sup> :
3.2.13.2.1.	L1e — L7e	Nominal output:
3.3.		Pure electric and hybrid electric propulsion and control
3.3.3.		Electric propulsion motor
3.3.3.2.	L1e — L7e	Type (winding, excitation):
3.3.3.3.	L1e — L7e	Operating voltage:
3.3.4.		Propulsion batteries
3.3.4.1.	L1e — L7e	Primary propulsion battery
3.3.4.1.1.	L1e — L7e	Number of cells:
3.3.4.1.2.	L1e — L7e	Mass:kg
3.3.4.1.3.	L1e — L7e	Capacity: Ah (Amp-hours) / V
3.3.4.1.5.	L1e — L7e	Position in the vehicle:
3.3.4.2.	L1e — L7e	Secondary propulsion battery
3.3.4.2.1.	L1e — L7e	Number of cells:
3.3.4.2.2.	L1e — L7e	Mass:kg
3.3.4.2.3.	L1e — L7e	Capacity: Ah (Amp-hours) / V
3.3.4.2.5.	L1e — L7e	Position in the vehicle:
3.3.5.		Hybrid electric vehicle
3.3.5.1.	L1e — L7e	Engine or motor combination (number of electric motor(s) and/or combustion engine(s)/other) <sup>(4)</sup> :
3.3.5.2.	L1e — L7e	Category of hybrid electric vehicle: off-vehicle charging/not off-vehicle charging:
3.3.5.3.	L1e — L7e	Operating mode switch: with/without <sup>(4)</sup>
3.3.5.4.	L1e — L7e	Selectable modes: yes/no <sup>(4)</sup>
3.3.5.5.	L1e — L7e	Pure fuel consuming: yes/no <sup>(4)</sup>
3.3.5.6.	L1e — L7e	Vehicle propelled with fuel cell: yes/no <sup>(4)</sup>
3.3.5.7.	L1e — L7e	Hybrid operation modes: yes/no <sup>(4)</sup> (if yes, short description):

Item No.	(Sub) categories	Detailed information
3.3.6.		Energy storage device
3.3.6.1.	L1e — L7e	Description: (battery, capacitor, flywheel/generator) <sup>(4)</sup>
3.3.6.2.	L1e — L7e	Identification number:
* 3.3.6.3.	L1e — L7e	Kind of electrochemical couple:
3.3.6.4.	L1e — L7e	Energy (for battery: voltage and capacity Ah in 2h, for capacitor: J,, for flywheel/generator: J,,):
3.3.6.5.	L1e — L7e	Charger: on-board/external/without <sup>(4)</sup>
3.4.		Other engines, electric motors or combinations (specific information concerning the parts of these motors)
3.4.1.		Cooling system (temperatures permitted by the manufacturer)
3.4.1.1.	L1e — L7e	Liquid cooling:
3.4.1.1.1.	L1e — L7e	Maximum temperature at outlet:
3.4.1.2.	L1e — L7e	Air cooling:
3.4.1.2.1.	L1e — L7e	Reference point:
3.4.1.2.2.	L1e — L7e	Maximum temperature at reference point:
6.		INFORMATION ON FUNCTIONAL SAFETY
6.5.		Glazing, windscreen wipers and washers, and defrosting and demisting systems
6.5.1.		Windscreen
6.5.1.1.	L2e, L5e, L6e, L7e	Materials used:
6.5.1.2.	L2e, L5e, L6e, L7e	Method of mounting:
6.5.1.3.	L2e, L5e, L6e, L7e	Angle of inclination:
6.5.1.4.	L2e, L5e, L6e, L7e	Windscreen accessories and the position in which they are fitted, together with a brief description of any electrical/electronic components:
6.5.1.5.	L2e, L5e, L6e, L7e	Drawing of the windscreen with dimensions:
6.5.2.		Other windows
6.5.2.1.	L2e, L5e, L6e, L7e	Materials used:
6.5.2.2	L2e, L5e, L6e, L7e	A brief description of the electrical/electronic components (if any) of the window lifting mechanism:
6.5.3.		Opening roof glazing
6.5.3.1.	L2e, L5e, L6e, L7e	Materials used:

Item No.	(Sub) categories	Detailed information
6.5.4.		Other glass panes
6.5.4.1.	L2e, L5e, L6e, L7e	Materials used:
6.6.		Windscreen wiper(s)
6.6.1.	L2e, L5e, L6e, L7e	Detailed technical description (including photographs or drawings):
6.7.		Windscreen washer
6.7.1.	L2e, L5e, L6e, L7e	Detailed technical description (including photographs or drawings):
6.7.2.	L2e, L5e, L6e, L7e	Capacity of the reservoir:
6.8.		Defrosting and demisting
6.8.1.	L2e, L5e, L6e, L7e	Detailed technical description (including photographs or drawings):
6.16.		Seating positions (saddles and seats)
6.16.1.	L1e — L7e	Number of seating positions:
6.16.1.1.	L2e, L5e, L6e, L7e	Location and arrangement <sup>(8)</sup> :
6.16.4.	L2e, L4e, L5e- B, L6e-B, L7e	Coordinates or drawing of the R-point(s) of all seating positions:
6.16.4.1.	L2e, L4e, L5e- B, L6e-B, L7e	Driver's seat:
6.16.5.	L1e — L7e	Design torso angle:
6.16.5.1.	L1e — L7e	Driver's seat:
6.20.		Vehicle occupant protection, including interior fittings and vehicle doors
6.20.1.		Bodywork
6.20.1.1.	L2e, L5e-B, L6e-B, L7e	Materials used and methods of construction:
6.20.2.		Occupant doors, latches and hinges
6.20.2.1.	L2e, L5e, L6e, L7e	Number of doors, and its configuration, dimensions and maximum angle of opening <sup>(5)</sup> .
6.20.3.		Interior protection for occupants)
6.20.3.1.	L2e, L5e, L6e, L7e	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, seats and the rear part of seats), roof and opening roof, backrest:

Appendix 9b

# Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) an identification of controls, te ll-tales and indicators system

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.7.	L4e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Hand of drive: left/right/centre <sup>(4)</sup> :
6.9.		Driver-operated controls including identification of controls, tell-tales and indicators
6.9.1.	L1e — L7e	Arrangement and identification of controls, tell-tales and indicators:
6.9.2.	L1e — L7e	Photographs and/or drawings of the arrangement of symbols and controls, tell-tales and indicators:
6.9.3.	L1e — L7e	Controls, tell-tales and indicators for which, when fitted, identification is mandatory, including the identification symbols to be used for that purpose:

Item No.	(Sub) categorie	s	Detailed information							
6.9.4.	L1e — L7e	Summar	Summary table: the vehicle is equipped with the following driver-operated controls including indicators and tell-tales <sup>(4)</sup>							
			trols, tell-tales an mandatory,	d indicat	ors for v	which, wh	en fitted,	identific		
		Symbol No	Device	Control / indicator available (+)	Identified by symbol	Where (++)	Tell-tale avail- able (+)	Identified by symbol (+)	Where (**	
		1	Master light							
		2	Dipped-beam head lamps							
		3	Main-beam head lamps							
		4	Position (side) lamps							
		5	Front fog lamps							
		6	Rear fog lamp							
		7	Headlamp levelling device							
		8	Parking lamps							
		9	Direction indi- cators							
		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							

Item No.	(Sub) categories	Detailed information								
		Symbo No	l Device	Control / indicator avail- able (+)	Identified by symbol (†)	Where (++)	Tell-tale avail- able (+)	Identified by symbol	Where (++)	
		19	Choke							
		20	Brake failure							
		21	Fuel level							
		22	Battery charging condition							
		23	Engine coolant temperature							
		24	Malfunction indicator light (MI)							
		(†) x = yes - = no or not separately available o = optional. (††) d = directly on control, indicator or tell-tale c = in close vicinity.								
6.9.5.	L1e — L7e	Controls, tell-tales and indicators for which, when fitted, identification is optional, and symbols which shall be used if they are to be identified								
		Sym- bol No	Device	Control / indicator avail- able (+)	Identified by symbol (†)	Where (++)	Tell-tale avail- able (+)	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)							

Item No.	(Sub) categories	Detailed information								
		Sym- bol No	Device	Control / indicator available (+)	Identified by symbol	Where (++)	Tell-tale avail- able (+)	Identified by symbol	Where	
		10	Engine oil pressure							
		11	Unleaded petrol							
		12								
		13								
		(†) x = yes - = no or not separately available o = optional. (††) d = directly on control, indicator or tell-tale c = in close vicinity.								

Model information document relating to EU type-approval of a type of/a type of a vehicle with regard to<sup>(4)</sup> an installation of lighting and light-signalling devices system

Appendix 10

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.11.		Installation of lighting, light-signalling devices, including automatic switching of lighting
6.11.1.	L1e — L7e	List of all devices (mentioning the number, make(s),type, component type-approval mark(s), the maximum intensity of the main-beam headlamps, colour, the corresponding tell-tale):
6.11.2.	L1e — L7e	Diagram showing the location of the lighting and light-signalling devices:

Item No.	(Sub) categories	Detailed information
6.11.3.	L1e — L7e	Hazard warning lamps:
6.11.4.	L1e — L7e	Brief description of the electrical and/or electronic components used in the lighting system and in the light-signalling system:
6.11.5.	L1e — L7e	For every lamp and reflector, supply the following information (in writing and/or by diagram):
6.11.5.1.	L1e — L7e	Drawing showing the extent of the illuminating surface:
6.11.5.2.	L1e — L7e	Method used to define the apparent surface in accordance with point 2.10 of UNECE Regulation No 48 (OJ L 323, 6.12.2011, p. 46):
6.11.5.3.	L1e — L7e	Axis of reference and centre of reference:
6.11.5.4.	L1e — L7e	Method of operation of concealable lamps:
6.11.6.	L1e — L7e	Description/drawing and type of headlamp levelling device (e.g. automatic, stepwise manually adjustable, continuously manually adjustable) <sup>(4)</sup> :
6.11.6.1.	L1e — L7e	Control device:
6.11.6.2.	L1e — L7e	Reference marks:
6.11.6.3.	L1e — L7e	Marks assigned for loading conditions:

Appendix 11 Model information document relating to EU type-approval of a type of/a type of a vehicle with regard to  $^{(4)}$  a roll-over protective structure (ROPS) system

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle(2):
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.13.		Rollover protective structure (ROPS)
6.13.1.	L7e-B2	Detailed technical description, position, fixing, etc. (including photographs or drawings):

Item No.	(Sub) categories	Detailed information
6.13.2.		ROPS by Frame <sup>(4)</sup>
6.13.2.1.	L7e-B2	Internal and external dimensions:
6.13.2.2.	L7e-B2	Material(s) and method of construction:
6.13.3.		ROPS by Cab (4)
6.13.3.1.	L7e-B2	Other weather protection arrangements (description):
6.13.3.2.	L7e-B2	Internal and external dimensions:
6.13.4.		ROPS by Roll bar(s) mounted at front/rear <sup>(4)</sup> , fold-down/not fold down <sup>(4)</sup>
6.13.4.1.	L7e-B2	Dimensions:
6.13.4.2.	L7e-B2	Material(s) and method of construction:

#### Appendix 11a

# $\begin{array}{c} \textbf{Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a \\ \textbf{safety belt anchorages system} \end{array}$

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.4.	L1e — L7e	Chassis (if any) (overall drawing):
1.5.	L2e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Material used for the bodywork:

Item No.	(Sub) categories				Detailed informa	ition	
1.7.	L4e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Hand of drive: left/right/centre <sup>(4)</sup> :					
6.		INFORMATIO	N ON	FUNCT	TIONAL SAFE	TY	
6.14.		Safety belts and	l/or oth	ner rest	raints		
6.14.1.	L2e, L4e, L5e-B, L6e-B, L7e						and seats on which the
		Safety belt conf	igurati	on and	associated info	ormation	
					Complete EU type-approval mark	Variant, if applicable	Belt adjustment device for height (indicate yes/no/ optional)
		First row of seats	1	L			
				С			
		Second row of	(	R L			
		seats		C			
				R			
		L = left, C = central L	re, R = 1	right			
6.14.2.	L2e, L4e, L5e-B, L6e-B, L7e	Description of a back-rest or inco	speciforporation	fic type	of belt, with nergy-dissipation	one anchora n device:	age attached to the sea
6.14.3.	L2e, L4e, L5e-B, L6e-B, L7e	Number and loca	ation of	f the an	chorages:		
6.14.4.	L2e, L4e, L5e-B, L6e-B, L7e	Brief description	of elec	ctrical/e	lectronic compo	nents:	
6.15.		Safety belt anch	orages	1			
6.15.1.	L2e, L4e, L5e-B, L6e-B, L7e						ne true, effective location tion of the R-point:
6.15.2.	L2e, L4e, L5e- B, L6e-B, L7e						ructure to which they ar aterials used):

Item No.	(Sub) categories	Detailed information							
6.15.3.	L2e, L4e, L5e-B, L6e-B, L7e			pes of belts(14) a					
		Safety-belt anchorage configuration and associated information							
							Anchorage	e location	
							Vehicle structure	Seat structure	
		First row of sea	ats						
		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							
		Right-hand seat	$\left\{ \right.$	Lower anchorages Upper anchorages	{	outboard inboard			
		Centre seat	{	Lower anchorages Upper anchorages	{	right left			
		Left-hand seat	{	Lower anchorages Upper anchorages	{	outboard inboard			
				1	ı	I	ı	1	
6.15.4.	L2e, L4e, L5e-B, L6e-B, L7e	Type-approval	mark f	for each position	:				
6.15.5.	L2e, L4e, L5e- B, L6e-B, L7e	Special devices	s (exan	nple: seat-height	adjustr	nent, preloadin	g device, etc.	):	
6.15.6.	L2e, L4e, L5e-B, L6e-B, L7e			rawings of the be					
6.15.7.	L2e, L4e, L5e-B, L6e-B, L7e	Observation:							

Appendix 11b

# Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a steer-ability, cornering properties and turn ability system

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.1.	L1e — L7e	Photographs and/or drawings of a representative vehicle:
1.3.	L1e — L7e	Number of axles and wheels:
1.3.1.	L1e — L7e	Axles with twinned wheels <sup>(23)</sup> :
1.3.2.	L1e — L7e	Powered axles <sup>(23)</sup> :
1.7.	L4e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Hand of drive: left/right/centre <sup>(4)</sup> :

Item No.	(Sub) categories	Detailed information
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed <sup>(22)</sup> :
2.		MASSES AND DIMENSIONS (in kg and mm.) refer to drawings where applicable
2.1		Range of vehicle mass (overall)
2.1.3.	L1e — L7e	Technically permissible maximum laden mass:kg
2.1.3.1.	L1e — L7e	Technically permissible maximum mass on front axle:kg
2.1.3.2.	L1e — L7e	Technically permissible maximum mass on rear axle:kg
2.1.3.3.	L4e	Technically permissible maximum mass on sidecar axle:kg
2.2.		Range of vehicle dimensions (overall)
2.2.1.	L1e — L7e	Length: mm
2.2.2.	L1e — L7e	Width: mm
2.2.3.	L1e — L7e	Height: mm
2.2.4.	L1e — L7e	Wheelbase:
2.2.4.1.	L4e	Wheelbase sidecar <sup>(28)</sup> :
2.2.5.		Track width
2.2.5.1.	L1e — L7e if equipped with twinned wheels L2e, L4e, L5e, L6e, L7e	Track width front: mm
2.2.5.2.	L1e — L7e if equipped with twinned wheels	Track width rear: mm
2.2.5.3.	L2e, L4e, L5e, L6e, L7e	Track width sidecar: mm
2.2.6.	L7e-B	Front overhang: mm
2.2.7.	L7e-B	Rear overhang: mm
3.		GENERAL POWERTRAIN CHARACTERISTICS
3.5.		Drive-train and control <sup>(13)</sup>
3.5.1.	L1e — L7e	Brief description and schematic drawing of the vehicle drive-train and its control system (gear shift control, clutch control or any other element of drive-train):

Item No.	(Sub) categories	Detailed information
3.6.		Safe-cornering device
3.6.1.	L1e — L7e equipped with twinned wheels, L2e, L5e, L6e, L7e	Safe-cornering device (Annex VIII to Regulation (EU) No 168/2013: yes/no <sup>(4)</sup> ; differential/other <sup>(4)</sup>
3.6.2.	L1e — L7e equipped with twinned wheels, L2e, L5e, L6e, L7e	Differential lock: yes/no/optional <sup>(4)</sup>
3.6.3.	L1e — L7e	Brief description and schematic drawing of the safe-cornering device, the differential lock and their control systems:
3.7.		Suspension and control
3.7.1.	L1e — L7e	Brief description and schematic drawing of suspension and its control system:
6.		INFORMATION ON FUNCTIONAL SAFETY
6.17.		Steer-ability, cornering properties and turn-ability
6.17.1.	L1e — L7e	Schematic diagram of steered axle(s) showing steering geometry:
6.17.2.		Transmission and control of steering
6.17.2.1.	L1e — L7e	Configuration of steering transmission (specify for front and rear):
6.17.2.2.	L1e — L7e	Linkage to wheels (including other than mechanical means; specify for front and rear):
6.17.2.2.1.	L1e — L7e	A brief description of the electrical/electronic components:
6.17.2.3.	L1e — L7e	Diagram of the steering transmission:
6.17.2.4.	L2e, L5e, L6e, L7e	Schematic diagram(s) of the steering control(s):
6.17.2.5.	L2e, L5e, L6e, L7e	Range and method of adjustment of the steering control(s):
6.17.2.6.	L2e, L5e, L6e, L7e	Method of assistance:
6.17.3.		Maximum steering angle of the wheels
6.17.3.1.	L1e — L7e	To the right:degrees; number of turns of the steering wheel (or equivalent data):
6.17.3.2.	L1e — L7e	To the left:degrees; number of turns of the steering wheel (or equivalent data):
6.18.		Tyres/wheels combination
6.18.1.		Tyres:
6.18.1.1.		Size designation

Item No.	(Sub) categories	Detailed information
6.18.1.1.1.	L1e — L7e	Axle 1:
6.18.1.1.2.	L1e — L7e	Axle 2:
6.18.1.1.3.	L4e	Sidecar wheel:
6.18.1.4.	L1e — L7e	Tyre pressure(s) as recommended by the vehicle manufacturer: kPa

Model information document relating to EU type-approval of a type of/a type of a vehicle with regard  $to^{(4)}$  an installation of tyres system

Appendix 12

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle(2):
0.11.	L1e — L7e	Type-approval marks for components and separate technical units <sup>(19)</sup> :
0.11.1.	L1e — L7e	Method of attachment:
0.11.2.	L1e — L7e	Photographs and/or drawings of the location of the type-approval mark (completed example with dimensions):
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed (22):

Item No.	(Sub) categories	Detailed information
1.8.3.	L1e — L7e	Maximum net power combustion engine:
1.8.4.	L1e — L7e	Maximum net torque combustion engine:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ):
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor:
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s):
2.		MASSES AND DIMENSIONS
		(in kg and mm.) Refer to drawings where applicable
2.1		Range of vehicle mass (overall)
2.1.1.	L1e — L7e	Mass in running order:kg
2.1.1.1.	L1e — L7e	Distribution of mass in running order between the axles:
2.1.2.	L1e — L7e	Actual mass:kg
2.1.2.1.	L1e — L7e	Distribution of actual mass between the axles:kg
2.1.3.	L1e — L7e	Technically permissible maximum laden mass:kg
2.1.3.1.	L1e — L7e	Technically permissible maximum mass on front axle:kg
2.1.3.2.	L1e — L7e	Technically permissible maximum mass on rear axle:kg
2.1.3.3.	L4e	Technically permissible maximum mass on sidecar axle:kg
2.1.5.	L1e — L7e	Maximum pay mass declared by manufacturer:kg
2.1.7.	L1e — L7e	Technically permissible maximum towable mass in case of <sup>(4)</sup> : Braked:kg Unbraked:kg
2.1.7.1	L1e — L7e	Technically permissible maximum laden mass of the combination:kg
2.1.7.2.	L1e — L7e	Technically permissible maximum mass at the coupling point:kg
6.		INFORMATION ON FUNCTIONAL SAFETY
6.18.		Tyres/wheels combination
6.18.1.		Tyres:
6.18.1.1.		Size designation
6.18.1.1.1.	L1e — L7e	Axle 1:
6.18.1.1.2.	L1e — L7e	Axle 2:

Item No.	(Sub) categories	Detailed information
6.18.1.1.3.	L4e	Sidecar wheel:
6.18.1.2.	L1e — L7e	Minimum load-capacity index: with the maximum load on each tyre: kg
6.18.1.3.	L1e — L7e	Minimum-speed category symbol compatible with the theoretical maximum design vehicle speed:
6.18.1.4.	L1e — L7e	Tyre pressure(s) as recommended by the vehicle manufacturer: kPa
6.18.2.		Wheels:
6.18.2.1.	L1e — L7e	Rim size(s):
6.18.2.2.	L1e — L7e	Categories of use compatible with the vehicle:
6.18.2.3.	L1e — L7e	Nominal rolling circumference:

 ${\it Appendix} \ 13$  Model information document relating to EU type-approval of an audible warning device as a component

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.	L1e — L7e	Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.1.		Audible warning devices
6.1.1.	L1e — L7e	Summary description of device(s) used and their purpose:
6.1.2.	L1e — L7e	Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle:
6.1.4.	L1e — L7e	Electrical/pneumatic circuit diagram:
6.1.4.1.	L1e — L7e	Voltage: AC/DC <sup>(4)</sup>
6.1.4.2.	L1e — L7e	Rated voltage or pressure:

## Appendix 13a

Model information document relating to EU type-approval of a type of (or a type of a vehicle with regard to) a vehicle occupant protection, including interior fittings, head restraint and vehicle doors system

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.7.	L4e, L5e-B, L6e-B, L7e- A2, L7e-B2, L7e-C	Hand of drive: left/right/centre <sup>(4)</sup> :
6.		INFORMATION ON FUNCTIONAL SAFETY
6.16.		Seating positions (saddles and seats)
6.16.1.	L1e — L7e	Number of seating positions:
6.16.1.1.	L2e, L5e, L6e, L7e	Location and arrangement <sup>(8)</sup> :
6.16.2.	L1e — L7e	Seating position configuration: seat/saddle <sup>(4)</sup>

Item No.	(Sub) categories	Detailed information
6.16.3.	L1e — L7e	Description and drawings of:
6.16.3.1.	L1e — L7e	The seats and their anchorages:
6.16.3.2.	L1e — L7e	The adjustment system:
6.16.3.3.	L1e — L7e	The displacement and locking systems:
6.16.3.4.	L1e — L7e	The seat-belt anchorages incorporated in the seat structure:
6.16.3.5.	L1e — L7e	The parts of the vehicle used as anchorages:
6.16.4.	L2e, L4e, L5e- B, L6e-B, L7e	Coordinates or drawing of the R-point(s) of all seating positions:
6.16.4.1.	L2e, L4e, L5e- B, L6e-B, L7e	Driver's seat:
6.16.4.2.	L2e, L4e, L5e- B, L6e-B, L7e	All other seating positions:
6.16.5.	L1e — L7e	Design torso angle:
6.16.5.1.	L1e — L7e	Driver's seat:
6.16.5.2.	L1e — L7e	All other seating positions:
6.20.		Vehicle occupant protection, including interior fittings and vehicle doors
6.20.1.		Bodywork
6.20.1.1.	L2e, L5e-B, L6e-B, L7e	Materials used and methods of construction:
6.20.2.		Occupant doors, latches and hinges
6.20.2.1.	L2e, L5e, L6e, L7e	Number of doors, and its configuration, dimensions and maximum angle of opening <sup>(5)</sup> :
6.20.2.2.	L2e, L5e, L6e, L7e	Drawing of latches and hinges and of their position in the doors:
6.20.2.3.	L2e, L5e, L6e, L7e	Technical description of latches and hinges:
6.20.2.4.	L2e, L5e, L6e, L7e	Details, including dimensions, of entrances, steps and necessary handles where applicable:
6.20.3.		Interior protection for occupants)
6.20.3.1.	L2e, L5e, L6e, L7e	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, seats and the rear part of seats), roof and opening roof, backrest:
6.20.4.		Head restraints
6.20.4.1.	L2e, L5e, L6e, L7e	Head restraints: integrated/detachable/separate <sup>(4)</sup>

Item No.	(Sub) categories	Detailed information
6.20.4.2.	L2e, L5e, L6e, L7e	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:
6.20.4.3.	L2e, L5e, L6e, L7e	In the case of a 'separate' head restraint
6.20.4.3.1.	L2e, L5e, L6e, L7e	Detailed description of the structural zone to which the head restraint is intended to be fixed:
6.20.4.3.2.	L2e, L5e, L6e, L7e	Scale drawings of the significant parts of the structure and the head restraint:

Appendix 14

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.5.		Glazing, windscreen wipers and washers, and defrosting and demisting systems
6.5.1.		Windscreen
6.5.1.1.	L2e, L5e, L6e, L7e	Materials used:
6.5.1.2.	L2e, L5e, L6e, L7e	Method of mounting:

Item No.	(Sub) categories	Detailed information
6.5.1.3.	L2e, L5e, L6e, L7e	Angle of inclination:
6.5.1.4.	L2e, L5e, L6e, L7e	Windscreen accessories and the position in which they are fitted, together with a brief description of any electrical/electronic components:
6.5.1.5.	L2e, L5e, L6e, L7e	Drawing of the windscreen with dimensions:

 ${\it Appendix} \ 15$  Model information document relating to EU type-approval of a windscreen washer device as a component/STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.7.		Windscreen washer
6.7.1.	L2e, L5e, L6e, L7e	Detailed technical description (including photographs or drawings):
6.7.2.	L2e, L5e, L6e, L7e	Capacity of the reservoir: 1

 ${\it Appendix~16}$  Model information document relating to EU type-approval of a rearward visibility device as a component/STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.12.		Rearward visibility
6.12.1.		Rear-view mirrors (stating for each mirror)
6.12.1.1.	L1e — L7e	Drawing(s) for the identification of the mirror showing the position of the mirror relative to the vehicle structure:
6.12.1.3.	L1e — L7e	A brief description of the electronic components of the adjustment system:

Item No.	(Sub) categories	Detailed information
6.12.2.	L1e — L7e	Devices for indirect vision other than mirrors
6.12.2.1.	L1e — L7e	Description of the device:
6.12.2.2.	L1e — L7e	In the case of a camera-monitor device, the detection distance (mm), contrast, luminance range, glare correction, display performance (black and white/colour <sup>(4)</sup> ), image repetition frequency, luminance reach of the monitor <sup>(4)</sup> :
6.12.2.3.	L1e — L7e	Sufficiently detailed drawings to identify the complete device, including installation instructions; the position for the EU type-approval mark has to be indicated on the drawings:

 ${\it Appendix} \ 17$  Model information document relating to EU type-approval of safety belts as a STU

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.14.		Safety belts and/or other restraints
6.14.2.	L2e, L4e, L5e-B, L6e-B, L7e	Description of a specific type of belt, with one anchorage attached to the seat back-rest or incorporating an energy-dissipation device:
6.14.3.	L2e, L4e, L5e-B, L6e-B, L7e	Number and location of the anchorages:
6.14.4.	L2e, L4e, L5e-B, L6e-B, L7e	Brief description of electrical/electronic components:

 ${\it Appendix~18}$  Model information document relating to EU type-approval of a seating position (saddle/seat) as a component/STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Туре:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
6.		INFORMATION ON FUNCTIONAL SAFETY
6.16.		Seating positions (saddles and seats)
6.16.1.	L1e — L7e	Number of seating positions:
6.16.1.1.	L2e, L5e, L6e, L7e	Location and arrangement <sup>(8)</sup> :
6.16.2.	L1e — L7e	Seating position configuration: seat/saddle <sup>(4)</sup>
6.16.3.	L1e — L7e	Description and drawings of:
6.16.3.1.	L1e — L7e	The seats and their anchorages:
6.16.3.2.	L1e — L7e	The adjustment system:

Item No.	(Sub) categories	Detailed information
6.16.3.3.	L1e — L7e	The displacement and locking systems:
6.16.3.4.	L1e — L7e	The seat-belt anchorages incorporated in the seat structure:
6.16.3.5.	L1e — L7e	The parts of the vehicle used as anchorages:
6.16.4.	L2e, L4e, L5e-B, L6e-B, L7e	Coordinates or drawing of the R-point(s) of all seating positions:
6.16.4.1.	L2e, L4e, L5e-B, L6e-B, L7e	Driver's seat:
6.16.4.2.	L2e, L4e, L5e-B, L6e-B, L7e	All other seating positions:
6.16.5.	L1e — L7e	Design torso angle:
6.16.5.1.	L1e — L7e	Driver's seat:
6.16.5.2.	L1e — L7e	All other seating positions:
6.16.6.	L1e — L7e	Range of seat adjustment:
6.16.6.1.	L1e — L7e	Driver's seat:
6.16.6.2.	L1e — L7e	All other seating positions:

 ${\it Appendix} \ 19$  Model information document relating to EU type-approval of a trailer coupling device as a STU

Item No.	(Sub) categories	Detailed information
B.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:km/h
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed <sup>(22)</sup> :
1.8.3.	L1e — L7e	Maximum net power combustion engine:
1.8.4.	L1e — L7e	Maximum net torque combustion engine:

Item No.	(Sub) categories	Detailed information
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ): kW at min <sup>-1</sup>
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor: Nm at min <sup>-1</sup>
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s):
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s):
1.8.9.	L1e — L7e	Maximum peak power for propulsion(s):
2.		MASSES AND DIMENSIONS
		(in kg and mm.) Refer to drawings where applicable
7.		INFORMATION ON VEHICLE CONSTRUCTION
7.1.		Coupling devices and attachments
7.1.1.	L1e — L7e	L-category vehicle equipped with coupling device: yes/no/optional <sup>(4)</sup>
7.1.2.	L1e — L7e	Guidelines and information for consumers in all EU languages regarding the impact on the driveability of using a trailer with an L-category vehicle included in the owner's manual: yes/no <sup>(4)</sup>
7.1.3.	L1e — L7e	For coupling-device approved as separate technical unit: installation and operating instructions added to documentation: yes/no <sup>(4)</sup>
7.1.4.	L1e — L7e	Photograph and/or drawings showing the position and the construction of the coupling-devices:
7.1.5.	L1e — L7e	Instructions for attaching the coupling-type to the vehicle and photographs or drawings of the fixing points on 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:
7.1.6.	L1e — L7e	Attachment points for a secondary coupling and/or breakaway cable (drawings and pictures may be used as appropriate): yes/no <sup>(4)</sup>

 ${\it Appendix} \ 20$  Model information document relating to EU type-approval of devices to prevent unauthorised use as a STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
7.		INFORMATION ON VEHICLE CONSTRUCTION
7.2.		Devices to prevent unauthorised use
7.2.1.		Protective device
7.2.1.1.	L1e — L7e	Summary description of protective device(s) used:
7.2.2.		Vehicle immobiliser
7.2.2.1.	L1e — L7e	Technical description of the vehicle immobiliser and of the measures taken against inadvertent activation:
7.2.3.		Alarm system
7.2.3.1.	L1e — L7e	Description of the alarm system and of the vehicle parts involved in its installation:.
7.2.3.2.	L1e — L7e	List of the main components comprising the alarm system:

 ${\it Appendix~20a}$  Model information document relating to EU type-approval of a fuel tank as a STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
4.		GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION PERFORMANCE
4.3.		Evaporative emission control system
4.3.7.	L1e — L7e	Schematic drawing of the fuel tank, indicating capacity and material:
7.		INFORMATION ON VEHICLE CONSTRUCTION
7.5.		Fuel storage
7.5.1.1.		Fuel tank
7.5.1.1.1.	L1e — L7e	Maximum capacity:
7.5.1.1.2.	L1e — L7e	Materials used:

Item No.	(Sub) categories	Detailed information
7.5.1.1.3.	L1e — L7e	Fuel tank inlet: restricted orifice/label <sup>(4)</sup>
7.5.1.3.	L1e — L7e	Drawing and technical description of the tank with connections and lines of the breathing and venting system, locks, valves, fastening devices:
7.5.2.		Compressed natural gas (CNG) container
7.5.2.1.	L1e — L7e	Applicable information document set out in UNECE regulation No 110 (*) as prescribed for vehicle category M1 shall supplement this information document with regards to the CNG container and related equipment.
7.5.3.	L1e — L7e	Liquefied petroleum gas (LPG)container(s)
7.5.3.1.	L1e — L7e	Applicable information document set out in UNECE regulation No 67 (**) as prescribed for vehicle category M1 shall supplement this information document with regards to the LPG container and related equipment.

<sup>(\*)</sup> OJ L 120, 7.5.2011, p. 1. (\*\*) OJ L 72, 14.3.2008, p. 1.

 ${\it Appendix~21}$  Model information document relating to EU type-approval of passenger handholds as a STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
7.		INFORMATION ON VEHICLE CONSTRUCTION
7.7.		Passenger handholds and footrests
7.7.1.		Handholds
7.7.1.1.	L1e — L7e	Configuration: strap and/or handle <sup>(4)</sup>
7.7.1.2.	L1e — L7e	Photographs and/or drawings showing the location and the construction:

 $\label{eq:Appendix 22} \mbox{Model information document relating to EU type-approval of footrests as a STU}$ 

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L1e — L7e	Make(s) (trade name(s) of manufacturer):
0.8.	L1e — L7e	Type:
0.8.1.	L1e — L7e	Commercial name(s) (if available):
0.8.2.	L1e — L7e	Type-approval number(s) (if available):
0.8.3.	L1e — L7e	Type-approval(s) issued on (date, if available):
0.9.	L1e — L7e	Company name and address of manufacturer:
0.9.1.	L1e — L7e	Name(s) and address(es) of assembly plants:
0.9.2.	L1e — L7e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L1e — L7e	Type <sup>(17)</sup> :
0.10.2.	L1e — L7e	Variant <sup>(17)</sup> :
0.10.3.	L1e — L7e	Version <sup>(17)</sup> :
0.10.4.	L1e — L7e	Commercial name(s) (if available):
0.10.5.	L1e — L7e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L1e — L7e	Description of overall quality-assurance management systems.
7.7.		Passenger handholds and footrests
7.7.2.		Footrests
7.7.2.2.	L1e — L7e	Photographs and/or drawings showing the location and the construction:

 ${\it Appendix} \ 23$  Model information document relating to EU type-approval of a side-car as a STU

Item No.	(Sub) categories	Detailed information
В.		General information concerning systems, components or separate technical units
0.7.	L4e	Make(s) (trade name(s) of manufacturer):
0.8.	L4e	Type:
0.8.1.	L4e	Commercial name(s) (if available):
0.8.2.	L4e	Type-approval number(s) (if available):
0.8.3.	L4e	Type-approval(s) issued on (date, if available):
0.9.		Company name and address of manufacturer:
0.9.1.	L4e	Name(s) and address(es) of assembly plants:
0.9.2.	L4e	Name and address of manufacturer's authorised representative, if any:
0.10.		Vehicle(s) for which the system/separate technical unit is intended for (21):
0.10.1.	L4e	Type <sup>(17)</sup> :
0.10.2.	L4e	Variant <sup>(17)</sup> :
0.10.3.	L4e	Version <sup>(17)</sup> :
0.10.4.	L4e	Commercial name(s) (if available):
0.10.5.	L4e	Category, subcategory and sub-subcategory of vehicle <sup>(2)</sup> :
C.		General information concerning vehicle, systems, components or separate technical units
0.12.		Conformity of production
0.12.1.	L4e	Description of overall quality-assurance management systems.
1.		GENERAL CONSTRUCTION CHARACTERISTICS
1.8.		Propulsion unit performance
1.8.1.	L3e, L4e, L5e, L7e-A, L7e-B2	Declared maximum vehicle speed:
1.8.2.	L1e, L2e, L6e, L7e-B1, L7e-C	Maximum design vehicle speed <sup>(22)</sup> : km/h and gear in which it is reached:
1.8.3.	L1e — L7e	Maximum net power combustion engine: kW at min <sup>-1</sup> at A/F ratio:
1.8.4.	L1e — L7e	Maximum net torque combustion engine: Nm at min-1 at A/F ratio:
1.8.5.	L1e — L7e	Maximum continuous-rated power electric motor (15/30 <sup>(4)</sup> minutes power <sup>(27)</sup> ):
1.8.6.	L1e — L7e	Maximum continuous-rated torque electric motor:

Item No.	(Sub) categories	Detailed information
1.8.7.	L1e — L7e	Maximum continuous total power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:
1.8.8.	L1e — L7e	Maximum continuous total torque for propulsion(s): Nm at min <sup>-1</sup> at A/F ratio:
8.9.	L1e — L7e	Maximum peak power for propulsion(s): kW at min <sup>-1</sup> at A/F ratio:
<u>.</u>		MASSES AND DIMENSIONS
		(in kg and mm.) Refer to drawings where applicable
2.1		Range of vehicle mass (overall)
2.1.1.	L4e	Mass in running order: kg
2.1.1.1.	L4e	Distribution of mass in running order between the axles: kg
2.1.2.	L4e	Actual mass: kg
2.1.2.1.	L4e	Distribution of actual mass between the axles: kg
2.1.3.	L4e	Technically permissible maximum laden mass: kg
2.1.3.1.	L1e — L7e	Technically permissible maximum mass on front axle: kg
2.1.3.2.	Lle — L7e	Technically permissible maximum mass on rear axle: kg
2.1.3.3.	L4e	Technically permissible maximum mass on sidecar axle: kg
2.1.3.3.	L4e	Maximum hill-starting ability at the maximum technically permissible mass declared
1.4.	L4e	the manufacturer: % slope
2.1.5.	L4e	Maximum pay mass declared by manufacturer: kg
2.1.8.	L4e	Mass of the optional equipment: kg
2.2.		Range of vehicle dimensions (overall)
2.2.1.	L4e	Length: mm
2.2.2.	L4e	Width: mm
2.2.3.	L4e	Height: mm
2.2.4.	L4e	Wheelbase: mm Wheelbase sidecar <sup>(28)</sup> : mm
2.2.5.		Track width
2.2.5.1.	L4e equipped with twinned wheels	Track width front: mm.
2.2.5.2.	L4e equipped with twinned wheels	Track width rear: mm.
2.2.5.3.	L4e	Track width sidecar: mm.

Item No.	(Sub) categories	Detailed information	
6.		INFORMATION ON FUNCTIONAL SAFETY	
6.2.		Braking, including anti-lock and combined braking systems	
6.2.1.	L4e	Characteristics of the brakes, 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, levers, pedals (4):	
6.2.2.	L4e	Operating diagram, description and/or drawing of the braking system, including details and drawings of the transmission and controls as well as a brief description of the electrical and/or electronic components used in the braking system <sup>(4)</sup> :	
6.2.2.1.	L4e	Front, rear and sidecar brakes, disc and/or drum <sup>(4)</sup> :	
6.2.2.2.	L4e	Parking braking system:	
6.2.2.3.	L4e	Any additional braking system:	
6.2.4.	L4e	Anti-lock/Combined braking system	
6.2.4.1.	L4e	Anti-lock braking system: yes/no/optional <sup>(4)</sup>	
6.2.4.2.	L4e	Combined braking system: yes/no/optional <sup>(4)</sup>	
6.2.4.3.	L4e	Anti-lock and combined braking system: yes/no/optional <sup>(4)</sup>	
6.2.4.4.	L4e	Schematic drawing(s):	
6.2.5.	L4e	Hydraulic reservoir(s):	
6.2.6.	L4e	Particular characteristics of the braking system(s):	
6.2.6.1.	L4e	Brake shoes and/or pads <sup>(4)</sup> :	
6.2.6.2.	L4e	Linings and/or pads (indicate make, type, grade of material or identification mark):	
6.2.6.3.	L4e	Brake levers and/or pedals <sup>(4)</sup> :	
6.2.6.4.	L4e	Other devices (where applicable): drawing and description:	
6.5.		Glazing, windscreen wipers and washers, and defrosting and demisting systems	
6.5.1.		Windscreen	
6.5.1.1.	L4e	Materials used:	
6.5.1.2.	L4e	Method of mounting:	
6.5.1.3.	L4e	Angle of inclination:	
6.5.1.4.	L4e	Windscreen accessories and the position in which they are fitted, together with a brief description of any electrical/electronic components:	
6.5.1.5.	L4e	Drawing of the windscreen with dimensions:	

Item No.	(Sub) categories	Detailed information
6.11.		Installation of lighting, light-signalling devices, including automatic switching of lighting
6.11.1.	L4e	List of all devices (mentioning the number, make(s),type, component type-approval mark(s), the maximum intensity of the main-beam headlamps, colour, the corresponding tell-tale):
6.11.2.	L4e	Diagram showing the location of the lighting and light-signalling devices:
6.11.3.	L4e	Hazard warning lamps:
6.11.4.	L4e	Brief description of the electrical and/or electronic components used in the lighting system and in the light-signalling system:
6.11.5.	L4e	For every lamp and reflector, supply the following information (in writing and/or by diagram):
6.11.5.1.	L4e	Drawing showing the extent of the illuminating surface:
6.11.5.2.	L4e	Method used to define the apparent surface in accordance with point 2.10 of UNECE Regulation No 48 (OJ L 323, 6.12.2011, p. 46):
6.11.5.3.	L4e	Axis of reference and centre of reference:
6.11.5.4.	L4e	Method of operation of concealable lamps:
6.11.6.	L4e	Description/drawing and type of headlamp levelling device (e.g. automatic, stepwise manually adjustable, continuously manually adjustable) <sup>(4)</sup> :
6.11.6.1.	L4e	Control device:
6.11.6.2.	L4e	Reference marks:
6.11.6.3.	L4e	Marks assigned for loading conditions:
6.12.		Rearward visibility
6.12.1.		Rear-view mirrors (stating for each mirror)
6.12.1.1.	L4e	Drawing(s) for the identification of the mirror showing the position of the mirror relative to the vehicle structure:
6.12.1.2.	L4e	Details of the method of attachment including that part of the vehicle structure to which it is attached:
6.12.1.3.	L4e	A brief description of the electronic components of the adjustment system:
6.12.2.	L4e	Devices for indirect vision other than mirrors
6.12.2.1.	L4e	Description of the device:
6.12.2.2.	L4e	In the case of a camera-monitor device, the detection distance (mm), contrast, luminance range, glare correction, display performance (black and white/colour <sup>(4)</sup> ), image repetition frequency, luminance reach of the monitor <sup>(4)</sup> :

Item No.	(Sub) categories			Detaile	ed informatio	n		
6.12.2.3.	L4e	Sufficiently detailed drawings to identify the complete device, including installation instructions; the position for the EU type-approval mark has to be indicated on the drawings:						
6.14.		Safety belts and/or other restraints						
6.14.1.	L4e	Number and position of safety belts and restraint systems and seats on which they can be used, please fill out table below:						
		(L = left side, R =	= right	side, $C = cent$	re)			
		Sa	fety be	elt configuratio	on and asso	ciated inforr	nation —	
					nplete EU oproval mark	Variant, i applicable	f device	adjustment ce for height icate yes/no/ optional)
		First row of seats		С				
		L = left, C= centre,	R=right	•		•	•	
6.14.2.	L4e	Description of a sp incorporating an e						
6.14.3.	L4e	Number and locati	ion of	the anchorages				
6.14.4.	L4e	Brief description of	of elect	rical/electronic	components	s:		
6.15.	L4e	Safety belt ancho	rages					
6.15.1.	L4e	Photographs and/o dimensions of the						
6.15.2.	L4e	Drawings of the a attached (together						
6.15.3.	L4e	Designation of the vehicle:						
		Safety-b	elt and	chorage config	uration and	d associated	informatio	n
							Anchora	ge location
							Vehicle structure	Seat structure
		Centre seat {		ower anchorages		right left		
6.15.4.	L4e	Type-approval ma	rk for	each position:				
6.15.5.	L4e	Special devices (ex	xample	: seat-height ac	ljustment, p	reloading dev	rice, etc.):	
			r drow	. 0.1.1	ماد باستنداد	wing the true	affaatissa	
6.15.6.	L4e	Photographs and/o dimensions of the						

Item No.	(Sub) categories	Detailed information	
6.16.		Seating positions (saddles and seats)	
6.16.1.	L4e	Number of seating positions:	
6.16.1.1.	L4e	Location and arrangement <sup>(8)</sup> :	
6.16.2.	L4e	Seating position configuration: seat/saddle <sup>(4)</sup>	
6.16.3.	L4e	Description and drawings of:	
6.16.3.1.	L4e	The seats and their anchorages:	
6.16.3.2.	L4e	The adjustment system:	
6.16.3.3.	L4e	The displacement and locking systems:	
6.16.3.4.	L4e	The seat-belt anchorages incorporated in the seat structure:	
6.16.3.5.	L4e	The parts of the vehicle used as anchorages:	
6.16.4.	L4e	Coordinates or drawing of the R-point(s) of all seating positions:	
6.16.4.1.	L4e	Driver's seat:	
6.16.4.2.	L4e	All other seating positions:	
6.16.5.	L4e	Design torso angle:	
6.16.6.	L4e	Range of seat adjustment:	
6.16.6.1.	L4e	Driver's seat:	
6.16.6.2.	L4e	All other seating positions:	
6.17.		Steer-ability, cornering properties and turn-ability	
6.17.1.	L4e	Schematic diagram of steered axle(s) showing steering geometry:	
6.17.2.		Transmission and control of steering	
6.17.2.1.	L4e	Configuration of steering transmission (specify for front and rear):	
6.17.2.2.	L4e	Linkage to wheels (including other than mechanical means; specify for front and rear):	
6.17.2.2.1.	L4e	A brief description of the electrical/electronic components:	
6.17.2.3.	L4e	Diagram of the steering transmission:	
6.17.2.4.	L4e	Schematic diagram(s) of the steering control(s):	
6.17.2.5.	L4e	Range and method of adjustment of the steering control(s):	
6.17.2.6.	L4e	Method of assistance:	

# <u>▼B</u>

Item No.	(Sub) categories	Detailed information	
6.17.3.		Maximum steering angle of the wheels	
6.17.3.1.	L4e	To the right: degrees; number of turns of the steering wheel (or equivalent data):	
6.17.3.2.	L4e	To the left:degrees; number of turns of the steering wheel (or equivalent data):	
6.18.		Tyres/wheels combination	
6.18.1.		Tyres:	
6.18.1.1.		Size designation	
6.18.1.1.1.	L4e	Axle 1:	
6.18.1.1.2.	L4e	Axle 2:	
6.18.1.1.3.	L4e	Sidecar wheel:	
6.18.1.2.	L4e	Minimum load-capacity index: with the maximum load on each tyre: kg	
6.18.1.3.	L4e	Minimum-speed category symbol compatible with the theoretical maximum design vehicle speed:	
6.18.1.4.	L4e	Tyre pressure(s) as recommended by the vehicle manufacturer: kPa	
6.18.2.		Wheels:	
6.18.2.1.	L4e	Rim size(s):	
6.18.2.2.	L4e	Categories of use compatible with the vehicle:	
6.18.2.3.	L4e	Nominal rolling circumference:	
6.20.		Vehicle occupant protection, including interior fittings and vehicle doors	
6.20.3.		Interior protection for occupants)	
6.20.3.1.	L4e	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, seats and the rear part of seats), roof and opening roof, backrest:	
6.20.4.		Head restraints	
6.20.4.1.	L4e	Head restraints: integrated/detachable/separate <sup>(4)</sup>	
6.20.4.2.	L4e	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:	
6.20.4.3.	L4e	In the case of a 'separate' head restraint	
6.20.4.3.1.	L4e	Detailed description of the structural zone to which the head restraint is intended to be fixed:	
6.20.4.3.2.	L4e	Scale drawings of the significant parts of the structure and the head restraint:	

Item No.	(Sub) categories	Detailed information	
7.		INFORMATION ON VEHICLE CONSTRUCTION	
7.4.		External projections	
7.4.1.	L4e	General arrangement (drawing or photographs accompanied if necessary by dimensional details and/or text) indicating the position of the attached sections and views, of any parts of the exterior surface which can be regarded as critical for external projections, for example, and where relevant: bumpers, floor line, door and window pillars, air-intake grilles, radiator grille, windscreen wipers, rain gutter channels, handles, slide rails, flaps, door hinges and locks, hooks, eyes, winches, decorative trim, badges, emblems and recesses and any other parts of the exterior surface which can be regarded as critical (e.g. lighting equipment):	
7.7.		Passenger handholds and footrests	
7.7.1.		Handholds	
7.7.1.1.	L4e	Configuration: strap and/or handle <sup>(4)</sup>	
7.7.2.		Footrests	
7.7.2.2.	L4e	Photographs and/or drawings showing the location and the construction:	

### Appendix 24

Manufacturer's declaration for vehicles capable of converting their performance level from subcategory (L3e/L4e)-A2 to (L3e/L4e)-A3 and vice versa

Manufacturer's declaration of conversion of (L3e/L4e)-A2 to (L3e/L4e)-A3 motorcycle characteristics and vice-versa

A duly-completed version of this statement shall be included in the information folder.

The u	indersigned: [(full name and position)]
0.4.	Company name and address of manufacturer:
0.4.2.	Name and address of the manufacturer's representative (if any) <sup>(0)</sup> :

### Declares that

## The (L3e/L4e)-A2 or (L3e/L4e)-A3<sup>(1)</sup> motorcycle:

0.2.	Type <sup>(4)</sup> :
0.2.1.	Variant(s) <sup>(4)</sup> :
0.2.2.	Version(s) <sup>(4)</sup> :
0.2.3.	Commercial name(s) (if available):
0.3.	Category, subcategory and sub-subcategory of vehicle <sup>(5)</sup> :
1.	Type-approval number (if available):
1.1.	Type-approval issued on (date, if available):
3.2.2.1.	PCUs/ECUs <sup>(1)</sup> software identification number(s): and calibration verification number(s):

is technically suitable to be retrofitted to the (L3e/L4e)-A2 or (L3e/L4e)-A3<sup>(1)</sup> vehicle identified below:

▼ <u>M1</u>		
	0.2.	Type <sup>(4)</sup> :
	0.2.1.	Type <sup>(4)</sup> :
	0.2.2.	Version(s) <sup>(4)</sup> :
	0.2.3.	Commercial name(s) (if available):
	0.3.	Category, subcategory and sub-subcategory of vehicle <sup>(5)</sup> :
	1.	Type-approval number (if available):
	1.1.	Type-approval issued on (date, if available):
	3.2.2.1.	PCUs/ECUs <sup>(1)</sup> software identification number(s): and calibration verification number(s):

With the following technical characteristics:					
General c	General construction characteristics <sup>(3)</sup>				
1.8.	Maximum design vehicle speed:				
1.9.	$\label{eq:maximum net power: min-1} Maximum net power: \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$				
1.10.	Ratio maximum net power/mass of the vehicle in running order:				
Environm	nental performance <sup>(3)</sup>				
4.0.6.	Sound level measured according to <sup>(2)</sup> :				
4.0.6.1.	Stationary: dB(A) at engine speed: min <sup>-1</sup>				
4.0.6.2.	Drive-by:				
4.0.6.3.	Limit value for $L_{urban}^{(0)(7)}$ :				
3.2.15.	Exhaust emissions measured according to <sup>(2)</sup> :				
3.2.15.1.	Type I test: tailpipe emissions after cold start, including the deterioration factor:				
CO:	mg/km				
THC:	mg/km				
NMHC <sup>(0)</sup> :	mg/km				
NOx:	mg/km				
THC+NO	x <sup>(0)</sup> : mg/km				
PM <sup>(0)</sup> :	mg/km				
8.7.3.2.	Type II test: tailpipe emissions at (increased) idle and free acceleration:				
HC:	ppm at normal idling speed and:				
CO:	% vol. at normal idling speed and:% vol. at high idle speed				
8.7.3.2.1.	Smoke corrected absorption coefficient:				

Energy efficiency measured according to <sup>(2)(3)</sup> :				
4.0.2.	Fuel consumption <sup>(0)(6)</sup> :	1 or kg/100 km		
4.0.3.	CO <sub>2</sub> emissions <sup>(0)(6)</sup> :	g/km		
4.0.4.	Energy consumption <sup>(0)(6)</sup> :			
4.0.5.	Electric range <sup>(0)</sup> :	km		
by modify		ware, etc.:		
Place:		Date:		
Signature:		Name and position in the company:		

Explanatory notes relating to Appendix 24

(Footnotes and explanations not to be stated on the Manufacturer's declaration)

- (0) Suppress the entry if not applicable.
- (1) Delete where not applicable (no deletion required when more than one entry is applicable).
- (2) Number of the Commission Delegated Regulation and latest amending Commission Delegated Regulation applicable to the type-approval. In the case of a Commission Delegated Regulation with two or more implementation stages; indicate also the implementation stage and/or code. Alternatively indicate the number of the applicable UNECE Regulation.
- (3) Round the units of measure to the nearest whole number for dB(A), Wh/ km, mg/ km, g/km, ppm and km; to the nearest tenth for kW, 1/100 km, kg/ 100 km, m<sup>3</sup>/ 100 km and for % vol; and to the nearest hundredth for kW/ kg and for m<sup>-1</sup>.
- (4) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I.
- (5) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A2' for a medium-performance motorcycle.
- (6) For externally chargeable hybrid electric vehicles, the 'weighted, combined' values for CO<sub>2</sub>, fuel consumption and electric energy consumption shall be indicated.
- (7) Only applicable for vehicle category L3e.

## Appendix 25

Manufacturer's declaration on powertrain tampering prevention measures (anti-tampering)
1. Vehicle manufacturer's declaration on powertrain tampering prevention measures (anti-tampering):
<ul> <li>not to market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category;</li> </ul>
- manufacturer-facilitated modifications shall not increase the propulsion unit performance of the vehicle;
- modifications and interchangeability of parts and components
Manufacturer's declaration not to market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category
A duly-completed version of this statement shall be included in the information folder.
0.4. Company name and address of manufacturer:
0.4.2. Name and address of the manufacturer's representative (if any) (°):
Hereby declares that:
For the L1e/L2e, (L3e/L4e)-A1/(L3e/L4e)-A2/L6e/L7e (1) category vehicle:
0.1. Make (trade name of the manufacturer):
0.2. Type (4):
0.2.1. Variant(s) (4):
0.2.2. Version(s) (4):
0.2.3. Commercial name(s) (if available):
0.3. Category, subcategory and sub-subcategory of vehicle (5):

Will not market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category;

and that

The manufacturer-facilitated modifications of the following characteristics:

- (a) spark delivery of the ignition system if applicable;
- (b) fuel feed and delivery system;
- (c) air-intake system including air filter(s) (modification or removal);
- (d) propulsion battery configuration or electric power to the electric motor(s) if applicable;
- (e) drive-train;
- (f) and the control unit(s) that control(s) the propulsion unit performance of the powertrain.

## **▼**<u>C2</u>

shall comply with the requirements set out in point 2.6. of Annex II to Commission Delegated Regulation (EU) No 44/2014

**▼**<u>B</u>

# For L3e-A2/L4e-A2/L7e $(^{\rm l})$ category vehicles the manufacturer

#### declares that:

The modifications and interchangeability of:

- (a) spark delivery of the ignition system, if applicable;
- (b) fuel feed and delivery system;
- (c) air-intake system including air filter(s) (modification or removal);
- (d) the drive-train;
- (e) the control unit(s) for the propulsion unit performance of the powertrain;
- (f) removal of any component (mechanical, electrical, structural, etc.) which limits full engine load, leading to any change in the propulsion unit performance as approved in accordance with Annex II (A) to Regulation (EU) No 168/2013

## **▼**<u>C2</u>

shall comply with the requirements set out in point 5.2. of Annex II to Commission Delegated Regulation (EU) No 44/2014

**▼**B

Place:	Date:
Signature:	Name and position in the company:

#### Propulsion unit performance

Explanatory notes relating to Appendix 25

(Footnotes and explanations not to be stated on the Manufacturer's declaration)

- (0) Suppress the entry if not applicable.
- (1) Delete where not applicable (no deletion required when more than one entry is applicable).
- (4) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I.
- (5) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.

Explanatory notes relating to Annex I

(1)	For internal combustion engine.
(2)	Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.
(3)	Suppress the entry if not applicable.
(4)	Delete where not applicable (no deletion required when more than one entry is applicable).
(5)	Indicate the configuration by following codes:
	— R: right side of the vehicle
	— L: left side of the vehicle
	— F: front side of the vehicle
	— RE: rear side of the vehicle
	Example for a vehicle with 2 left-side doors and 1 right-side door:
	2 L, 1R
(6)	This value shall be calculated ( $\pi = 3.1416$ ) and rounded off to the nearest cm <sup>3</sup> .
(7)	Specify the tolerance.
(8)	Indicate the position by the following codes:
	— rx: row number
	— R: right side of the vehicle
	— C: centre of the vehicle
	— L: left side of the vehicle
	Example for a vehicle with a first row with 2 front seating positions, 1 right, 1 left and a second row with 1 rear seating position, 1 centre:
	rl: 1R,1L r2: 1C
(9)	Indicate fuel type by the following codes:
	— P: petrol
	— B5: diesel
	— M: mixture
	— LPG: liquid petroleum gas
	— NG: natural gas
	— BM: biomethane
	— E5: petrol E5
	— E10:petrol E10
	— E85: ethanol E85
	— BD: biodiesel
	— H <sub>2</sub> : hydrogen
	— H <sub>2</sub> NG: mixture of hydrogen and natural gas
	— A: compressed air
	— O: other.

Note: 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 5 litres of petrol, shall be regarded for the test as vehicles which can only run a gaseous fuel.

- (10) L-category vehicles equipped with OBD according to Article 21 of Regulation (EU) No 168/2013.
- (11) Standard ISO 612:1978 Road vehicles dimensions of motor vehicles and towed vehicles terms and definitions.
- (12) This figure shall be rounded off to the nearest tenth of a millimetre.
- (13) The specified particulars are to be given for any proposed variants.
- (14) 'A': for a three-point belt;
  - 'B': for a lap belt;
  - 'S': for special types of belt (in this case provide specific information on the nature of these types under observation in point 6.15.7.);
  - 'Ar', 'Br' or 'Sr': for a belt incorporating an inertia reel;
  - 'Are', 'Bre' and 'Sre': for a belt equipped with an inertia reel and an energy-absorption device on at least one anchorage.
- (15) Indicate the location of the centre of the VIN/statutory plate by the following codes:
  - R. right side of the vehicle
  - C: centre of the vehicle
  - L: left side of the vehicle
  - x: horizontal distance (in mm) from the front-most axle (preceded by '-' (i.e. minus) if located in front of the front axle)
  - y: horizontal distance (in mm) from the longitudinal centre line of the vehicle
  - z: distance (in mm) from the ground
  - (r/o): parts needing to be removed or opened for access to the marking.

Example for a VIN fitted on the right side of a motorcycle steering head-pipe, 500 mm behind the front axle, 30 mm from the centre-line and 1 100 mm high:

R, x500, y30, z1100

Example for a statutory plate fitted to a quadricycle, on the right side of the vehicle, 100 mm in front of the front axle, 950 mm from the longitudinal centre line of the vehicle and 700 mm high, under the bonnet:

R, x-100, y950, z700 (r/o)

# ▶ $\underline{M1}$ (16) Rounded to the nearest whole number for dB(A). $\blacktriangleleft$

- (17) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of this Annex. For the identification of variant and versions it may be employed the matrix set out in point 2.3 of Part B of this Annex.
- (18) In case of multi-stage approval, supply this information for each stage.
- <sup>(19)</sup> Provide this information for each component and separate technical unit installed in the vehicle or system.
- (20) Provide this information for each combustion engine, electric motor and hybrid application.
- (21) Provide this information for each vehicle type.
- <sup>(22)</sup> For cycles designed to pedal indicate the maximum speed for which the electric motor provides assistance.
- (23) Axles with twinned wheels/powered:
  - F: front
  - R: rear
  - M: middle (for vehicles with sidecar)
  - F & R: front and rear

#### Examples:

- twinned wheels: F (front twinned wheels for a vehicle of subcategory L5e-A)
- powered axles: R (rear powered axle for a L3e-A1 motorcycle)
- ► M1 (24) For vehicles equipped with CVT indicate the following: 1 'gear ratio at maximum design vehicle speed'; 2 'gear ratio at maximum peak power'; 3 'gear ration at maximum peak torque'. The gear ratios shall include the gear ratio of the primary transmission ratio (if applicable) and be supplemented with an acceptable tolerance band to the satisfaction of the approval authority. For wheel hub engines without gear drive, indicate 'n/a' or '1'. ◀
- (25) For externally chargeable hybrid electric vehicles, the 'weighted, combined' values for CO<sub>2</sub>, fuel consumption and electric energy consumption shall be indicated.
- (26) Indicate the arrangement of the cylinders by following codes:
  - LI: in line
  - V: in V
  - O: opposed-cylinder engine
  - S: single-cylinder engine
  - R: rotatory piston engine.
- (27) In the case of more than one electric motor indicate the addition of all the engines.
- (28) Indicate the longitudinal distance between front axle and sidecar axle.
- (29) For compression ignition engines only.

#### ANNEX II

# Templates for the manufacturer's statements on endurance testing and vehicle structure integrity

#### 1. General requirements

- 1.1. The vehicle manufacturer shall provide, in accordance with Article 22(2) of Regulation (EU) No 168/2013, a signed statement (see model in point 1.3.), confirming that each vehicle shall operate as intended throughout its normal life, if used under normal conditions and serviced according to the manufacturer's recommendations, and that the endurance of the systems, parts and equipment critical for functional safety is ensured through appropriate testing and the use of good engineering practice.
- 1.2. The vehicle manufacturer shall provide, in accordance with point 1.1. of Annex XIX to Commission Delegated Regulation (EU) No 3/2014, a signed statement (see model in point 1.4.), confirming that all vehicles shall be constructed in a proper manner and that the vehicle type has been designed to be sufficiently robust to withstand its intended use over its lifetime.
- 1.3. Model of the manufacturer's statement on endurance testing (Annex V to Commission Delegated Regulation (EU) No 3/2014)

M		esting (Annex V to Commission Delegated U) No 3/2014)
A	duly completed version of this statement	shall be included in the information folder
The u	ndersigned: [	(full name and position)]
Cor	mpany name and address of the manufact	urer:
Nar	ne and address of the manufacturer's repr	resentative (if any):
Hereby st	ates that the vehicles:	
0.1.	Make (trade name of the manufacturer)	:
0.2.	Type (1):	
0.2.1.	Variant(s) (1):	
0.2.2.	Version(s) (1):	
0.2.3.	Commercial name(s) (if available):	
0.3.	Category, subcategory and sub-subcategory	gory of vehicle (2):
five years	of first registration, taking into accour adjustments, as described clearly and u	rmal use as intended for at least km travelled within at regular and scheduled maintenance and specific mambiguously in the instructions manual delivered
	2	rance of the systems, parts and equipment critical for ting and the use of good engineering practice.
This decla	ration has no bearing on any vehicle war	ranty.
Place:		Date:
Signature:		Name and position in the company:

1.4. Model of the manufacturer's statement on structure integrity (point 1.1. of Annex XIX to Commission Delegated Regulation (EU) No 3/2014)

Man	nufacturer's statement on structure integrity (A Regulation (EU) No		
Α	duly completed version of this statement shall be	be included in the information folder.	
The un	ndersigned: [	(full name and position)]	
C	Company name and address of the manufacturer:		
N	Name and address of the manufacturer's represen	tative (if any):	
Hereby sta	ates that the vehicles:		
0.1.	Make (trade name of the manufacturer):		
0.2.	Type (1):		
0.2.1.	Variant(s) (1):		
0.2.2.	Version(s) (1):		
0.2.3.	Commercial name(s) (if available):		
0.3.	Category, subcategory and sub-subcategory of	vehicle (²):	
intended u specific eq	constructed in a proper manner and are designe use over the vehicle's lifetime, taking into according quipment adjustments, as described clearly and with the vehicles.	ount regular and scheduled maintenance and	
component testing sha	rsigned furthermore agrees to and guarantees ts and/or parts using engineering calculations all be made available in a timely manner to on upon request in case of a recall due to a seri	s, virtual testing methods and/or structural the approval authority and the European	
	This declaration applies to all vehicles covered by the type-approval to which this statement is annexed and has no bearing on any vehicle warranty.		
Place:	Date	:	
Signature:	Name	e and position in the company:	

Explanatory notes relating to Annex II

(Footnotes and explanations not to be stated on the Manufacturer's statements)

- (¹) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I. For the identification of variant and versions it may be employed the matrix set out in point 2.2 of Part B of Annex I.
- (2) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.

#### ANNEX III

Templates for the manufacturer's certificates providing proof of compliance to the type-approval authority on access to vehicle on-board diagnostics (OBD) and to vehicle repair and maintenance information

- 1. The vehicle manufacturer shall provide, in accordance with Article 57(8) of Regulation (EU) No 168/2013 the certificates providing proof of compliance to the type-approval authority on access to vehicle OBD and vehicle repair and maintenance information which shall take the form set out in points 2. and 3.
- 1.1. The certificates shall have a reference number supplied by the manufacturer.
- 2. Manufacturer's certificate on access to vehicle OBD stage I and vehicle repair and maintenance information.
- 2.1. Template of manufacturer's certificate on access to vehicle OBD (stage I) and vehicle repair and maintenance information.

Manufacturer's certificate on access	s to vehicle	e OBD (stage	I) and	vehicle repai	r and	maintenance
	inf	ormation				

A duly completed version of this certificate shall be included in the information folder. Reference number: ..... The undersigned: [...... (full name and position)] Company name and address of the manufacturer: Name and address of the manufacturer's representative (if any) (1): Hereby certifies that: it provides access to vehicle OBD and vehicle repair and maintenance information in compliance with - Chapter XV of Regulation (EU) No 168/2013 with respect to the types of vehicle, engine and pollution-control device listed in Addendum 1 to this certificate. The following derogation is applied: carry-over systems (1). The principal website addresses, through which the relevant information may be accessed and which are hereby certified to be in compliance with the above provisions, are listed in Addendum 2 to this certificate along with the contact details of the manufacturer's representative listed in Addendum 3 to this certificate, whose signature is below. Where applicable: The manufacturer hereby also certifies that it has complied with the obligation in Article 57(8) of Regulation (EU) No 168/2013 to provide the relevant information for previous approvals of these vehicle types no later than six months after the date of type-approval. Place: ... Signature: ... Name and position in the company: ...

#### Addenda:

- 1: List of the types of vehicle, engine and pollution-control device
- Web sites addresses
- Contact details

2.1.2.

2.1.1. Template of Addendum 1 to the manufacturer's certificate on access to vehicle OBD (stage I) and repair and maintenance information.

_			
		Addendum 1	
		to	
	Manufa	cturer's certificate with reference number on access to vehicle OBD (stage I) and vehicle repair and maintenance information	
		List of the types of vehicle:	
	0.2.	Type (²):	
	0.2.1.	Variant(s) ( <sup>2</sup> ):	
	0.2.2.	Version(s) ( <sup>2</sup> ):	
	0.2.3.	Commercial name(s) (if available):	
	0.3.	Category, subcategory and sub-subcategory of vehicle (3):	
	1.	Type-approval number including extension number (if available):	
	1.1.	Type-approval issued on (date, if available):	
		List of the types of engines:	
	3.	Combustion engine/ electric motor/hybrid application (1) code:	
	3.1.	Type-approval number (if available):	
	3.2.	Type-approval issued on (date, if available):	
		List of the types of pollution-control devices:	
	0.7.	Make(s) (trade name(s) of manufacturer):	
	0.8.	Type:	
	0.8.1.	Commercial name(s) (if available):	
	0.8.2.	Type-approval number including extension number (if available):	
	0.8.3.	Type-approval issued on (date, if available):	
		of Addendum 2 to the manufacturer's certificate on access to BD (stage I) and repair and maintenance information.	
		Addendum 2	
		to	

Web site addresses referred to in this certificate

2.1.3. Template of Addendum 3 to the manufacturer's certificate on access to vehicle OBD (stage I) and repair and maintenance information.

Addendum 3
to
Manufacturer's certificate with reference number on access to vehicle OBD (stage I) and vehicle repair and maintenance information
Contact details of the manufacturer's representative referred to in this certificate

- 3. For vehicles complying with OBD stage II as referred to in Annex XII to Commission Delegated Regulation (EU) No 44/2014, the manufacturer may fill out the certificate set out in point 3.2 on a voluntary basis and add this to the information folder.
- 3.1. The certificate shall have a reference number supplied by the manufacturer.
- 3.2. Template of certificate supplementing the manufacturer's certificate on access to vehicle OBD (stage II) and repair and maintenance information.

Manufacturer's certificate on access to vehicle OBD (stage II) and vehicle repair and maintenance information		
A duly completed version of this certificat	e shall be included in the information folder.	
	Reference number:	
The undersigned: [	(full name and position)]	
Company name and address of the manufacturer:		
Name and address of the manufacturer's representa	tive (if any) (¹):	
Hereby certifies that:		
— the vehicle types listed in Addendum 1 to this certificate are in compliance with the provisions of Article 16 and point 4 of Appendix 1 to Annex XII to Commission Delegated Regulation (EU) No 44/2014 relating to the in-use performance of the OBD system under all reasonable foreseeable driving conditions.		
— the plans describing the detailed technical criteria for incrementing the numerator and denominator of each monitor in <b>Addendum 2</b> to this certificate are correct and complete for all types of vehicles to which this certificate applies.		
Place:	Date:	
Signature:	Name and position in the company:	
Addenda:		
- List of vehicle types to which this certificate ap	pplies.	

Plan(s) describing the detailed technical criteria for incrementing the numerator and denominator of each monitor as well as plan(s) for disabling numerators, denominators and general denominator.

3.2.1. Template of Addendum 1 to the manufacturer's certificate on access to vehicle OBD (stage II) and repair and maintenance information.

	Addendum 1		
	to		
Manufa	Manufacturer's certificate with reference number on access to vehicle OBD (stage II) and vehicle repair and maintenance information		
	List of the types of vehicle:		
0.2.	Type ( <sup>2</sup> ):		
0.2.1.	Variant(s) (²):		
0.2.2.	Version(s) (²):		
0.2.3.	Commercial name(s) (if available):		
0.3.	Category, subcategory and sub-subcategory of vehicle (3):		
1.	Type-approval number (if available):		
1.1.	Type-approval issued on (date, if available):		

3.2.2. Template of Addendum 2 to the manufacturer's certificate of compliance with the OBD in-use performance requirements.

Addendum 2
to
Manufacturer's certificate with reference number on access to vehicle OBD (stage II) and vehicle repair and maintenance information
Plan(s) describing the detailed technical criteria for incrementing the numerator and denominator of each monitor as well as plan(s) for disabling numerators, denominators and general denominator

Explanatory notes relating to Annex III

(Footnotes and explanations not to be stated on the Manufacturer's declaration)

- (1) Delete if not applicable.
- (²) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I. For the identification of variant and versions it may be employed the matrix set out in point 2.2 of Part B of Annex I.
- (3) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.

#### ANNEX IV

#### Templates for the certificates of conformity

#### LIST OF APPENDICES

Appendix Number	Appendix title
1	Models for the certificate of conformity
2	Information and entries to be included in the certificates of conformity issued in accordance with the template set out in Annex IV to Directive 2002/24/EC

#### 0. Objectives

The certificate of conformity enables the competent authorities of the Member States to register vehicles without requiring the applicant to supply additional technical documentation. For these purposes, the certificate of conformity has to include:

- (a) the vehicle identification number;
- (b) the exact technical characteristics of the vehicle (e.g. it is not permitted to mention any range of value in the various entries).

#### 1. General requirements

- 1.1. The vehicle manufacturer shall provide, in accordance with Article 38(1) of Regulation (EU) No 168/2013, a certificate of conformity for each vehicle in the series of the type which has been approved, which template is set out in the Appendix 1.
- 1.2. The certificate of conformity shall consist of two sections.
  - (a) Section 1 contains a statement of compliance by the manufacturer. There are different templates for section 1 according to the vehicles covered, as specified in point 2.
  - (b) Section 2 is a technical description of the main characteristics of the vehicle. The template for section 2 is common to all vehicle categories. Those entries which are not applicable to the certified vehicle can be supressed.
- 1.3. The certificate of conformity shall be no bigger than A4 paper format (210  $\times$  297 mm).
- 1.4 All information on the Certificate of Conformity shall be provided in ISO 8859 series characters (for Certificates of Conformity issued in Bulgarian Language in Cyril characters, for Certificates of Conformity issued in Greek Language in Greek characters) and Arabic numerals.
- 1.5. Without prejudice to the provisions in section 0(b), the values and units indicated in Section 2 shall be those given in the type-approval documentation of this implementing act. In the case of conformity of production checks, the values shall be verified according to the methods laid down in Annex IV to Commission Delegated Regulation (EU) No 44/2014. The tolerances allowed are those indicated in the relevant delegated acts.

- 1.6. The vehicle manufacturer shall endeavour to make available an electronic version of the certificate of conformity to the registration authority of the Member State performing the first registration of the vehicle containing the identical information as stated on the certificate of conformity of the vehicle.
- 1.7. The certificate of conformity of vehicles of category L3 capable of converting their performance levels between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 according to the procedure established in point 4. of Annex III to Commission Delegated Regulation (EU) No 44/2014 shall bear the data of the vehicle configuration at the end of the production line in the factory when finally set to one of the two possible configurations. In addition, it shall bear certain characteristics of the vehicle configuration in case it is retrofitted after first registration, which are identified as corresponding to the converted vehicle (CV), as well as entry 8.1. to clearly state that the vehicle is appropriate for converting its performance level.
- 1.8. Relevant information and entries of the certificate of conformity which are not present in the template set out in Annex IV to Directive 2002/24/EC shall be introduced respectively in the entries No 04 'Vehicle category' and 50 'Remarks' of the certificates of conformity issued according to that template, as indicated in Appendix 2.

#### 2. Special provisions

- 2.1. Model A of the certificate of conformity (complete vehicles) shall cover vehicles which can be used on the road without further approval.
- 2.2. Model B of the certificate of conformity (completed vehicles) shall cover vehicles which can also be used on the road without requiring any further approval, and which have previously undergone an additional approval stage.

This is the normal result of the multi-stage approval process (e.g. a commercial tricycle (L5e-B) built by a second-stage manufacturer on a chassis built by another vehicle manufacturer).

The additional features added during the multi-stage process shall be described briefly and the certificates of conformity obtained at the previous stages shall be annexed.

2.3. Model C of the certificate of conformity (incomplete vehicles) shall cover vehicles which need a further stage for their approval and cannot be permanently registered or used on the road (e.g. a heavy quadri-mobile for utility purposes (L7e-CU) chassis).

# 3. Paper and security printing features to prevent forgery

3.1. In accordance with Article 38(2) of Regulation (EU) No 168/2013, the certificate of conformity shall be made in such a way as to prevent any forgery. For this purpose, the paper used for the certificate of conformity shall be protected by a watermark in the form of the registered mark of the manufacturer and by coloured graphics.

- 3.2. As an alternative to the requirements set out in point 3.1., the paper of the Certificate of conformity may be not protected by a watermark in the form of the registered mark of the manufacturer. In this case, the coloured graphics shall be supplemented with at least one additional security printing feature (e.g. ultraviolet fluorescent ink, inks with viewing angle-dependent colour, inks with temperature-dependent colour, micro printing, guilloche printing, iridescent printing, laser engraving, custom holograms, variable laser images, optical variable images, physically embossed or engraved manufacturer's logo, etc.)
- 3.3. Manufacturers may provide the certificate of conformity with security printing features additional to those set out in points 3.1. and 3.2.

**▼**<u>M1</u>

**▼**<u>B</u>

(Place) (Date) ...

# Appendix 1

# Models for the certificate of conformity

CERTIFICATE OF CONFORMITY ACCOMPANYING EACH VEHICLE IN THE SERIES OF THE TYPE WHICH HAS BEEN APPROVED

MODEL A — Section 1

Maximum format: A4 (210 × 297 mm) or folded to A4 format

COMPLETE VEHICLES

[Year] <sup>(0)(1)</sup>	[Sequential number] <sup>(0)(1)</sup>
--------------------------	---------------------------------------

		[Year] <sup>(0)(1)</sup>	[Sequential number] <sup>(0)(1)</sup>	
		EU CERTIFIC	CATE OF CONFORMITY	
The u	ndersigne	ed: [	(full name and po	osition)]
hereby	y certifies	s that the following	g complete vehicle:	
0.1.	Make (	trade name of the	manufacturer):	
0.2.	Type <sup>(5)</sup> :	:	(CV* Type <sup>(5)(3i)</sup> ):	
0.2.1.	Variant <sup>6</sup>	(5).	(CV* Variant <sup>(5)(3i)</sup> ):	
0.2.2.	Version	1 <sup>(5)</sup>	(CV* Version <sup>(5)(3i)</sup> ):	
0.2.3.			lable): (CV* Commercial name (	
0.3.	Categor Categor	ry, subcategory and ry, subcategory and	I sub-subcategory of vehicle <sup>(6)</sup> :	(CV*
0.4.	Compar	ny name and addre	ess of manufacturer:	
0.4.2.	Name (if any)	and address o	f manufacturer's authorised repres	entative
0.5.1.	Location	n of the manufactu	rrer's statutory plate(s) <sup>(7)(8)</sup> :	
0.5.2.	Method	of attachment of	the manufacturer's statutory plate(s):	
0.6.	Location	n of the vehicle id	entification number <sup>(7)</sup> :	
1.	Vehicle	identification num	ber:	
conforms in all respects to the type described in EU type-approval ( type-approval number including extension number) (CV* type-approval number including extension number) <sup>(3i)</sup> issued on ( date of issue) (CV* date of issue)			type- number date	
can be	e perman sing metr	nently registered in ric/imperial <sup>(1)</sup> units	Member States having right/left <sup>(1)</sup> -hand for the speedometer <sup>(e)</sup> .	1 traffic

Signature: ...

NB:

- If this model is used for vehicle type-approval for a national small series, pursuant to Article 42 of Regulation (EU) No 168/2013, it shall display in its title, instead of 'COMPLETE VEHICLES' the phrase: 'FOR COMPLETE VEHICLES TYPE-APPROVED IN SMALL SERIES' and in close proximity the year and the sequential number of production in accordance with Article 38(8) of Regulation (EU) No 168/2013.

**▼**<u>M1</u>

**▼**<u>B</u>

# CERTIFICATE OF CONFORMITY ACCOMPANYING EACH VEHICLE IN THE SERIES OF THE TYPE WHICH HAS BEEN APPROVED

MODEL B — Section 1

Maximum format: A4 (210 × 297 mm) or folded to A4 format

#### COMPLETED VEHICLES

[Year] <sup>(0)(1)</sup>	[Sequential number] <sup>(0)(1)</sup>
--------------------------	---------------------------------------

EU CERTIFICATE OF CONFORMITY				
The undersigned: [ (full name and position)]				
hereby	hereby certifies that the following completed vehicle:			
0.1.	Make (trade name of the manufacturer	):		
0.2.	Type <sup>(5)</sup> : (CV* T	Type <sup>(5)(3i)</sup> ):		
0.2.1.	Variant <sup>(5)</sup> : (CV* V	Variant <sup>(5)(3i)</sup> ):		
0.2.2.	Version <sup>(5)</sup> : (CV* V	Version <sup>(5)(3i)</sup> ):		
0.2.3.	Commercial name (if available):available)	(CV* Commercial name (if		
0.3.	Category, subcategory and sub-subcate Category, subcategory and sub-subcate	gory of vehicle <sup>(6)</sup> : (CV* gory of vehicle <sup>(6)(3i)</sup> )		
0.4.	Company name and address of manufa	acturer:		
0.4.2.	Name and address of manufactu (if any) <sup>(3)</sup> :	urer's authorised representative		
0.5.1.	Location of the manufacturer's statutor	y plate(s) <sup>(7)(8)</sup> :		
0.5.2.	Method of attachment of the manufact	urer's statutory plate(s):		
0.6.	Location of the vehicle identification n	number <sup>(7)</sup> :		
1.	Vehicle identification number:			
has been completed and altered as follows: and				
conforms in all respects to the type described in EU type-approval (				
can be permanently registered in Member States having right/left $^{(1)}$ -hand traffic and using metric/imperial $^{(1)}$ units for the speedometer $^{(e)}$ .				
(Place)	) (Date)	Signature:		
Attachment: Certificates of conformity delivered at previous stages.				

NB:

- If this model is used for vehicle type-approval for a national small series, pursuant to Article 42 of Regulation (EU) No 168/2013, it shall display in its title, instead of 'COMPLETED VEHICLES' the phrase: 'FOR COMPLETED VEHICLES TYPE-APPROVED IN SMALL SERIES' and in close proximity the year and the sequential number of production in accordance with Article 38(8) of Regulation (EU) No 168/2013.

**▼**<u>M1</u>

**▼** <u>B</u>

# CERTIFICATE OF CONFORMITY ACCOMPANYING EACH VEHICLE IN THE SERIES OF THE TYPE WHICH HAS BEEN APPROVED

MODEL C — Section 1

Maximum format: A4 (210 × 297 mm) or folded to A4 format

#### INCOMPLETE VEHICLES

#### EU CERTIFICATE OF CONFORMITY

The undersigned: [ (full name and position)]		
hereby certifies that the following incomplete vehicle:		
0.1. Make (trade name of the manufacturer):		
0.2. Type <sup>(5)</sup> : (CV* Type <sup>(5)(3i)</sup> ):		
0.2.1. Variant <sup>(5)</sup> : (CV* Variant <sup>(5)(3i)</sup> ):		
0.2.2. Version <sup>(5)</sup> : (CV* Version <sup>(5)(3i)</sup> ):		
0.2.3. Commercial name (if available): (CV* Commercial name (if available) <sup>(3i)</sup> ):		
0.3. Category, subcategory and sub-subcategory of vehicle $^{(6)}$ :		
0.4. Company name and address of manufacturer:		
0.4.2. Name and address of manufacturer's authorised representative (if any) <sup>(3)</sup> :		
0.5.1. Location of the manufacturer's statutory plate <sup>(7)(8)</sup> :		
0.5.2. Method of attachment of the manufacturer's statutory plate(s):		
0.6. Location of the vehicle identification number <sup>(7)</sup> :		
1. Vehicle identification number:		
conforms in all respects to the type described in EU type-approval (type-approval number including extension number) (CV*type-approval number including extension number) (Si) issued on (		
cannot be permanently registered without further approvals.		
(Place) (Date) Signature:		

Attachment: Certificates of conformity delivered at previous stages.

# **▼**<u>M1</u>

Section 2<sup>(o)</sup>

**▼**<u>B</u>

# VEHICLE CATEGORY L

# (COMPLETE, COMPLETED AND INCOMPLETE VEHICLES)

General construction characteristics			
1.3.	Number of axles: and wheels:		
1.3.1.	Axles with twinned wheels <sup>(2)(3)</sup> :		
1.3.2.	Powered axles <sup>(2)</sup> :		
6.2.4.	Advanced braking system: ABS / CBS / Both ABS and CBS / None (1)(3):		
	Main dimensions		
2.2.1.	Length: mm		
2.2.2.	Width: mm		
2.2.3.	Height: mm		
2.2.4.	Wheelbase: mm		
2.2.4.1.	Wheelbase sidecar <sup>(3a)(3k)</sup> : mm		
2.2.5.	Track width <sup>(3)</sup>		
2.2.5.1.	Track width front <sup>(3c)</sup> : mm.		
2.2.5.2.	Track width rear <sup>(3c)</sup> : mm.		
2.2.5.3.	Track width sidecar <sup>(3k)</sup> : mm.		
2.2.10.6.	Ground clearance between the axles <sup>(3d)</sup> : mm		
2.2.15.	Wheelbase to ground clearance ratio <sup>(3f)</sup> : [no unit]		
2.2.17.	Seat height <sup>(3d)</sup> : mm		
Masses			
2.1.1.	Mass in running order: kg		
2.1.2.	Actual mass: kg		
2.1.3.	Technically permissible maximum laden mass: kg		
2.1.3.1.	Technically permissible maximum mass on front axle: kg		
2.1.3.2.	Technically permissible maximum mass on rear axle: kg		
2.1.3.3.	Technically permissible maximum mass on sidecar $axle^{(3k)}\!\!:\! \dots\!$		

2.1.7.	Technically permissible maximum towable mass $^{(3)}$ : Braked:kg Unbraked:kg
2.1.7.1.	Technically permissible maximum laden mass of the combination $^{(3)}$ : kg
2.1.7.2.	Technically permissible maximum mass at the coupling point $^{\!(3)}\!\!:$ kg
Powertra	ain
3.1.1.1.	Manufacturer <sup>(3n)</sup> :
3.1.1.2.	Engine code (as marked on the engine or other means of identification) <sup>(3n)</sup> :
3.2.1.2.	Working principle of the combustion engine: internal combustion engine (ICE)/positive ignition/compression ignition/external combustion engine (ECE)/turbine/compressed air <sup>(1)(3n)</sup> :
3.2.1.4.1.	Number of cylinders <sup>(3n)</sup> :
3.2.1.4.2.	Arrangement of cylinders <sup>(3n)(f)</sup> :
3.2.1.5.	Engine capacity: cm <sup>3(3n)</sup>
1.9.	Maximum net power $^{(3n)}$ : $kW$ (at $min^{-1})^{(3n)}$ (CV*: $kW$ (at $kW$
1.10.	Ratio maximum net power/mass of the vehicle in running order $^{(3n)}$ : kW/kg (CV $^{\ast}$ : kW/kg) $^{((3n)(3i)}$
3.2.3.1.	Fuel type:(3n)(g)
3.2.3.2.	Vehicle fuel combination: mono-fuel/bi-fuel/flex-fuel <sup>(1)(3n)</sup>
3.2.3.2.1.	Maximum amount of bio-fuel acceptable in $fuel^{(3n)}\!\!:\%$ by volume
3.1.2.1.	Manufacturer <sup>(30)</sup> :
3.1.2.2.	Electric motor code (as marked on the engine or other means of identification) <sup>(30)</sup> :
3.3.3.4.	15/30 <sup>(1)</sup> minutes power <sup>(3o)(r)</sup> :
3.1.3.1.	Manufacturer <sup>(3p)</sup> :
3.1.3.2.	Application code (as marked on the engine or other means of identification) <sup>(3p)</sup> :
3.3.1.	Electric vehicle configuration: pure electric/hybrid electric/manpower — electric $^{(1)((3\circ)(3p))}$ :
3.3.5.2.	Category of hybrid electric vehicle: off-vehicle charging $^{(1)(3p)}$
392	Maximum assistance factor <sup>(3q)</sup> .

<b>▼</b> <u>B</u>					
	Maximu	m speed			
	1.8.	Maximum speed	of vehicle <sup>(9)</sup> :	km/h (CV*: k	m/h) <sup>((9)(3i)</sup>
	3.9.3.	Maximum vehicance <sup>(3q)</sup> :	ele speed for whi km/h	ch the electric motor	gives assist-
	Drive-tr	ain and control			
	3.5.3.9.	Transmission (ty	rpe) <sup>(h)</sup> :		
	3.5.4.	Gear ratios <sup>(t)</sup> : 1	2	. 3 4 5	6
	3.5.4.1.	Final drive ratio	:		
	3.5.4.2.	Overall gear rati	o in highest gear	3d).	
	Installat	ion of tyres			
	6.18.1.1.			Axle 2	
	Bodywo	rk			
	6.20.2.1.	Door configurati	on and number of	f doors <sup>(3g)</sup> (i) (j):	
	6.16.1.	Number of seati	ng positions:		
	6.16.1.1.	Location and arr	rangement <sup>(3g)(k)</sup> :		
	Coupling devices				
	7.2.8.	Type-approval n	umber of coupling	g-device <sup>(3)</sup> :	
Environmental performance					
<b>▼</b> <u>M2</u>	4.0.1.	Environmental s	tep: Euro (3/4/5/5	+) (1)	
▼ <u>M1</u>					
	4.0.6.	Sound level mes	asured according to	o(m).	
			_		(3i)
	4.0.6.1.	Stationary:speed:	dB(A) (C\ min <sup>-1</sup>	V*:dB(A) (CV*:	min <sup>-1</sup> ) <sup>(3i)</sup>
	4.0.6.2.	Drive-by:	dB(A)	) (CV*:	dB(A)) <sup>(3i)</sup>
	4.0.6.3.	Limit value for	L <sub>urban</sub> <sup>(3r)</sup> :	dB(A) (CV*:	dB(A)) <sup>(3i)</sup>
<b>▼</b> <u>B</u>	3.2.15.	Exhaust emission	ns measured accor	rding to <sup>(m)(o)</sup>	
▼ <u>M1</u>	3.2.15.1. Type I test: tailpipe emissions after cold start, including the deteration factor, if applicable:			g the deterio-	
		CO:	mg/km	(CV*:	mg/km) <sup>(3i)</sup>
		THC:	mg/km	(CV*:	mg/km) <sup>(3i)</sup>
		NMHC:	mg/km (3)	(CV*:	mg/km) <sup>(3i)</sup>
		NOx:	mg/km	(CV*:	mg/km) <sup>(3i)</sup>
		THC+NOx:	mg/km <sup>(3)</sup>	(CV*:	

 $mg/km^{(3)}$   $(CV*:..... mg/km)^{(3i)}$ 

PM:

3.2.15.2. Type II test: tailpipe emissions at (increased) idle and free acceleration:

HC: ... ppm  $(CV^*$ : ... ppm) $^{(3i)}$  at normal idling speed and: ... ppm  $(CV^*$ : ... ppm) $^{(3i)}$  at high idle speed

CO: ...% vol.  $(CV^*$ : ... % vol.) $^{(3i)}$  at normal idling speed and: ...% vol.  $(CV^*$ : ... % vol.) $^{(3i)}$  at high idle speed

3.2.15.3. Smoke corrected absorption coefficient:  $m^{-1(3e)} (CV^*: \dots m^{-1})^{(3e)(3i)}$ 

#### **▼** M1

# Energy efficiency<sup>(m)(o)</sup>:

4.0.2. Fuel consumption<sup>(3)(q)</sup>: 1 or kg/100 km  $(CV^*:... 1 \text{ or kg/100 km})^{(3)(q)(3i)}$ 

4.0.3.  $CO_2 \text{ emissions}^{(3)(q)(n)}$ : g/km  $(CV^*:... g/km)^{(3)(q)(3i)}$ 

4.0.4. Energy consumption<sup>(3)(q)</sup>: Wh/km  $(CV^*:... Wh/km)^{(3)(q)(3i)}$ 

4.0.5. Electric range<sup>(3)</sup>: km  $(CV^*:... km)^{(3)(3i)}$ 

#### **▼**B

#### Conversion of the performance of the vehicle<sup>(3i)</sup>:

8.1. Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: yes/no<sup>(1)(3i)</sup> (\*)

# Additional information<sup>(3)</sup>:

- 9.1. Remarks<sup>(3)</sup>:
- 9.2. Exemptions<sup>(3)</sup>:

<sup>(\*)</sup> CV means converted vehicle, and this entry states the information of the temporarily and reversibly modified configuration of the vehicle once it has been converted after first registration according to the manufacturer's specifications in order to re-register it nationally (e.g. first registered L3e-A2 motorcycle converted to L3e-A3 motorcycle). (3i)

#### Appendix 2

Information and entries to be included in the certificates of conformity issued in accordance with the template set out in Annex IV to Directive  $2002/24/\mathrm{EC}$ 

I) Information to be included in entry No 04

#### ▼<u>M1</u>

0.3. Category, subcategory and sub-subcategory of vehicle (6) (u): ...

#### **▼**<u>B</u>

II) Entries to be included in entry No 50

#### General construction characteristics

6.2.4. Advanced braking system: ABS / CBS / Both ABS and CBS / None (1) (3):

#### Masses

2.1.2. Actual mass: .....kg

#### **Powertrain**

- 3.9.2. Maximum assistance factor (<sup>3q</sup>):

#### Maximum speed

#### **▼**M1

#### Energy efficiency:

4.0.2.	Fuel consumption <sup>(3)(q)</sup> :	1 or kg/100 km	$(CV^*: 1 \text{ or kg/}100 \text{ km})^{(3)(q)(3i)}$
4.0.3.	CO <sub>2</sub> emissions <sup>(3)(q)(n)</sup> :	g/km	$(CV^*: g/km)^{(3)(q)(3i)}$
4.0.4.	Energy consumption <sup>(3)(q)</sup> :	Wh/km	$(CV^*:\ Wh/km)^{(3)(q)(3i)}$
4.0.5.	Electric range <sup>(3)</sup> :	km	$(CV^*: \text{ km})^{(3)(3i)}$

# **▼**B

#### Conversion of the performance of the vehicle (3i):

8.1. Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: yes/no (¹) (³i)

Explanatory notes relating to Annex  $\mathit{IV}$ 

(Footnotes and explanations not to be stated on the certificate of conformity) with the exception of footnote (\*))

- (0) Applicable only for vehicle type-approval for a national small series, pursuant to Article 42 of Regulation (EU) No 168/2013.
- (MS) Indicate the Member State.
- Delete where not applicable (no deletion required when more than one entry is applicable).

- Axles with twinned wheels/powered: F: front R: rear M: middle (for vehicles with sidecar) F & R: front and rear Examples: — twinned wheels: F (front twinned wheels for a vehicle of subcategory L5e-A) — powered axles: R (rear powered axle for a L3e-A1 motorcycle) Suppress this entry of the certificate of conformity if not applicable to the  $(^{3a})$ Indicate the longitudinal distance between front axle and sidecar applicable only for subcategories L2e-U, L5e-B, L6e-BU, L7eapplicable only for L2e, L4e, L5e, L6e, L7e or any other type of vehicle if equipped with twinned wheels applicable only for subcategory L3e-AxE endurance motorcycles and L3e-AxT trial motorcycles applicable only for vehicles with compression engine applicable only for subcategory L7e-B  $(^{3g})$ applicable only for vehicle categories L2e, L5e, L6e and L7e  $(^{3h})$ applicable only for vehicle categories L1e, L2e and L6e Information of the (L3e/L4e)-A2/(L3e/L4e)-A3 converted vehicle (CV) applicable only for vehicles laid down in point 1.7 of this Annex  $(^{3k})$ applicable only for vehicle category L4e applicable only for vehicles fitted with combustion engine applicable only for vehicles fitted with electric motor  $(^{3p})$ applicable only for vehicles fitted with hybrid application applicable only for cycles designed to pedal ► M1 (<sup>3r</sup>) Only applicable for vehicle category L3e ◀
- (5) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to the vehicle as set out in point 2.3 of Part B of Annex I.
- (6) Classification in accordance with categories and subcategories in Article 4 of and Annex I to Regulation (EU) No 168/2013. The coding should be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motorcycle.

- R: rotatory piston engine.

<b>▼</b> <u>B</u>	(7)	Indicate the location of the centre of the VIN/statutory plate by the following codes:
		— R. right side of the vehicle
		— C: centre of the vehicle
		— L: left side of the vehicle
		— x: horizontal distance (in mm) from the front-most axle (preceded by '-' (i.e. minus) if located in front of the front axle)
		- y: horizontal distance (in mm) from the longitudinal centre line of the vehicle
		— z: distance (in mm) from the ground
		— (r/o): parts needing to be removed or opened for access to the marking.
		Example for a VIN fitted on the right side of a motorcycle steering head-pipe, 500 mm behind the front axle, 30 mm from the centre-line and 1 100 mm high:
		R, x500, y30, z1100
		Example for a statutory plate fitted to a quadricycle, on the right side of the vehicle, 100 mm in front of the front axle, 950 mm from the longitudinal centre line of the vehicle and 700 mm high, under the bonnet:
		R, x-100, y950, z700 (r/o)
	(8)	In case of multi-stage approval, supply this information for each stage.
▼ <u>M1</u>	(9)	Indicate the following value according to the category of the vehicle:
		— for (sub) categories: L1e, L2e, L6e, L7e-B1, L7e-C: the measured maximum speed of the vehicle;
		<ul> <li>for (sub) categories L3e, L4e, L5e, L7e-A and L7e-B2: the maximum design vehicle speed;</li> </ul>
		<ul> <li>for cycles designed to pedal (L1e): suppress this entry of the certificate of conformity.</li> </ul>
▼B		
_	(e)	This statement does not restrict the right of any Member State to require technical adaptations in order to allow the registration of a vehicle in a Member State other than that for which it was intended and where traffic drives on the opposite side of the road.
	(f)	Indicate the arrangement of the cylinders by following codes:
		— LI: in line
		— V: in V
		— O: opposed-cylinder engine
		— S: single-cylinder engine

(<sup>g</sup>)

(h)

 $(^{i})$ 

(<sup>j</sup>)

(k)

Indicate fuel type by the following codes:		
P: petrol		
— B5: diesel		
M: mixture		
- LPG: liquid petroleum gas		
NG: natural gas		
— BM: biomethane		
— E5: petrol E5		
— E10: petrol E10		
— E85: ethanol E85		
— BD: biodiesel		
— H <sub>2</sub> : hydrogen		
— H <sub>2</sub> NG: mixture of hydrogen and natural gas		
— A: compressed air		
— O: other.		
Indicate the transmission type by the following codes:		
— M: manual		
— A: automatic		
— C: CVT.		
— O: other		
— W: wheel-hub engine		
For vehicles with bodywork.		
Indicate the configuration by following codes:		
- R: right side of the vehicle		
- L: left side of the vehicle		
— F: front side of the vehicle		
- RE: rear side of the vehicle		
Example for a vehicle with 2 left-side doors and 1 right door:		
2 L, 1R		
Indicate the position by the following codes:		
— rx: row number		
- R: right side of the vehicle		
— C: centre of the vehicle		
— L: left side of the vehicle		

Example for a vehicle with a first row with 2 front seating positions, 1 right, 1 left and a second row with 1 rear seating positions, 1 centre:

r1: 1R,1L r2: 1C

(m) Number of the Commission Delegated Regulation and latest amending Commission Delegated Regulation applicable to the type-approval. In the case of a Commission Delegated Regulation with two or more implementation stages; indicate also the implementation stage and/or code. Alternatively indicate the number of the applicable UNECE Regulation.

#### **▼**<u>M1</u>

(°) Round the values to the nearest whole number for dB(A), Wh/ km, mg/ km, g/km, ppm, mm, kg, km and km/ h; to the nearest tenth for kW, 1/ 100 km, kg/ 100 km, m³/ 100 km and for % vol; and to the nearest hundredth for kW/ kg and for m⁻¹.

#### **▼**B

- (q) For externally chargeable hybrid electric vehicles, the 'weighted, combined' values for CO<sub>2</sub>, fuel consumption and electric energy consumption shall be indicated.
- (r) In the case of more than one electric motor indicate the addition of all the engines.
- (s) Indicate: tyre size designation, minimum load-capacity index, minimum-speed category symbol, tyre pressure(s) as recommended by the vehicle manufacturer (kPa) and rim size.
- (b) For vehicles equipped with CVT indicate the following: 1 'gear ratio at maximum design vehicle speed' 2 'gear ratio at maximum peak power'; 3: 'gear ration at maximum peak torque'. The gear ratios shall include the gear ratio of the primary transmission ratio (if applicable) and be supplemented with an acceptable tolerance band to the satisfaction of the approval authority. For wheel hub engines without gear drive indicate 'n/a' or '1'.

#### **▼**M1

(u) The information contained in this entry shall be stated in entry No 04. 'Vehicle category' of the certificates of conformity issued in accordance with the template set out in Annex IV to Directive 2002/24/EC.

#### ANNEX V

#### Models for the statutory plate and EU type-approval mark

#### LIST OF APPENDICES

Appendix Number	Appendix title		
1	Examples of the manufacturer's data plate		
2	Examples of EU separate technical unit or component type-approval mark		

#### 1. General requirements for vehicle marking

1.1. All vehicles shall be provided with the plate described in this section in conformity with Article 39(1) of Regulation (EU) No 168/2013. The plate shall be attached by the vehicle manufacturer.

#### 1.2. Characters

- 1.2.1. Alphanumeric characters (roman letters or Arabic numerals) shall be used for the markings in points 2.1.1.1. to 2.1.2., 3.2.2. to 3.2.5. and 4.2.1.1. to 4.2.1.9. However, markings in section 3. shall use capital roman letters (upper case).
- 1.2.2. In addition, the manufacturer's name or trade name and the vehicle type designation may include the following symbols/characters: '\*' (the asterisk symbol), '&' (the and mark), '-' (hyphen or minus mark) and the ''' (the prime or apostrophe mark). The stationary sound level may include the character '-'.
- 1.3. Minimum height of letters and figures.
- 1.3.1. Characters marked directly on the chassis, frame or similar structure of the vehicle shall have a minimum height of 4.0 mm.
- 1.3.2. Characters marked on the statutory plate shall have a minimum height of 2,0 mm.

#### 2. Statutory plate

- 2.1. A statutory plate, using the model set out in Appendix 1 shall be firmly attached in a conspicuous and readily accessible position to part of the vehicle which is unlikely to be replaced during normal use, regular maintenance or repair (e.g. due to accident damage).
- 2.1.1. The information on the plate shall be clearly legible, indelible and shall contain the following information in the order given below and on the same line, if possible:
- 2.1.1.1. The name of the manufacturer or the trade name;
- 2.1.1.2. Vehicle category including the subcategory and the sub-subcategory<sup>(1)</sup>;
- 2.1.1.3. The EU type-approval number in accordance with point 3 of Annex VII to this Regulation;

- 2.1.1.4. The vehicle identification number (VIN); consisting of a structured combination of characters in accordance with the requirements set out in section 3. of this Annex;
- 2.1.1.5. The stationary sound level in the following format: '... dB(A) ... min<sup>-1</sup>' (in case of vehicles not being subject to the stationary sound level test, the information shall be displayed as '- - dB(A) - - min<sup>-1</sup>');
- 2.1.1.6. Engine power in the following format: '... kW' (this entry shall be omitted for vehicles with no restrictions on maximum engine power); .maximum vehicle design speed in the following format: '... km/h' (this entry shall be omitted for vehicles with no restrictions on maximum speed); and technically permissible maximum laden mass in the following format: 'max ... kg'. Each entry separated by one or more spaces.
- 2.1.2. The manufacturer may give additional information below or to the side of the prescribed statutory plate, outside a clearly marked rectangle which shall enclose only the information prescribed in points 2.1.1.1. to 2.1.1.8. (see examples in Appendix 1)

#### 3. Requirements for the VIN

The VIN shall meet the following requirements:

- 3.1. General requirements
- 3.1.1. A VIN shall be marked on each vehicle.
- 3.1.2. The VIN shall be unique and unequivocally attributed to a particular vehicle.
- 3.1.3. The VIN shall be marked on the statutory plate, as well as on the chassis, frame or a similar structure of the vehicle when the vehicle leaves the production line.
- 3.1.4. It shall be hammered, punched, etched or laser-engraved directly onto an easily accessible part on the right side of the vehicle in a way which avoids obliteration, alteration and removal
- 3.1.5. The manufacturer shall ensure the traceability of the vehicle by means of the VIN over a period of 30 years.

# **▼** M1

3.1.6. The existence of measures taken by the manufacturer to ensure the traceability of the vehicle referred to in point 3.1.5. needs not be checked at the time of the type-approval.

#### **▼**B

- 3.2. Composition of the VIN
- 3.2.1. The VIN shall consist of three sections:
  - (a) the world manufacturer identifier (WMI);
  - (b) the vehicle descriptor section (VDS);
  - (c) the vehicle indicator section (VIS).
- 3.2.2. The WMI shall consist of a code assigned to the vehicle manufacturer to enable that person to be identified.

#### **▼**B

- 3.2.2.1. The code shall comprise three alphanumeric characters which shall be assigned by the competent authority in the country where the manufacturer has his principal place of business.
- 3.2.2.2. The competent authority shall act in agreement with the international organisation referred to in Standard ISO 3780: 2009 on 'Road vehicles World manufacturer identifier (WMI) code'.
- 3.2.2.3. Where the manufacturer's global production is less than 150 vehicles per annum, the third character shall always be '9'. In order to identify such manufacturers, the competent authority referred to in point 3.2.2.2. shall assign the third, the fourth and the fifth character of the VIS.
- 3.2.3. The VDS shall consist of six alphanumeric characters which shall serve to indicate the general characteristics of the vehicle. Where the manufacturer does not use one or more of the six characters, the unused spaces shall be filled in with alphanumeric characters at the manufacturer's discretion in order that the total number of characters required shall be 6.
- 3.2.4. The VIS shall consist of eight alphanumeric characters of which the last four shall consist of digits only.

It shall provide, in conjunction with the WMI and the VDS, clear identification of a particular vehicle. Any unused space shall be filled in with the digit '0' in order that the total number of characters required shall be 8.

- 3.2.5. The VDS and the VIS shall be in accordance with the requirements set out in the Standard ISO 3779: 2009 on 'Road vehicles Vehicle identification number (VIN) Content and structure'.
- 3.2.6. There shall be no space between the characters.
- 3.2.7. The use of the letters 'I', 'O' or 'Q' shall not be permitted.

#### **▼**M1

3.2.8. The vehicle identification number shall, if possible, be presented on a single line. When the VIN is marked on two lines, the beginning and the end of the VIN shall be limited by one symbol at the choice of the manufacturer which should neither be a Roman capital letter nor an Arabic numeral.

#### **▼**<u>B</u>

- 4. Marking requirements for a multi-stage approval
- 4.1. Base vehicle identification number

The VIN of the base vehicle conforming to the requirements set out in section 3. Of this Annex shall be retained during all subsequent stages of type-approval to ensure the 'traceability' of the process.

- 4.2. Additional statutory plate.
- 4.2.1. At the second and subsequent stages, in addition to the statutory plate prescribed in section 2., each manufacturer shall affix to the vehicle an additional plate, based on the model set out in Appendix 1 to this Annex. This plate shall be firmly attached, in a conspicuous and readily accessible position to a part which is not subject to replacement during normal use, regular maintenance or repair. It shall show clearly and indelibly the following information in the order listed:

- 4.2.1.1. Name of the manufacturer,
- 4.2.1.2. The EU type-approval number in accordance with point 3 of Annex VII to this Regulation,
- 4.2.1.3. Vehicle category including the subcategory and the sub-subcategory<sup>(1)</sup>; and the stage of approval (in case of base vehicles, this first-stage identification shall be omitted; in the case of subsequent stages, the information shall indicate the stage: e.g. 'STAGE 3' for the third stage). Each entry separated by one or more spaces,
- 4.2.1.4. VIN,
- 4.2.1.5. The stationary sound level in the following format: '... dB(A) ...  $min^{-1}$ ' (in case of vehicles exempt from the stationary sound level test, the information shall be displayed as '- - dB(A) - -  $min^{-1}$ ')<sup>(2)</sup>,
- 4.2.1.6. Engine power in the following format: '... kW' (this entry shall be omitted for vehicles with no restrictions on maximum engine power)<sup>(2)</sup>; maximum vehicle design speed in the following format: '... km/h' (this entry shall be omitted for vehicles with no restrictions on maximum speed)<sup>(2)</sup>; and maximum permissible laden mass of the vehicle<sup>(2)</sup>. Each entry separated by one or more spaces.
- 5. Marking requirements for components or separate technical units
- 5.1. Each separate technical unit or component, whether or not part of a system, which has been EU type-approved and manufactured in conformity with the approved type shall be marked with an EU type-approval mark in conformity with Article 39(2) of Regulation (EU) No 168/2013.
- 5.2. The EU type-approval mark for a separate technical unit or component shall consist of:
- 5.2.1. A rectangle surrounding the lower-case letter 'e' followed by the distinguishing number (as set out in point 2.1 of Annex VII) of the Member State which has granted the EU type approval for the separate technical unit or component.
- 5.2.2. In the vicinity of the rectangle, the 'Sequential number for type-approval certificates' contained in section 4 of the EU type-approval number as set out in point 2.4. of Annex VII. In addition, it shall be indicated the alphanumerical character as set out in Table-1 of Annex VII to clearly identify the type of component or separate technical unit.
- 5.2.3. The EU separate technical unit or component type-approval mark shall be affixed to the separate technical unit or component in a way which is indelible (e.g. stamped, etched, laser-engraved, self-destructing adhesive label), clearly legible and visible in the place at which it is to be fitted to the vehicle without the need to remove any parts with the use of tools.
- 5.2.4. Examples of the EU type-approval mark for a separate technical unit or component are shown in Appendix 2 to this Annex. The dimensions of 'a' shall be ≥ 3 mm.
- 5.3. In addition, the make, trade name or trade mark shall be marked in the vicinity of the EU type-approval mark.

#### Appendix 1

# Examples of the manufacturer's data plate

1. Example for a moped:

BIANCA SCOOTER LTD.

L1e-B

e6\*168/2013\*01223

5DRH123UPAX000001

90 dB(A) — 3 750 min<sup>-1</sup>

4 kW 45 km/h max 190 kg

2. Example for a motorcycle of subcategory A2 with electric propulsion:

LOUIS' ELECTRIC MOTORCYCLE

L3e-A2

e12\*168/2013\*10920

PC9JZCTMYCVWS0002

- - - dB(A) — - - - min<sup>-1</sup>

35 kW max 380 kg

3. Example for a passenger tricycle:

F.M. & U.Y.

L5e-A

e4\*168/2013\*30069

1FY1HAZ433K849622

93 dB(A) — 4 750 min<sup>-1</sup>

max 935 kg

4. Example for a multi-stage (stage 2) heavy quadri-mobile for carriage of goods:

FOURGON-MOTORS S.A.R.L

L7e-CU STAGE 2

e50\*168/2013\*25089

VTFXXXXXXCL780002

101 dB(A) — 4 100 min<sup>-1</sup>

15 kW 78 km/h max 1 460 kg

# ▼<u>M1</u> ▼<u>C1</u>

5. Example for a L3e-A3 motorcycle with additional information for the converted vehicle (CV), a L3e-A2 motorcycle, outside the clearly marked rectangle. In this case for the purpose of a temporary and reversible manufacturer's authorised modification to the first registered L3e-A3 motorcycle in order to register it nationally after its conversion as a reduced-power L3e-A2 configuration (e.g. for vehicle operators with A2 driving licence):

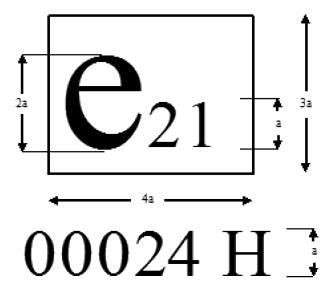
# MOTORUDOLPH L3e-A3 e4\*168/2013\*2691 JRM00DBP008002211 84 dB(A) — 4 250 min<sup>-1</sup> max 352 kg L3e-A2 e4\*168/2013\*2692 83 dB(A) — 3 750 min<sup>-1</sup> 35 kW

#### Appendix 2

Examples of EU separate technical unit or component type-approval mark

#### Figure 1

Example of a EU separate technical unit or component type-approval mark for an exhaust device (pollution-control device and noise-abatement device)

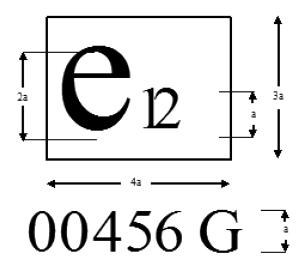


Explanatory note relating to figure 1

The above EU type-approval mark was issued by Portugal under number 00024 for an exhaust device (pollution-control device and noise-abatement device).

Figure 2

# Example of EU separate technical unit or component type-approval mark of a noise-abatement device

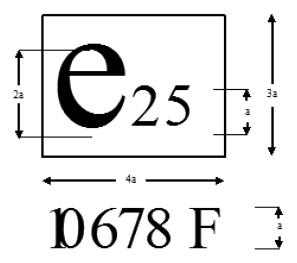


Explanatory note relating to figure 2

The above EU type-approval mark was issued by Austria under number 00456 for a noise-abatement device.

Figure 3

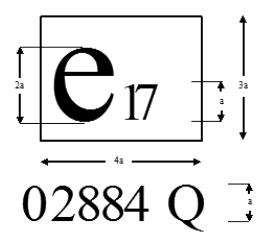
Example of EU separate technical unit or component type-approval mark of a pollution-control device



Explanatory note relating to figure 3

The above EU type-approval mark was issued by Croatia under number 10678 for a pollution-control device.

 $Figure \ 4$  Example of EU separate technical unit or component type-approval mark of a rearward visibility device

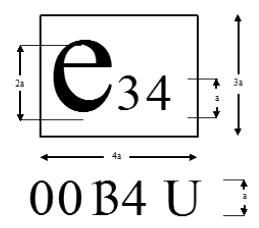


Explanatory note relating to figure 4

The above EU type-approval mark was issued by Finland under number 02884 for a rearward visibility device.

Figure 5

Example of EU separate technical unit or component type-approval mark of a trailer coupling device



Explanatory note relating to figure 5

The above EU type-approval mark was issued by Bulgaria under number 00134 for a trailer coupling device.

Explanatory notes relating to Annex V

(Footnotes and explanations not to be stated on the Manufacturer's statutory plate)

<sup>(1)</sup> Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, (e.g. 'L3e-A1E' for a low-performance Enduro motorcycle).

<sup>(2)</sup> Only where the value has changed during the current stage of approval.

#### ANNEX VI

#### Templates for the EU type-approval certificate

#### LIST OF APPENDICES

Appendix Number	Appendix title
1	Model of the EU whole-vehicle type-approval certificate for a complete vehicle type
2	Model of the EU whole-vehicle type-approval certificate for an incomplete type, a vehicle type with complete and incomplete variants, a vehicle type with completed and incomplete variants or a completed vehicle type
3	Model of the addendum to the EU type-approval certificate
4	Model of the EU type-approval certificate for a vehicle system
5	Model of the EU type-approval certificate for a separate technical unit or component
6	Model of the addendum to the EU type-approval certificate for a separate technical unit or component

#### 1. General requirements

- 1.1. Model A of the EU whole-vehicle type-approval certificate for a complete vehicle type is set out in Appendix 1.
- 1.2. Model B of the EU whole-vehicle type-approval certificate for an incomplete vehicle type, a vehicle type with complete and incomplete variants, a vehicle type with completed and incomplete variants or a completed vehicle type is set out in Appendix 2.
- 1.3. The list of applicable requirements or acts to which the type of vehicle complies and which are appended to the EU whole-vehicle type-approval certificate when the manufacturer chooses the single-step type-approval procedure according to Article 30(6) of Regulation (EU) No 168/2013 is set out in Appendix 3.
- 1.4. Model C of the EU type-approval certificate for a vehicle system is set out in Appendix 4.
- 1.5. Model D of the EU type-approval certificate for a separate technical unit or component is set out in Appendix 5.
- 1.5.1. The addendum to the separate technical unit or component type-approval certificate is set out in Appendix 6.

When a component/separate technical unit has any restrictions on use, those restrictions shall be verified at the time of vehicle type-approval and indicated in this addendum.

This addendum also identifies the separate technical units and components which can be EU type-approved and under which conditions.

1.6. The type-approval certificate shall be no bigger than A4 paper format (210  $\times$  297 mm) or a folder of maximum A4 format.

#### Appendix 1

# Model of the EU whole-vehicle type-approval certificate for a complete vehicle type

## EU type-approval certificate

#### MODEL A

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

Format: A4 (210 × 297 mm)

## EU WHOLE-VEHICLE TYPE-APPROVAL CERTIFICATE

Identification of type-approval authority

Communication concerning:
— EU whole-vehicle type-approval <sup>(1)</sup>
— extension of EU whole-vehicle type-approval <sup>(1)</sup> of a complete vehicle type
— refusal of EU whole-vehicle type-approval <sup>(1)</sup>
— withdrawal of EU whole-vehicle type-approval <sup>(1)</sup>
with regard to Regulation (EU) No 168/2013, as last amended by (Commission Delegated) (¹) Regulation (EU) No/ (¹) (⁵)
EU type-approval number:
Reason for extension:
SECTION I
0.1. Make (trade name of manufacturer):
0.2. Type (²):
0.2.1. Variant(s) ( <sup>2</sup> ):
0.2.2. Version(s) ( <sup>2</sup> ):
0.2.3. Commercial name(s) (if available):
0.3. Category, subcategory and sub-subcategory of vehicle (3):
0.4. Company name and address of manufacturer of the complete vehicle:
0.4.1. Name(s) and address(es) of assembly plants:
0.4.2. Name and address of manufacturer's authorised representative, if any:
SECTION II
1. Technical service responsible for carrying out the tests:
2. Date of test report:
3. Number of test report:
SECTION III

The undersigned hereby certifies the accuracy of the manufacturer's description in the attached information document of the vehicle type described above, for which one or more representative samples, selected by the EU type-approval authority, have been submitted as prototypes of the vehicle type and that the attached test results apply to the vehicle type.

▼	B	
▼	В	

	1.	The complete vehicle type meets/does not meet (1) all relevant requirements as listed in Annex II to Regulation (EU) No 168/2013.
	1.1.	Restrictions of validity (1) (6):
	1.2.	Waivers applied (1) (6) (7):
	1.2.1.	Reasons for the waivers (1) (7):
	1.2.2.	Alternative requirements (1) (7):
	2.	The approval is granted/extended/refused/withdrawn (1)
7 <u>M1</u>	2.1.	The approval is granted in accordance with Article 40 of Regulation (EU) No $168/2013$ and the validity of the approval is thus limited to dd/mm/ yyyyy ( $^6$ ).
7 <u>B</u>	Place:	
	Date:	
	signat	and signature (or visual representation of an 'advanced electronic ure' according to Directive 1999/93/EC, including data for eation):
	Attach	nments:
	— In	formation package
	— Те	st results
	sig	ame(s) and specimen(s) of the signature(s) of the person(s) authorised to go certificates of conformity and a statement of their position in the impany
	— A	completed specimen of the certificate of conformity
	NB:	
	ted No W V typ im	this model is used for type-approval of a vehicle as an exemption for new chnology or new concept, pursuant to Article 40 of Regulation (EU) of 168/2013, the heading of the certificate shall read 'EU HOLE-VEHICLE PROVISIONAL TYPE-APPROVAL CERTIFICATE ALID ONLY ON THE TERRITORY OF (4)'. The provisional pe-approval certificate shall also specify the restrictions that have been posed as to its validity and the waivers which have been applied in cordance with Article 30(4) of Regulation (EU) No 168/2013.

— If this model is used for vehicle type-approval for a national small series, pursuant to Article 42 of Regulation (EU) No 168/2013, it shall not bear the heading 'EU VEHICLE TYPE-APPROVAL CERTIFICATE'. The text shall specify the nature of the waivers, the reasons which support them and the alternative requirements granted pursuant to Article 42(2) of Regulation (EU) No 168/2013.

Explanatory notes relating to Appendix 1

(Footnotes and explanations not to be stated on the type-approval certificate)

- (1) Delete where not applicable.
- (2) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I.
- (3) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.
- (4) Indicate the Member State.
- (5) Indicate only the latest amendment in case of an amendment of one or more Articles of Regulation (EU) 168/2013, according to the amendment applied for the EU type-approval.
- (6) Applicable only for type-approval of a vehicle as an exemption for new technology or new concept, pursuant to Article 40 of Regulation (EU) No 168/2013
- (7) Applicable only for vehicle type-approval for a national small series, pursuant to Article 42 of Regulation (EU) No 168/2013.

#### Appendix 2

Model of the EU whole-vehicle type-approval certificate for an incomplete type, a vehicle type with complete and incomplete variants, a vehicle type with completed and incomplete variants or a completed vehicle type

## EU type-approval certificate

#### MODEL B

(to be used for type-approval of a completed or incomplete vehicle or a vehicle type with complete and incomplete variants or with completed and incomplete variants)

Format: A4 (210 × 297 mm)

## EU WHOLE-VEHICLE TYPE-APPROVAL CERTIFICATE

Stamp of approval authority

Communication concerning:	
— EU whole-vehicle type-appr	$\text{roval}^{(1)}$ — of a completed vehicle type <sup>(1)</sup>
<ul> <li>extension of EU whole- type-approval<sup>(1)</sup></li> </ul>	vehicle — of an incomplete vehicle type <sup>(1)</sup>
<ul> <li>refusal of EU whole-type-approval<sup>(1)</sup></li> <li>withdrawal of EU whole-type-approval<sup>(1)</sup></li> </ul>	— of a vehicle type with completed
with regard to Regulation (EU) Delegated) (1) Regulation (EU) 1	No 168/2013, as last amended by (Commission No $\dots/\dots$ (1) (8)
EU type-approval number (1):	
Reason for extension (1):	
	SECTION I
0.1. Make (trade name of ma	nufacturer):
0.2. Type (²):	
0.2.1. Variant(s) (²):	
0.2.2. Version(s) ( <sup>2</sup> ):	
0.2.3. Commercial name(s) (if	available):
0.3. Category, subcategory an	d sub-subcategory of vehicle (3):
0.4. Company name and ac vehicle (1) (4):	ddress of the manufacturer of the complete
Company name and add ant $(^1)$ $(^4)$ :	ress of the manufacturer of the complete vari-
Company name and addrevariant (1) (4):	ess of the manufacturer of the completed vehicle/
Company name and addr of the incomplete vehicle	tess of the manufacturer of the latest built stage $e^{(1)}(4)$ :
Company name(s) and ac stage(s) (1) (4):	ddress(es) of the manufacturer(s) of all previous
0.4.1. Name(s) and address(es)	of assembly plant(s):
0.4.2 Name and address of the	manufacturer's representative (if any):

**▼**<u>M1</u>

**▼**<u>B</u>

#### SECTION II

	SECTION II
Technic	ral service responsible for carrying out the tests:
Date of	test report:
Number	of test report:
	SECTION III
in the a which o have be	dersigned hereby certifies the accuracy of the manufacturer's description attached information document of the vehicle type described above, for one or more representative samples, selected by the EU approval authority, then submitted as prototypes of the vehicle type and that the attached test apply to the vehicle type.
1. 1	For complete variants
	The complete variants of the vehicle type meet/do not meet (¹) all relevant requirements as listed in Annex II to Regulation (EU) No 168/2013.
2. 1	For completed vehicles/variants
1	The completed vehicle type/completed variant of the vehicle type meets/does not meet (¹) all relevant requirements as listed in Annex II to Regulation (EU) No 168/2013 (⁴):
1	The approval authority has verified that the completed vehicle/variant of the vehicle type meets all applicable technical requirements at the time of granting this type-approval (cf Article 25(6) of Regulation (EU) No 168/2013).
3. 1	For incomplete vehicles/variants
1	The incomplete vehicle type/incomplete variants of the vehicle type meets/does not meet (¹) the technical requirements of the regulatory acts listed in the table in point 2 of section 2 (⁴).
4.	The approval is granted/extended/refused/withdrawn (1)
1	The approval is granted in accordance with Article 40 of Regulation (EU) No 168/2013 and the validity of the approval is thus limited to dd/mm/yyyyy (6).
5. 1	Restrictions of validity (1) (6):
6.	Waivers applied (1) (6) (7):
6.1. 1	Reasons for the waivers (1) (7):
6.2.	Alternative requirements (1) (7):
Place: .	
Data:	

Name and signature (or visual representation of an 'advanced electronic signature' according to Directive 1999/93/EC, including data for verification):

#### Attachments:

- Information package
- Test results
- 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
- A completed specimen of the certificate of conformity

NB:

#### **▼**<u>M1</u>

— If this model is used for type-approval of a vehicle as an exemption for new technology or new concept, pursuant to Article 40 of Regulation (EU) No 168/2013, the heading of the certificate shall read 'EU WHOLE-VEHICLE PROVISIONAL TYPE-APPROVAL CERTIFICATE VALID ONLY ON THE TERRITORY OF ... (5)". The provisional type-approval certificate shall also specify the restrictions that have been imposed as to its validity and the waivers which have been applied in accordance with Article 30(4) of Regulation (EU) No 168/2013.

#### **▼**B

— If this model is used for vehicle type-approval for a national small series, pursuant to Article 42 of Regulation (EU) No 168/2013, it shall not bear the heading 'EU VEHICLE TYPE-APPROVAL CERTIFICATE'. The text shall specify the nature of the waivers, the reasons which support them and the alternative requirements granted pursuant to Article 42(2) of Regulation (EU) No 168/2013.

#### EU WHOLE-VEHICLE TYPE-APPROVAL CERTIFICATE

#### SECTION 2

This EU type-approval concerns incomplete and completed vehicles, variants or versions.

1. Previous stage(s) approval(s) for the vehicles.

Stage	EU type-approval number	Dated	Applicable to (as appropriate)	Variants or versions which are complete or completed (as appropriate) (*)
1				
(base vehicle)				
2				

- (\*) 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.
- 2. 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	As amended by	Applicable to variant or, if need be, to version

(List only subjects for which an EU type-approval/UNECE approval exists.)

#### **▼**<u>M1</u>

Explanatory notes relating to Appendix 2

(Footnotes and explanations not to be stated on the type-approval certificate)

- (1) Delete where not applicable.
- (2) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I.
- (3) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.
- (4) See section 2.
- (5) Indicate the Member State.
- (6) Applicable only for type-approval of a vehicle as an exemption for new technology or new concept, pursuant to Article 40 of Regulation (EU) No 168/2013.
- (7) Applicable only for vehicle type-approval for a national small series, pursuant to Article 42 of Regulation (EU) No 168/2013.
- (8) Indicate only the latest amendment in case of an amendment of one or more Articles of Regulation (EU) 168/2013, according to the amendment applied for the EU type-approval.

## Appendix 3

## Model of the addendum to the EU type-approval certificate

Addendum to the EU type-approval certificate

## List of regulatory acts with which the type of vehicle complies

To be filled in only in the case of type-approval in accordance with Article 30(6) of Regulation (EU) No 168/2013

Item	Subject	Regulatory act reference	As amended by	Applicable to version
ENVIRO	ONMENTAL AND PROPULSION U	NIT PERFORMANCE REQUIREM	MENTS (EPPR)	1
1	Tailpipe emissions after cold start	Commission Delegated Regulation (EU) No 134/2014 Annex II		
2	Tailpipe emissions at (increased idle)/ free acceleration test	Commission Delegated Regulation (EU) No 134/2014 Annex III		
3	Emissions crank-case gases	Commission Delegated Regulation (EU) No 134/2014 Annex IV		
4	Evaporative emissions	Commission Delegated Regulation (EU) No 134/2014 Annex V		
5	Durability of pollution-control devices	Commission Delegated Regulation (EU) No 134/2014 Annex VI		
6	Measurement of CO <sub>2</sub> emissions, fuel consumption, electric energy consumption and electric range determination	Commission Delegated Regulation (EU) No 134/2014 Annex VII		
7	Environmental on-board diagnosis (OBD) tests	Commission Delegated Regulation (EU) No 134/2014 Annex VIII		
8	Permissible sound level	Commission Delegated Regulation (EU) No 134/2014 Annex IX		
9	Procedures and technical requirements on maximum vehicle design speed, maximum torque, maximum continuous total power and maximum peak power	Commission Delegated Regulation (EU) No 134/2014 Annex X		
10	Vehicle propulsion family definition	Commission Delegated Regulation (EU) No 134/2014 Annex XI		

Item	Subject	Regulatory act reference	As amended by	Applicable to version	
VEHICL	VEHICLE FUNCTIONAL SAFETY REQUIREMENTS				
1	Audible warning devices	Commission Delegated Regulation (EU) No 3/2014 Annex II			
2	Braking, including anti-lock and combined brake systems	Commission Delegated Regulation (EU) No 3/2014 Annex III			
3	Electrical safety	Commission Delegated Regulation (EU) No 3/2014 Annex IV			
4	Manufacturer declaration requirements regarding endurance testing of functional safety-critical systems, parts and equipment	Commission Delegated Regulation (EU) No 3/2014 Annex V			
5	Front and rear protective structures	Commission Delegated Regulation (EU) No 3/2014 Annex VI			
6	Glazing, windscreen wipers and washers, and defrosting and demisting systems	Commission Delegated Regulation (EU) No 3/2014 Annex VII			
7	Driver-operated controls including identification of controls, tell-tales and indicators	Commission Delegated Regulation (EU) No 3/2014 Annex VIII			
8	Installation of lighting and light-signalling devices, including automatic switching of lighting	Commission Delegated Regulation (EU) No 3/2014 Annex IX			
9	Rearward visibility	Commission Delegated Regulation (EU) No 3/2014 Annex X			
10	Rollover protective structure (ROPS)	Commission Delegated Regulation (EU) No 3/2014 Annex XI			
11	Safety-belt anchorages and safety-belts	Commission Delegated Regulation (EU) No 3/2014 Annex XII			
12	Seating positions (saddles and seats)	Commission Delegated Regulation (EU) No 3/2014 Annex XIII			
13	Steer-ability, cornering properties and turn-ability	Commission Delegated Regulation (EU) No 3/2014 Annex XIV			
14	Installation of tyres	Commission Delegated Regulation (EU) No 3/2014 Annex XV			

Item	Subject	Regulatory act reference	As amended by	Applicable to version
15	Vehicle maximum speed limitation plate and its location on the vehicle	Commission Delegated Regulation (EU) No 3/2014 Annex XVI		
16	Vehicle occupant protection, including interior fittings and vehicle doors	Commission Delegated Regulation (EU) No 3/2014 Annex XVII		
17	Maximum continuous total power and/or maximum vehicle speed limitation by design	Commission Delegated Regulation (EU) No 3/2014 Annex XVIII		
18	Requirements on vehicle structure integrity	Commission Delegated Regulation (EU) No 3/2014 Annex XIX		
VEHICI	LE CONSTRUCTION AND GENER	AL TYPE-APPROVAL REQUIRE	MENTS	
1	Powertrain tampering prevention measures (anti-tampering)	Commission Delegated Regulation (EU) No 44/2014 Annex II		
2	Arrangements for type-approval procedures	Commission Delegated Regulation (EU) No 44/2014 Annex III		
3	Conformity of production	Commission Delegated Regulation (EU) No 44/2014 Annex IV		
4	Coupling devices and attachments	Commission Delegated Regulation (EU) No 44/2014 Annex V		
5	Devices to prevent unauthorised use	Commission Delegated Regulation (EU) No 44/2014 Annex VI		
6	Electromagnetic compatibility (EMC)	Commission Delegated Regulation (EU) No 44/2014 Annex VII		
7	External projections	Commission Delegated Regulation (EU) No 44/2014 Annex VIII		
8	Fuel storage	Commission Delegated Regulation (EU) No 44/2014 Annex IX		
9	Load platforms	Commission Delegated Regulation (EU) No 44/2014 Annex X		
10	Masses and dimensions	Commission Delegated Regulation (EU) No 44/2014 Annex XI		

Item	Subject	Regulatory act reference	As amended by	Applicable to version
11	On-board diagnostics (OBD) functional requirements	Commission Delegated Regulation (EU) No 44/2014 Annex XII		
12	Passenger handholds and footrests	Commission Delegated Regulation (EU) No 44/2014 Annex XIII		
13	Registration plate space	Commission Delegated Regulation (EU) No 44/2014 Annex XIV		
14	Access to repair and maintenance information	Commission Delegated Regulation (EU) No 44/2014 Annex XV		
15	Stands	Commission Delegated Regulation (EU) No 44/2014 Annex XVI		

## Appendix 4

# Model of the EU type-approval certificate for a vehicle system EU type-approval certificate

## MODEL C

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

Format: A4 (210 × 297 mm)

## EU TYPE-APPROVAL CERTIFICATE

Stamp of approval authority

Commu	nication concerning:		
— EU	— EU type-approval <sup>(1)</sup>		
— ext	— extension of EU type-approval <sup>(1)</sup>		
— refi	- refusal of EU type-approval <sup>(1)</sup> of a type of system/a type of a vehicle with regard to a system <sup>(1)(0)</sup>		
— wit	hdrawal of EU type-approval <sup>(1)</sup>		
No/	gard to Annex(es) $(^a)$ to Commission Delegated Regulation(s) (EU), (and Annex(es) $(^a)$ to Commission Delegated Regulation (EU)) $(^1)$ as last amended by (Commission Delegated) $(^1)$ Regulation (EU) $(^1)$ $(^6)$		
EU typ	e-approval number (¹) (6)		
Reason	for extension (1)		
	SECTION I		
0.7.	Make(s) (trade name(s) of manufacturer):		
0.8.	Type:		
0.8.1.	Commercial name(s) (if available):		
0.9.	Company name and address of the manufacturer:		
0.9.1.	Name(s) and address(es) of assembly plant(s):		
0.9.2.	Name and address of the manufacturer's representative (if any):		
0.10.	Vehicle(s) for which the system is intended for (b):		
0.10.1.	Type (°):		
0.10.2.	Variant(s) (°):		
0.10.3.	Version(s) (c):		
0.10.4.	Commercial name(s) (if available):		
0.10.5.	Category, subcategory and sub-subcategory of vehicle (3):		
	SECTION II		
1.	Technical service responsible for carrying out the tests:		
2.	Date of test report(s):		

<b>▼</b> B		
_	3.	Number of test report(s):
	4.	Remarks (if any):
▼ <u>M1</u>	4a.	The approval is granted/extended/refused/withdrawn (1)
	4a.1.	The approval is granted in accordance with Article 40 of Regulation (EU No 168/2013 and its validity is thus limited to dd/mm/yyyy ( <sup>5</sup> )
<b>▼</b> <u>B</u>	5.	Restrictions of validity (¹) (5)
	6.	Waivers applied (1) (5)
	Place:	
	Date: .	
	signatu	and signature (or visual representation of an 'advanced electronic re' according to Directive 1999/93/EC, including data for verification)
	Attachı	ments:
	— Info	ormation package
	— Tes	t report

NB:

— If this model is used for type-approval of a system as an exemption for new technology or new concept, pursuant to Article 40 of Regulation (EU) No 168/2013, the heading of the certificate shall read 'EU PROVISIONAL TYPE-APPROVAL CERTIFICATE VALID ONLY ON THE TERRITORY OF .......(4)', The provisional type-approval certificate shall also specify the restrictions that have been imposed as to its validity and the waivers which have been applied in accordance with Article 30(4) of Regulation (EU) No 168/2013.

Explanatory notes relating to Appendix 4:

(Footnotes and explanations not to be stated on the type-approval certificate)

- (0) Indicate the system according to first column of Table 1 in point 6 of Annex VII (e.g. installation of lighting and light-signalling devices).
- (1) Delete where not applicable.
- (3) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.
- (4) Indicate the Member State.
- (5) Applicable only for type-approval of a system as an exemption for new technology or new concept, pursuant to Article 40 of Regulation (EU) No 168/2013.
- (6) Indicate the latest amendment of the Commission Delegated Regulation according to the amendment applied for the EU type-approval.
- (a) The Roman numeral of the relevant Annex to the Commission Delegated Regulation or multiple Roman numerals of the relevant Annexes to the same Commission Delegated Regulation.
- (b) Provide this information for each vehicle type.
- (c) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I.

## Appendix 5

# Model of the EU type-approval certificate for a separate technical unit or component

# EU type-approval certificate

#### MODEL D

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

Format: A4 (210 × 297 mm)

## EU TYPE-APPROVAL CERTIFICATE

Stamp of approval authority

Commu	nication concerning:			
— EU	type-approval <sup>(1)</sup>			
— exte	ension of EU type-approval <sup>(1)</sup> of a type of component/separate			
— refu	sal of EU type-approval <sup>(1)</sup> technical unit <sup>(1)(0)</sup>			
— with	ndrawal of EU type-approval <sup>(1)</sup>			
with regard to Annex(es) (a) to Commission Delegated Regulation (EU) No/ (and Annex(es) (a) to Commission Delegated Regulation (EU) No/) (1), as last amended by (Commission Delegated) (1) Regulation (EU) No/ (1) (6)				
EU type	e-approval number (¹):			
Reason	for extension (1):			
	SECTION I			
0.7.	Make(s) (trade name(s) of manufacturer):			
0.8.	Type:			
0.8.1.	Commercial name(s) (if available):			
0.9.	Company name and address of the manufacturer:			
0.9.1.	Name(s) and address(es) of assembly plant(s):			
0.9.2.	Name and address of the manufacturer's representative (if any):			
0.10.	In the case of separate technical unit, vehicle(s) for which is intended for (b):			
0.10.1.	Type (c)			
0.10.2.	Variant(s) (°):			
0.10.3.	Version(s) (°):			
0.10.4.	Commercial name(s) (if available):			
0.10.5.	Category, subcategory and sub-subcategory of vehicle (3):			
	SECTION II			
1.	Technical service responsible for carrying out the tests:			
2.	Date of test report(s):			

## **▼**B 3. Number of test report(s): 4. Remarks (see addendum): **▼** M1 The approval is granted/extended/refused/withdrawn (1) ...... 4a 4a.1. The approval is granted in accordance with Article 40 of Regulation (EU) No 168/2013 and its validity is thus limited to dd/mm/yyyy<sup>(5)</sup> ...... Restrictions of validity (1) (5): 5. Waivers applied (1) (5): 6. **▼**B

Place:

Date:

Name and signature (or visual representation of an 'advanced electronic signature' according to Directive 1999/93/EC, including data for verification):

Attachments:

- Information package
- Test report

NB:

— If this model is used for type-approval of a component or separate technical unit as an exemption for new technology or new concept, pursuant to Article 40 of Regulation (EU) No 168/2013, the heading of the certificate shall read 'EU PROVISIONAL TYPE-APPROVAL CERTIFICATE VALID ONLY ON THE TERRITORY OF ... (4)', The provisional type-approval certificate shall also specify the restrictions that have been imposed as to its validity and the waivers which have been applied in accordance with Article 30(4) of Regulation (EU) No 168/2013.

Explanatory notes relating to Appendix 5

(Footnotes and explanations not to be stated on the type-approval certificate)

- (0) Indicate the component/separate technical unit according to first column of Table 1 in point 6 of Annex VII (e.g. devices to prevent unauthorised use)
- (1) Delete where not applicable.
- (3) Classified according to Article 4 of and Annex I to Regulation (EU) No 168/2013, the coding shall be indicated, e.g. 'L3e-A1E' for a low-performance Enduro motor-cycle.
- (4) Indicate the Member State
- (5) Applicable only for type-approval of a component or separate technical unit as an exemption for new technology or new concept, pursuant to Article 40 of Regulation (EU) No. 168/2013
- (6) Indicate the latest amendment of the Commission Delegated Regulation according to the amendment applied for the EU type-approval.
- (a) The Roman numeral of the relevant Annex to the Commission Delegated Regulation or multiple Roman numerals of the relevant Annexes to the same Commission Delegated Regulation.
- (b) Provide this information for each vehicle type.
- (c) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I.

#### Appendix 6

# Model of the addendum to the EU type-approval certificate for a separate technical unit or component

Addendum to the EU type-approval certificate

	DDENDUM TO THE EU TYPE-APPROVAL CERTIFICATE WITH EU /PE-APPROVAL NUMBER
1.	<b>Restriction of use of the</b> (°) (1)(2):
2.	Special conditions for the mounting of the $(^0)$ $(^1)$ $(^2)$ :
3.	Remarks (0):

Explanatory notes relating to Appendix 6

(Footnotes and explanations not to be stated on the addendum to the type-approval certificate)

- (0) Delete where not applicable.
- (1) Identify the component or separate technical unit according to the first column of Table 1 in point 6 of Annex VII to this Regulation (e.g. devices to prevent unauthorised use).
- (2) In accordance with Article 31(4) of Regulation (EU) No 168/2013, indicate the restrictions of use and the special conditions for the mounting of the component/separate technical unit.

#### ANNEX VII

#### Numbering system of the EU type-approval certificate

- EU type-approval certificates shall be numbered in accordance with the method set out in this Annex.
- The EU type-approval number shall consist of a total of four sections for whole-vehicle type-approvals and five sections for type-approval of systems, components, and separate technical units as detailed below. In all cases, the sections shall be separated by an asterisk ('\*').
- 2.1. Section 1: The lower-case letter 'e' followed by the distinguishing number of the Member State issuing the EU type-approval, applicable for all type-approval numbers.

1	Germany	19	Romania
2	France	20	Poland
3	Italy	21	Portugal
4	The Netherlands	23	Greece
5	Sweden	24	Ireland
6	Belgium	25	Croatia
7	Hungary	26	Slovenia
8	Czech Republic	27	Slovakia
9	Spain	29	Estonia
11	United Kingdom	32	Latvia
12	Austria	34	Bulgaria
13	Luxembourg	36	Lithuania
17	Finland	49	Cyprus
18	Denmark	50	Malta

- 2.2. Section 2: The number of the applicable Regulation or Commission Delegated Regulation.
  - in case of EU whole-vehicle type-approval '168/2013' shall be indicated:
  - in the case of national small-series whole-vehicle type-approvals in accordance with Article 42 of Regulation (EU) No 168/2013, the letters NKS in block capitals shall precede the '168/2013';
  - in the case of a system, component or separate technical unit type-approval, the number of the corresponding Commission Delegated Regulation supplementing Regulation (EU) No 168/2013: '3/2014', '44/2014' or '134/2014' shall be indicated.
- 2.3. Section 3: the latest amending Commission Delegated Regulation (e.g. 'RRR/2016') followed by the identification code of the system, component or separate technical unit and the stage of implementation applicable to the type-approval according to Table 1 of point 5.:
  - In the case of EU whole-vehicle type-approval, section 3 shall be omitted;
  - In the case of EU type-approval of a system, component or separate technical unit, the number of the last amending Commission Delegated Regulation followed with an alphanumerical character as set out in Table 1 of point 5. to clearly identify the type of system, component or separate technical unit shall be indicated.

- 2.4. Section 4: Sequential number for type-approval certificates.
  - A sequential number with leading zeros (as applicable), to denote the type-approval number. The sequential number shall have five digits starting from '00001'.
- 2.5. Section 5: Sequential number to denote the extension number of the type-approval
  - a two-digit sequential number, with leading zero as applicable, starting from '00' for each type-approval number issued.
- 3. On the vehicle's statutory plate(s) only, section 5 shall be omitted.
- Lay-out of the type-approval numbers (with fictive sequential numbers and fictive amending Commission Delegated Regulation number ('RRR/2016') for explanation purposes)

Example of a component/separate technical unit type-approval of an audible warning device, which has not yet been extended, issued by France:

- e2\*3/2014\*3/2014N\*00003\*00
  - e2 = France (section 1)
  - 3/2014 = Commission Delegated Regulation (EU) No 3/2014) (section 2)
  - 3/2014N = repeat the Commission Delegated Regulation (EU) No 3/2014) to denote that it has not been amended and the letter 'N' to indicate that is an audible warning device (section 3)
  - 00003 = type-approval sequential number (section 4)
  - 00 = extension number (section 5)

Example of a vehicle system type-approval of an engine emissions (Euro 4 stage), amended by another Commission Delegated Regulation RRR/2016 which has been extended twice, issued by the Bulgaria:

- e34\*134/2014\*RRR/2016A1\*00403\*02
  - e34 = Bulgaria (section 1)
  - 134/2014 = Commission Delegated Regulation (EU) No 134/2014) (section 2)
  - RRR/2016A1 = amending Commission Delegated Regulation number (RRR/2016) and the letter and number 'A1' to indicate that is a engine emissions (Euro 4 stage) (section 3)
  - 00403 = type-approval sequential number (section 4)
  - 02 = extension number (section 5)

Example of a national small series whole vehicle type-approval, which has been extended once, issued by Austria and granted in accordance with Article 42 of Regulation (EU) No 168/2013:

- e12\*NKS168/2013\*00001\*01
  - e12 = Austria (section 1)
  - NKS168/2013 = Regulation (EU) 168/2013 precede by the national small-series denominator (section 2)
  - 00001 = type-approval sequential number (section 4)
  - 01 = extension number (section 5)

Example of a whole vehicle type-approval number, which has been extended five times, issued by the Netherlands:

- e4\*168/2013\*10690\*05
  - e4 = the Netherlands (section 1)
  - 168/2013 = Regulation (EU) 168/2013 (section 2)
  - 10690 = type-approval sequential number (section 4)
  - 05 = extension number (section 5)

## **▼**<u>M1</u>

**▼**<u>B</u>

Example of a type-approval number to be indicated on a vehicle's statutory plate

- e50\*168/2013\*20089
  - e50 = Malta (section 1)
  - 168/2013 = Regulation (EU) 168/2013 (section 2)
  - 20089 = type-approval sequential number (section 4)

## **▼**<u>M1</u>

Codification for the numbering system of EU type-approval certificates of systems, components and separate technical units

Table 1

# Codification for the numbering system of EU type-approval certificates of systems, components and separate technical units

	LIST I — Environmental and propulsion un	nit performance requireme	ents
	System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No	alphanumerica character
	System: engine emissions (Euro 4 stage)	134/2014	A1
	System: engine emissions (Euro 5 stage)	134/2014	A2
-			
	System: engine emissions (Euro 5+ stage)	134/2014	A3
	System: crankcase (point 1.3.1. and 1.3.2.) and evaporative emissions (point 1.4.1. to 1.4.3 of Annex IV to Regulation (EU) 168/2013)	134/2014	В1
	System: crankcase (point 1.3.1. and 1.3.2.) and evaporative emissions (point 1.4.4. to 1.4.6 of Annex IV to Regulation (EU) 168/2013)	134/2014	B2
	System: crankcase (point 1.3.1. and 1.3.2.) and evaporative emissions (point 1.4.7. to 1.4.8 of Annex IV to Regulation (EU) 168/2013)	134/2014	В3
<u>:</u>			
	System: environmental on-board diagnostic (OBD Stage I: point 1.8.1. to 1.8.2 of Annex IV to Regulation (EU) No 168/2013 in its version applicable on 19.2.2019)	134/2014	C1

**▼**<u>M1</u>

LIST I — E	nvironmental	and	propulsion	unit	performance	requirements

System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No	alphanumerical character
System: environmental on-board diagnostic (OBD Stage II: point 1.8.3. of Annex IV to Regulation (EU) No 168/2013 in its version applicable on 19.2.2019)	134/2014	C2
System: environmental on-board diagnostic (OBD Stage I: point 1.8.3. of Annex IV to Regulation (EU) No 168/2013)	134/2014	С3
System: environmental on-board diagnostic (OBD Stage II: point 1.8.4. of Annex IV to Regulation (EU) No 168/2013)	134/2014	C5
System: environmental on-board diagnostic (OBD Stage II: point 1.8.5. of Annex IV to Regulation (EU) No 168/2013)	134/2014	C6
System: sound level	134/2014	D
System: propulsion unit performance	134/2014	Е
System: maximum torque and a maximum net power of a propulsion unit	134/2014	E1
STU: pollution-control device	134/2014	F
STU: noise-abatement device	134/2014	G
STU: exhaust device (pollution-control device and noise-abatement device)	134/2014	Н

#### LIST II — Vehicle functional safety requirements

System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No	alphanumerical character
System: braking	3/2014	J
System: installation of lighting and light-signalling devices	3/2014	K
System: roll-over protective structure (ROPS)	3/2014	L
System: installation of tyres	3/2014	M
System: installation of audible warning devices	3/2014	AA
System: installation of glazing, windscreen wipers and defrosting and demisting devices	3/2014	AB
System: identification of controls, tell-tales and indi- cators	3/2014	AC

LIST II — Vehicle functional safety requirements

Commission Delegated Regulation (EU) No	alphanumerical character
3/2014	AD
3/2014	AE
3/2014	AF
3/2014	N
3/2014	0
3/2014	P
3/2014	Q
3/2014	R
3/2014	S
	Regulation (EU) No  3/2014  3/2014  3/2014  3/2014  3/2014  3/2014  3/2014  3/2014

LIST III — Vehicle construction and general type-approval requirements

System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) No	alphanumerical character
System: functional on-board diagnostics (OBD Stage I: point 1.8.1. to 1.8.2 of Annex IV to Regulation (EU) 168/2013)	44/2014	Т1
System: functional on-board diagnostics (OBD Stage II: point 1.8.3. of Annex IV to Regulation (EU) 168/2013)	44/2014	T2
STU: trailer coupling device	44/2014	U
STU: devices to prevent unauthorised use	44/2014	V
STU: passenger handholds	44/2014	W
STU: footrests	44/2014	X
STU: side-car	44/2014	Y
STU: fuel tank	44/2014	Z

#### ANNEX VIII

#### Format of test reports and template for the test results sheet

- 1. General requirements for the format of test reports
- 1.1. For each of the regulatory acts listed in Annex II to Regulation (EU) No 168/2013, the test reports shall comply with the provisions of Standard EN ISO/IEC 17025:2005. In particular it shall include the information mentioned in point 5.10.2, including footnote (1) of that standard.
- 1.2. The test reports shall be drawn up by the technical service in accordance with its rules of good practice.
- 1.3. The test report shall be drafted in one of the official EU languages determined by the approval authority.
- 1.3.1. Where a test has been is issued in another language than the office language(s) of the Member State handling the approval application, the approval authority may require the applicant to provide a certified translation of the test report.
- 1.4. Only authenticated copies of a test report shall be submitted.
- 1.5. The test reports shall include a description of the vehicle tested including its unambiguous identification. The parts having significant influence role in determining the test results shall be described and their identification number indicated.

Examples of parts include the noise-abatement devices for noise measurement and the engine management system (ECU) for measuring tailpipe emissions.

Moreover it shall include at least the following information:

- 1.5.1. A detailed description of the characteristics of the vehicle, system, component or separate technical unit characteristics in connection with the regulatory act.
- 1.5.2. Category, subcategory and sub-subcategory of vehicle tested.
- Tested vehicle sub-classification according to point 4.3. of Annex II to Commission Delegated Regulation (EU) No 134/2014.
- 1.5.4. The information shall indicate the variant(s) and/or version(s) to which it applies. One version shall not have more than one test result. However, a combination of several test results per version, indicating the worst case, is permissible. In this case, a note shall state that for items marked (\*) only worst-case results are given.
- 1.5.5. When the tests are conducted on a vehicle, system, component or technical unit which combines a number of least favourable features concerning the required performance level (the worst-case), the test report shall include a reference stating how the selection was made by the manufacturer in agreement with the technical service.

1.5.6.	Condition of the vehicle influencing the test, such as fitted accessories; actual masses; test voltage; tyre sizes; tyre pressures; etc.;
1.5.7.	Identification of the system, component or separate technical unit tested;
1.5.8.	Ambient conditions influencing the test: atmospheric pressure (kPa); relative humidity (%); ambient temperature (K); wind speed and direction on test track (km/h), etc.;
1.5.9.	The measurement results specified in the relevant regulatory acts and, where required, the limits or thresholds to be met;
1.5.10.	With regard to each measurement mentioned in point 1.5.5., the relevant decision: passed or failed;
1.5.11.	A detailed statement of compliance with the various provisions to be met, i.e. provisions for which measurements were not required.
1.5.12.	When test methods other than those prescribed in the regulatory acts are permitted, the report shall describe the test method used. The same applies when alternative provisions to those in the regulatory acts may be applied;
1.5.13.	The number of photographs to be taken during testing shall be decided by the technical service to the satisfaction of the approval authority. In the case of virtual testing, screen prints or other suitable evidence may replace photographs;
1.5.14.	Technical service and persons responsible for carrying out the test and their position in the organisation;
1.5.15.	Conclusions drawn up;
1.5.16.	When opinions, assumptions and interpretations have been made, they shall be documented properly and marked as such in the test report;
2.	Minimum information to be included in the test reports
2.1.	In addition to the general requirements set out in point 1, the test reports shall contain as a minimum the information set out in point 2.2. This information can be grouped in an executive summary of the test report(s) applicable to the vehicle, system, component and separate technical unit, or be included in the test report(s) itself/themselves.
2.2.	Minimum information of the test reports by subject (Annex II to Regulation (EU) 168/2013

## 2.2.1. (A) Environmental and propulsion unit performance

# 2.2.1.1. Generic information on environmental performance

The test report shall contain the following generic test data (only needed once per test type):

<b>▼</b> <u>B</u>		
_	2.2.1.1.1.	Description of propulsion, propulsion family and drive-train of test vehicle(s) (3):
▼ <u>M2</u>	2.2.1.1.2.	Environmental step of test vehicle: Euro 3, Euro 4, Euro 5, Euro 5+ (3) (4)
▼ <u>B</u>	2.2.1.1.3.	Description of emission test bench(es), specifications and settings (3):
	2.2.1.1.4.	Chassis/engine dynamometer(s) specifications (³):
	2.2.1.1.5.	Inertia (reference) mass and running resistance settings for single/dual (³) roll chassis dynamometer (4):
	2.2.1.1.6.	Comprehensive report of road test results for the determination of test bench settings, including coast down times for single/dual (³) roll chassis dynamometer (4):
	2.2.1.1.7.	Applicable test type I driving schedule (ECE R40 (with/without EUDC), ECE R47, WMTC stage 1, WMTC stage 2, revised WMTC) (3) (4):
	2.2.1.1.8.	Description gearshift prescriptions for environmental testing (3):
	2.2.1.2.	Test type I: requirements: tailpipe emissions after cold start
		The following items specific to test type I shall be provided $(^3)$ :
	2.2.1.2.1.	Description of tested vehicle(s) (prototype(s) or series production, hardware and software levels, VIN) (3):
	2.2.1.2.2.	Any deviations by test vehicle(s) from data provided in information document, Annex I: yes/no (³) (4). If yes, please provide list with deviations.
	2.2.1.2.3.	Type-approval number if not parent vehicle (3):
	2.2.1.2.4.	Mileage(s) of test vehicle(s) (3):
	2.2.1.2.5.	Test fuel(s) used (3):
	2.2.1.2.6.	Description of test type I measurement methods for hybrid L-category vehicles referred to in Appendix 11 to Annex II to Commission Delegated Regulation (EU) No 134/2014 (³)
	2.2.1.2.7.	Description of test type I measurement methods for gas-fuelled vehicles referred to in Appendix 12 to Annex II to Commission Delegated Regulation (EU) No 134/2014 (3)
	2.2.1.2.8.	Description of test type I measurement methods for vehicles equipped with a periodically regenerating system referred to in Appendix 13 to Annex II to Commission Delegated Regulation (EU) No 134/2014 (3):
	2.2.1.2.9.	Information on regeneration strategy (3):
		D (number of operating cycles between 2 cycles when regenerative phases occur) (3):
		d (number of operating cycles required for regeneration) (3):

- 2.2.1.2.10. Description of weighting of type I test results as referred to in point 6.1.1.5. of Annex II to Commission Delegated Regulation (EU) No 134/2014 including equation number and weighting factors (3):
- 2.2.1.2.11. Number of type I operating cycles between two cycles where regenerative phases occur under the conditions equivalent to type I test (Distance 'D' in Figure Ap13-1 in Appendix 13 to Annex II to Commission Delegated Regulation (EU) No 134/2014) (3):
- 2.2.1.2.12. Description of method employed to determine the number of cycles between two cycles where regenerative phases occur (3):
- 2.2.1.2.13. Parameters to determine the level of loading required before regeneration occurs (i.e. temperature, pressure etc.) (3): ..........
- 2.2.1.2.14. Description of method used to load system in the test procedure described in point 3.1. of Appendix 13 to Annex II to Commission Delegated Regulation (EU) No 134/2014) (3):
- 2.2.1.2.15. Test records according to point 7 of Annex II to Commission Delegated Regulation (EU) No 134/2014 (3): ......
- 2.2.1.2.16. Type I test results (3):

Table 5-1

## Test type 1 results

Test Type I Test Results (TR <sub>TTIx</sub> )	Test No	СО	ТНС	NMHC	NOx	THC + NOx (ix)	PM
	1						
TR <sub>TTI Measured x</sub> (i) (iv) (mg/km)	2						
	3						
TR <sub>TTI Measured x Mean</sub> (i) (iv) (mg/km)							
$K_{i}$ (i) (v) (vii)						(ii)	
( no unit )							
$\overline{TR_{TTIx}(^i)(^{vi})} = K_i \cdot TR_{TTI \ Measured \ x \ Mean}$						(iii)	
(mg/km) & (% of $L_x$ )							
Limit value L <sub>x</sub> (viii) (mg/km)						·	

<sup>(</sup>i) Where applicable.

<sup>(</sup>ii) Not applicable.

<sup>(</sup>iii) Mean value calculated by adding mean values (M · K<sub>i</sub>) calculated for THC and NOx.

<sup>(</sup>iv) Round to 2 decimal places.

<sup>(</sup>v) Round to 4 decimal places.

<sup>(</sup>vi) Round to 0 decimal places

<sup>(</sup>vii) Set  $K_i = 1$  in case:

<sup>(</sup>a) the vehicle is  $\frac{\mathbf{not}}{\mathbf{not}}$  equipped with a periodically regenerating emission abatement system or; (b) the vehicle is  $\frac{\mathbf{not}}{\mathbf{not}}$  a hybrid electric vehicle.

<sup>(</sup>viii) Test limit x set out in Annex VI(A) to Regulation (EU) No 168/2013. x = 1 to 4 and refers to the numbering of the pollutant constituents in Annex VI(A), e.g. the Euro 4 limit for CO is referred to as  $L_1$ , the limit for THC is referred to as  $L_2$ , the limit for NO<sub>x</sub> as  $L_3$  and the limit for PM as  $L_4$ .

<sup>(</sup>ix) The individual THC and NOx measurement values shall also be filled out in this list.

- 2.2.1.3. Test type II requirements: tailpipe emissions at (increased idle)/free acceleration
- 2.2.1.3.1. Details of test vehicle(s) if different from vehicle used for type I testing (³): (items 2.1.2.1.1. to 2.1.2.1.4. where different) (8):
- 2.2.1.3.2. Description of propulsion idling activation method in case of stop-start system (3): ......

#### **▼** M1

2.2.1.3.3. Type II test results (3):

Table 5-2
Test type II results

Test	HC (ppm)	CO (% vol.)	Lambda	Engine speed (min-)	Engine oil temperature-	Measured & corrected value of absorption coefficient (m-1)
PI: Low idle test						_
PI: High idle test						_
CI — Free acceleration test / Smoke opacity test results	_	_	_	_	_	

## **▼**<u>B</u>

- 2.2.1.4. Test type III requirements: emissions of crank-case gases
- 2.2.1.4.1. Details of test vehicle(s) if different from vehicle used for type I testing (³): (items 2.1.2.1.1. to 2.1.2.1.4. where different) (8):
- 2.2.1.4.2. Type of crank-case gas recycling system (breather system, positive crank-case ventilation system, other) (3)
- 2.2.1.4.3. System for recycling crank-case gases (description and drawings) (3): ......
- 2.2.1.4.4. Test type III performance results (3):
- 2.2.1.4.5. Zero emissions from the crank-case gas system: yes/no (3) (4):
- 2.2.1.5. Type IV test requirements: evaporative emissions
- 2.2.1.5.1. Evaporative emissions control system: yes/no (3) (4)
- 2.2.1.5.2. List of 'golden components' used for evaporative emission testing complete with series, part and marking number (3): .....

- 2.2.1.5.3. Fuel permeability test result (3): ...... mg/day.
- 2.2.1.5.4. If the approved L-category vehicle complies with the evaporative emission requirements of Euro 4, the manufacturer shall indicate the SHED laboratory test type IV results  $TR_{TTIVST}$  in the table below. The SHED test results shall indicate both mg/test and % of  $L_{TTIVST}$  (3)

#### 2.2.1.5.5. Euro 4 evaporative emission test results (3)

Table 5-3

Euro 4 SHED test type IV results

Vehicle category	SHED test limit L <sub>TTIVST</sub> : Mass of total hydrocarbons (THC) (mg/ test)	SHED test result TR <sub>TTIVST</sub> : Mass of total hydrocarbons (THC) (mg/ test) & (% of L <sub>TTIVST</sub> )
L3e		
L4e		
L5e-A	L <sub>TTIVST</sub> : 2 000	TR <sub>TTIVST</sub> :
L6e-A		
L7e-A		

- 2.2.1.5.6. If the approved L-category vehicle complies with the evaporative emission requirements of the Euro 5 step, the manufacturer shall provide (3):
- 2.2.1.5.6.1. The SHED laboratory test type IV results  $TR_{TTIVST}$  to be indicated in the applicable part of the table below. The test results shall indicate both mg/test and % of  $L_{TTIVST}$  (3)
- 2.2.1.5.6.2. The evaporative emissions test type IV results  $TR_{TTIVPT}$  and  $TR_{TTIVPT}$  to be indicated in the applicable part of the table below. The test results shall indicate both  $mg/m^2/day$  and % of  $L_{TTIVPTfink}$  and % of  $L_{TTIVPTfink}$  (3)

#### 2.2.1.5.6.3. Euro 5 evaporative emission test results (3)

Table 5-4

Euro 5 SHED or permeation test type IV results

Vehicle category	Permeatic (mg/m²/day) & (	Mass of total Hydrocarbons (THC) in SHED test(mg/test) & (% of L <sub>TTIVST</sub> )	
	Fuel tank Fuel tubing		Vehicle
7.1	L <sub>TTIVPTftnk</sub> : 1 500	L <sub>TTIVPTftbg</sub> : 15 000	L <sub>TTIVST</sub> : 1 500
L1e-A	TR <sub>TTIVPTftnk</sub> :	TR <sub>TTIVPTftbg</sub> :	TR <sub>TTIVST</sub> :
L1e-B	L <sub>TTIVPTftnk</sub> : 1 500	L <sub>TTIVPTftbg</sub> : 15 000	L <sub>TTIVST</sub> : 1 500
	TR <sub>TTIVPTftnk</sub> :	TR <sub>TTIVPTftbg</sub> :	TR <sub>TTIVST</sub> :

Vehicle category	Permeatii (mg/m²/day) & (	Mass of total Hydrocarbons (THC) in SHED test(mg/test) & (% of L <sub>TTIVST</sub> )	
1.0	L <sub>TTIVPTftnk</sub> : 1 500	L <sub>TTIVPTftbg</sub> : 15 000	L <sub>TTIVST</sub> : 1 500
L2e	TR <sub>TTIVPTftnk</sub> :	TR <sub>TTIVPTftbg</sub> :	TR <sub>TTIVST</sub> :
	_	_	L <sub>TTIVST</sub> : 1 500
L3e	_	_	TR <sub>TTIVST</sub> :
	_	_	L <sub>TTIVST</sub> : 1 500
L4e	_	_	TR <sub>TTIVST</sub> :
7.5.4	_	_	L <sub>TTIVST</sub> : 1 500
L5e-A	_	_	TR <sub>TTIVST</sub> :
	L <sub>TTIVPTftnk</sub> : 1 500	L <sub>TTIVPTftbg</sub> : 15 000	L <sub>TTIVST</sub> : 1 500
L5e-B	TR <sub>TTIVPTftnk</sub> :	TR <sub>TTIVPTftbg</sub> :	TR <sub>TTIVST</sub> :
	_	_	L <sub>TTIVST</sub> : 1 500
L6e-A	_	_	TR <sub>TTIVST</sub> :
I.C. D	L <sub>TTIVPTftnk</sub> : 1 500	L <sub>TTIVPTftbg</sub> : 15 000	L <sub>TTIVST</sub> : 1 500
L6e-B	TR <sub>TTIVPTftnk</sub> :	TR <sub>TTIVPTftbg</sub> :	TR <sub>TTIVST</sub> :
	_	_	L <sub>TTIVST</sub> : 1 500
L7e-A	_	_	TR <sub>TTIVST</sub> :
17.0	L <sub>TTIVPTftnk</sub> : 1 500	L <sub>TTIVPTftbg</sub> : 15 000	L <sub>TTTIVST</sub> : 1 500
L7e-B	TR <sub>TTIVPTftnk</sub> :	TR <sub>TTIVPTftbg</sub> :	TR <sub>TTIVST</sub> :
17.0	L <sub>TTIVPTftnk</sub> : 1 500	L <sub>TTIVPTftbg</sub> : 15 000	L <sub>TTIVST</sub> : 1 500
L7e-C	TR <sub>TTIVPTftnk</sub> :	TR <sub>TTIVPTftbg</sub> :	TR <sub>TTIVST</sub> :

# 2.2.1.6. Test type V requirements: durability of pollution-control devices

- 2.2.1.6.2. Test type V carried out on: test track, on the road, on a chassis dynamometer (3)
- 2.2.1.6.3. The test type V data outcome and the correspondent test report shall vary in relation with the chosen durability procedure set out in Article 23(3) of Regulation (EU) No 168/2013, established as follows (3):
- 2.2.1.6.3.1. Test type V conducted according to Article 23(3a): full mileage accumulation (<sup>3</sup>)

2.2.1.6.3.1.8.

2.2.1.6.3.1.1.	Test cycle used (US EPA AMA cycle, SRC-LeCV) (3) (4):
2.2.1.6.3.1.2.	In the case of SRC-LeCV, applicable durability test cycle vehicle group, refer to Appendix 1 to Annex V to Commission Delegated Regulation (EU) No 134/2014 (SRC-LeCV group No 1, 2, 3 or 4) (³) (4):
2.2.1.6.3.1.3.	In the case of SRC-LeCV, amount of test type V soak procedures:
2.2.1.6.3.1.4.	In the case of US EPA AMA cycle, classification according to Appendix 2 to Annex V to Commission Delegated Regulation (EU) No 134/2014 (class I, II or III) (3) (4).
2.2.1.6.3.1.5.	Mileage test vehicle(s) (3):
2.2.1.6.3.1.6.	Catalyst time-at-temperature data histogram (3):
2.2.1.6.3.1.6.	List of maintenance and adjustments over mileage accumulation (3):
2.2.1.6.3.1.7.	The collection of test type I results (1 to n), ( see 2.2.1.2.16.), the calculated slopes and offsets, and the calculated test type V results shall be entered in the table below (3).

Test type V results in case of compliance with Article 23(3a) of Regulation (EU) No 168/2013

Table 5-5

V 1		•		,	, ,	`		
Test Type V Test Results (TR <sub>TTVx</sub> )	Test No	Accumulated mileage (km)	СО	THC	NMHC	NOx	THC + NOx (ii)	PM
$ \begin{array}{c} TR_{TTVx} \left( \stackrel{.}{i} \right) \left( mg/km \right)  \& \\ \left( \stackrel{.}{\%}   of   L_x \right) \end{array} $	1	100 km						
TR <sub>TTVx</sub> (i) (mg/km) & (% of L <sub>x</sub> )	2							
TR <sub>TTVx</sub> (i) (mg/km) & (% of L <sub>x</sub> )	3							
TR <sub>TTVx</sub> (i) (iv) (mg/km) & (% of L <sub>x</sub> )	N	(iii)						
Limit value L <sub>x</sub> (v)								

<sup>(</sup>i) Where applicable.
(ii) The individual THC and NOx measurement values shall also be entered in this list.
(iii) Final mileage set out in Annex VII(A) to Regulation (EU) No 168/2013
(iv) Round to 0 decimal places
(v) Test limit x set out in Annex VI(A) to Regulation (EU) No 168/2013. x = 1 to 4 and refers to the numbering of the pollutant constituents in Annex VI(A); e.g. the Euro 4 limit for CO is referred to as L<sub>1</sub>, the limit for THC is referred to as L<sub>2</sub>, the limit for NO<sub>x</sub> as L<sub>3</sub> and the limit for PM as L<sub>4</sub>.

2.2.1.6.3.2.	Test type V conducted according to Article 23(3b): partial mileage accumulation (3).
2.2.1.6.3.2.1.	Test cycle used (SRC-LeCV): yes/no (3) (4):
2.2.1.6.3.2.2.	Applicable SRC-LeCV durability test cycle vehicle group: refer to Commission Delegated Regulation (EU) No 134/2014 (SRC-LeCV group No 1, 2, 3 or 4) (3) (4):
2.2.1.6.3.2.3.	Amount of SRC-LeCV soak procedures (3):
2.2.1.6.3.2.4.	Mileage test vehicle(s) (3):
2.2.1.6.3.2.5.	Applied stop criteria: yes/no (3) (4), which:
2.2.1.6.3.2.6.	List of 'golden components' complete with series, part and marking number (3).
2.2.1.6.3.2.7.	List of 'new components' complete with series, part and marking number (3).
2.2.1.6.3.2.8.	Catalyst time-at-temperature data histogram (3):
2.2.1.6.3.2.9.	List of maintenance and adjustments over mileage accumulation (3).
2.2.1.6.3.2.10.	The collection of test type I results (1 to n), (see 2.2.1.2.16.), the calculated slopes and offsets, and the calculated test type V results shall be entered in the table below (3).

Table 5-6 2.2.1.6.3.2.11.

## Test type V results in case of compliance with Article 23(3b) of Regulation (EU) No 168/2013

Test Type V Test Results (TR <sub>TTV</sub> )	Test No	Accumulated mileage (km)	СО	ТНС	NMHC	NOx	THC + NOx	PM
$\frac{TR_{TTV1_{X}}\left(^{i}\right) \left(mg/km\right)  \&}{\left(\% of L_{x}\right)}$	1	100 km						
Slope a (ii) (no unit)								
Offset b (ii) (no unit)								
Final calculated $TR_{TTVFin}$ (iv) = a · $TR_{TTVnx}$ + b (mg/km) & (% of L <sub>x</sub> )	N							
Limit value L <sub>x</sub> (v) (mg/km)								

<sup>(</sup>i) Where applicable.
(ii) Round to two decimal places.
(iii) > 50 % of final mileage set out in Annex VII(A) to Regulation (EU) No 168/2013
(iv) Round to 0 decimal places
(v) Test limit x set out in Annex VI(A) to Regulation (EU) No 168/2013. x = 1 to 4 and refers to the numbering of the pollutant constituents in Annex VI(A); e.g. the Euro 4 limit for CO is referred to as L<sub>1</sub>, the limit for THC is referred to as L<sub>2</sub>, the limit for NO<sub>x</sub> as L<sub>3</sub> and the limit for PM as L<sub>4</sub>.

#### **▼**B

- 2.2.1.6.3.3. Test type V conducted according to Article 23(3c) of Regulation (EU) No 168/2013, mathematical durability procedure (3).
- 2.2.1.6.3.3.1. The Test Type I results of a vehicle with a mileage of 100 km or more, (see 2.2.1.2.16.), and the applicable deterioration factors set out in Annex VII(B) to Regulation (EU) No 168/2013 shall be entered in the table below along with the calculated test type V results (3).

2.2.1.6.3.3.2. Table 5-7

#### Test type V results in case of compliance with Article 23(3c) of Regulation (EU) No 168/2013

Test Type V Test Results (TR <sub>TTV</sub> )	Accumulated mileage (km)	СО	тнс	NMHC (mg/km)	NOx (mg/km)	THC + NOx (mg/km)	PM (mg/km)
<b>►</b> <u>M2</u> x (°) km <b>◄</b>	100 km						
Deterioration Factor DF <sub>x</sub> (iii) (no unit)							
Final calculated TR $_{TTVFin} = DF_x \cdot TR_{TTVnx}$ $(mg/km) \& (\% \text{ of } L_x)$							
Limit value L <sub>x</sub> (iv) (mg/km)							

- (i) Where applicable.
- (ii) Round to 0 decimal places.
- (iii) Fixed deterioration factors set out in Annex VII(B) to Regulation (EU) No 168/2013; x=1 to 4 and refers to the numbering of the pollutant constituents in Annex VI(A); e.g. the Euro 4 limit for CO is referred to as  $L_1$ , the limit for THC is referred to as  $L_2$ , the limit for NO<sub>x</sub> as  $L_3$  and the limit for PM as  $L_4$ .
- (iv) Test limit x set out in Annex VI(A) to Regulation (EU) No 168/2013, x refers to the pollutant constituent numbering as explained under (iii).
- ► M2 (v) Replace x by 100, 2 500, or 3 500, in accordance with the provisions set out in Article 23(3), point (c) of Regulation (EU) No 168/2013. ◀
- 2.2.1.7. Test type VI has not been assigned; consequently there are no results to be submitted
- 2.2.1.8. Test type VII requirements: measurement of CO<sub>2</sub> emissions, fuel consumption, electric energy consumption and electric range determination
- 2.2.1.8.2. Documentation added according to UNECE Regulation No 101 (OJ L 138, 26.5.2012, p. 1): yes/no  $\binom{3}{4}$
- 2.2.1.8.3. The vehicle manufacturer has ensured that the  $CO_2$  emissions, fuel consumption, electric energy consumption and electric range data are provided to the buyer of the vehicle at the time of purchase of a new vehicle: yes/no (3) (4)
- 2.2.1.8.4. A completed specimen of the test type VII result format used to inform the buyer of the new vehicle is added to the information document: yes/no (3) (4)

Type VII test results, where applicable and for each reference 2.2.1.8.5. fuel tested (3):

**▼**<u>M1</u>

2.2.1.8.6. CO<sub>2</sub> emissions and fuel consumption (3)

Table 5-8

Test Type VII result table for propulsions equipped with a combustion engine only or equipped with not-externally-chargeable (NOVC) hybrid electric propulsion

	· -		
Test Type VII Test Results (TR <sub>TTVII</sub> )	Test No	CO <sub>2</sub> (g/km)	Fuel consumption (l/100km) or (kg/100 km)
TR <sub>TTI</sub> Measured x (i) (ii)	1		
	2		
	3		
TR <sub>TTI</sub> Measured Mean (i) (ii)			
K <sub>i</sub> (¹) (iii) (v) (no unit )			
$\overline{TR_{TTVIIx}(^i)(^{iv})} = K_i \cdot TR_{TTI \text{ Measured } x \text{ Mean}}$			
CO <sub>2</sub> and Fuel consumption as declared by the manufacturer	_		

- (i) Where applicable.(ii) Round to 2 decimal places.
- (iii) Round to 4 decimal places.
- (iv) Round to 0 decimal places
- (v) Set  $K_i = 1$  in case:
  - (a) the vehicle is <u>not</u> equipped with a periodically regenerating emission abatement system or;
  - (b) the vehicle is **not** a hybrid electric vehicle.

#### 2.2.1.8.7. CO<sub>2</sub> emissions/fuel consumption (manufacturer's declared values) (3)

Electric energy consumption and electric range (3):

Table 5-9

Test Type VII result table for pure electric propulsion or not-externally-chargeable (NOVC) propulsions equipped with an electric motor for propulsion

	Measured electric energy consumption (Wh/km)	Declared electric energy consumption (Wh/km)	Measured electric range (km)	Declared electric range (km)
Pure electric powertrain				
NOVC hybrid electric powertrain				

**▼**<u>B</u>

#### 2.2.1.9. Test type VIII requirements: environmental on-board diagnostic (OBD)

2.2.1.9.1. Details of test vehicle(s), its powertrain and pollution-control devices explicitly documented and listed, emission test laboratory equipment and settings, if different from data reported under items 2.1.2.1.1. to 2.1.2.1.10 (3): ......

2.2.1.9.2.

The manufacturer shall enter the emission laboratory test type VIII results  $TR_{TTVIIIx}$  in the table below (both in mg/km and in % of  $TR_{TTVIIIx}$ ) (3):

**▼**<u>M2</u>

2.2.1.9.3.

Test type VIII environmental results (Annex VI (B1) to Regulation (EU) No 168/2013)  $(^3)$ 

*Table 5-11* 

OBD emission thresholds (section B1 of Annex VI to Regulation (EU) No 168/2013) and environmental test results in case of malfunction

**▼**<u>B</u>

**▼**<u>M2</u>

**▼**<u>B</u>

Vehicle category	Propulsion class	opulsion class OBD Thresholds $(OT_x)$ / OBD Test results $(TR_{TTVIIIx})$ $x = 1$ to 3		Mass of total hydrocarbons (THC)	Mass of oxides of nitrogen (NOx)
	DI / DI Halaid	OT <sub>x</sub> (mg / km)	OT <sub>1</sub> : 2 170	OT <sub>2</sub> : 1 400	OT <sub>3</sub> : 350
	PI / PI Hybrid v <sub>max</sub> < 130 km/h	TR <sub>TTVIIIx</sub> (mg / km) & (% of OT <sub>x</sub> )	TR <sub>TTVIII1</sub>	TR <sub>TTVIII2</sub>	TR <sub>TTVIII3</sub>
L3e	Dr. / Dr. vr. 1 . 1	$OT_x$ (mg / km)	OT <sub>1</sub> : 2 170	OT <sub>2</sub> : 630	OT <sub>3</sub> : 450
L4e L5e-A L7e-A	PI / PI Hybrid v <sub>max</sub> ≥ 130 km/h	TR <sub>TTVIIIx</sub> (mg / km) & (% of OT <sub>x</sub> )	TR <sub>TTVIII1</sub> :	TR <sub>TTVIII2</sub> :	TR <sub>TTVIII3</sub> :
		OT <sub>x</sub> (mg / km)	OT <sub>1</sub> : 2 170	OT <sub>2</sub> : 630	OT <sub>3</sub> : 900
	CI / CI Hybrid	OTR <sub>TTVIIIx</sub> (mg / km) & (% of OT <sub>x</sub> )	TR <sub>TTVIII1</sub> :	TR <sub>TTVIII2</sub> :	TR <sub>TTVIII3</sub> :

**▼**<u>M2</u>

2.2.1.9.4.

Test type VIII environmental results (Annex VI (B2) to Regulation (EU) No 168/2013)  $(^3)$ 

*Table 5-12* 

OBD emission thresholds (section B2 of Annex VI to Regulation (EU) No 168/2013) and environmental test results in case of malfunction

**▼**<u>B</u>

Vehicle category	Propulsion class	OBD Thresholds $(OT_x) / OBD$ test results $(TR_{TTVIIIx}) x = 1 \text{ to } 3$	Mass of carbon-monoxi- de (CO)	Mass of non-methane hydrocar-bons- (NMHC)	Mass of oxides of nitrogen (NOx)	Mass of particulate matter (PM)
	PI / PI Hybrid	OT <sub>x</sub> (mg / km)	OT <sub>1</sub> : 1 900	OT <sub>2</sub> : 250	OT <sub>3</sub> : 300	OT <sub>4</sub> : 50
► <u>M2</u> L3e,		TR <sub>TTVIIIx</sub> (mg / km) & (% of OT <sub>x</sub> )	TR <sub>TTVIII1</sub> :	TR <sub>TTVIII2B</sub> :	TR <sub>TTVIII3</sub> :	TR <sub>TTVIII4</sub> :
L4e, L5e and L7e ◀	CI / CI Hybrid TR <sub>TTVI</sub> (mg / kn	OT <sub>x</sub> (mg / km)	OT <sub>1</sub> : 1 900	OT <sub>2</sub> : 320	OT <sub>3</sub> : 540	OT <sub>4</sub> : 50
		TR <sub>TTVIIIx</sub> (mg / km) & (% of OT <sub>x</sub> )	TR <sub>TTVIIII</sub> :	TR <sub>TTVIII2</sub> :	TR <sub>TTVIII3</sub> :	TR <sub>TTVIII4</sub> :

2.2.1.10.	Test type IX requirements: sound level
2.2.1.10.1.	Details of test vehicle(s), its powertrain and noise-abatement control devices explicitly documented and listed, test equipment and settings (3):
2.2.1.10.2.	The approved L-category vehicle complies with UNECE Regulation No 9: yes/no (³) (4)
2.2.1.10.3.	The approved L-category vehicle complies with UNECE Regulation No 41: yes/no (3) (4)
2.2.1.10.4.	The approved L-category vehicle complies with UNECE Regulation No 63: yes/no (3) (4)
2.2.1.10.5.	The replacements noise-abatement device(s) for the approved L-category vehicle comply with UNECE Regulation No 92: yes/no (³) (4)
2.2.1.10.6.	The approved L-category vehicle complies with the test requirements of Annex IX to Commission Delegated Regulation (EU) No 134/2014 and the administrative requirements of the equivalent UNECE Regulations have been included with the information document as set out in table 5-13 of Annex VIII: yes/no (³) (4)
2.2.1.10.7.	Replacement noise-abatement device(s) make(s) and type(s) (3):
2.2.1.10.8.	Location of the type-approval number (add drawings, photographs) (3):
2.2.1.10.9.	The test results shall be reported according to the administrative requirements set out in the table below (3):

## **▼**<u>M1</u>

 $\label{eq:Table 5-13} Test\ result\ requirements\ regarding\ sound\ level$ 

Sound emission level	Euro 4		Euro 5	
Sound level limits	Annex VI(D) to Regulation (EU) No 168/2013	Equivalent UNECE sound level limits to Annex VI(D) to Regulation (EU) No 168/2013	Annex VI(D) to Regulation (EU) No 168/2013	
Test requirements	Annex VIII to Regulation (EU) No 168/2013	UNECE Regulations referred to in Annex VI(D) to Regulation (EU) No 168/2013	UNECE Regulations referred to in Annex VI(D) to Regulation (EU) No 168/2013	

## Administrative requirements for vehicle subcategories regarding sound level:

Vehicle (sub)cat- egories		
L1e, L6e-A	Annex I to UNECE Regulation No 63	UNECE Regu- lation No 63
L3e	Annex I to UNECE Regulation No 41	UNECE Regu- lation No 41

# **▼**<u>M1</u>

Vehicle (sub)cat- egories		
L2e, L4e, L5e, L6e-B, L7e	Annex I to UNECE Regulation No 9	UNECE Regu- lation No 9
Replacement exhaust noise-abatement devices all categories	Annex I to UNECE Regulation No 92	UNECE Regulation No 92

**▼**<u>B</u>

2.2.1.10.10.

In addition the manufacturer shall enter the test type IX results  $TR_{TTIX}$  in the table below where applicable (both in dB(A) and in % of  $SL_{EUx})$  (³):

2.2.1.10.11. Euro 4 or Euro 5 sound test results (3)

**▼**<u>M1</u>

Table 5-14
Sound level test results Euro 4 or Euro 5

Propulsion class I Furo 4 test results I I Furo 5 test results I	Euro 5 sound test procedure
L1e-A PI / CI / SL <sub>EU4</sub> :63 Commission SL <sub>EU5</sub> :  Hybrid Delegated I	UNECE Regulation No 63
TR <sub>TTIXEU4</sub> : Regulation (EU) No 134/ TR <sub>TTIXEU5</sub> :	
L1e-B PI / CI / SL <sub>EU4</sub> :66 Annex VIII / UNECE Regu-	
$v_{max} \le 25$ $km/h$ $TR_{TTIXEU4}$ : lation No 63 $TR_{TTIXEU5}$ :	
PI / CI / SL <sub>EU4</sub> :71 SL <sub>EU5</sub> :	
$v_{max} \le 45$ $km/h$ $TR_{TTIXEU4}$ : $TR_{TTIXEU5}$ :	
L2e PI / CI / SL <sub>EU4</sub> :76 Commission SL <sub>EU5</sub> : Delegated	UNECE Regulation No 9
STR <sub>EU4</sub> :  Regulation (EU) No 134/ 2014 Annex VIII / UNECE Regulation No 9	
L3e PI / CI / SL <sub>EU4</sub> :73 UNECE Regulation No 41	UNECE Regulation
$PMR \le 25 \qquad TR_{TTIXEU4}: \qquad TR_{TTIXEU5}:$	No 41
PI / CI / SL <sub>EU4</sub> :74 SL <sub>EU5</sub> :	
$ \begin{array}{c c} \text{13-5 lik} \\ 25 < \text{PMR} \\ \leq 50 \end{array} \qquad \text{STR}_{\text{EU4}} \text{:} \qquad \qquad \text{STR}_{\text{EU5}} \text{:} $	
PI / CI / SL <sub>EU4</sub> :77 SL <sub>EU5</sub> :	
$PMR > 50 \qquad TR_{TTIXEU4}: \qquad TR_{TTIXEU5}:$	

## **▼**<u>M1</u>

			1		
Vehicle category	Propulsion class	Euro 4 sound level limit  SL <sub>EU4</sub> (dB(A)) / Euro 4 test results  TR <sub>TTIXEU4</sub> (dB(A))& (% of SL <sub>EU4</sub> )	Euro 4 sound test procedure	Euro 5 sound level limit  SL <sub>EU5</sub> (dB(A)) / Euro 5 test results  TR <sub>TTIXEU5</sub> (dB(A)) & (% of SL <sub>EU5</sub> )	Euro 5 sound test procedure
L4e	PI / CI / Hybrid	SL <sub>EU4</sub> :80	Commission Delegated Regulation (EU) No 134/ 2014 Annex VIII / UNECE Regulation No 9	SL <sub>EU5</sub> :	UNECE Regulation
	Tryona	TR <sub>TTIXEU4</sub>		TR <sub>TTIXEU5</sub> :	No 9
L5e-A	PI / CI / Hybrid	SL <sub>EU4</sub> :80	Commission Delegated	SL <sub>EU5</sub> :	UNECE Regulation
	Trybrid	STR <sub>EU4</sub> :	Regulation (EU) No 134/	STR <sub>EU5</sub> :	No 9
L5e-B	e-B PI / CI / Hybrid	SL <sub>EU4</sub> :80	2014 Annex VIII / UNECE Regulation No 9	SL <sub>EU5</sub> :	
	,	STR <sub>EU4</sub> :		STR <sub>EU5</sub> :	
L6e-A	PI / CI / Hybrid	SL <sub>EU4</sub> :80	Commission Delegated Regulation (EU) No 134/ 2014 Annex VIII / UNECE Regulation No 63	SL <sub>EU5</sub> :	UNECE Regulation No 63
		TR <sub>TTIXEU4</sub> :		TR <sub>TTIXEU5</sub> :	
L6e-B	PI / CI / Hybrid	SL <sub>EU4</sub> :80	Commission Delegated	SL <sub>EU5</sub> :	UNECE Regulation
	Tryond	TR <sub>TTIXEU4</sub> :	Regulation (EU) No 134/	TR <sub>TTIXEU5</sub> :	No 9
L7e-A	PI / CI / Hybrid	SL <sub>EU4</sub> :80	2014 Annex VIII / UNECE Regu-	SL <sub>EU5</sub> :	
	11,0114	TR <sub>TTIXEU4</sub> :	lation No 9	TR <sub>TTIXEU5</sub> :	
L7e-B	PI / CI / Hybrid	SL <sub>EU4</sub> :80		SL <sub>EU5</sub> :	
	,	TR <sub>TTIXEU4</sub> :		TR <sub>TTIXEU5</sub> :	
L7e-C	PI / CI / Hybrid	SL <sub>EU4</sub> :80		SL <sub>EU5</sub> :	
	J	TR <sub>TTIXEU4</sub>		TR <sub>TTIXEU5</sub> :	

2.2.1.10.12. Stationary sound level: ..... dB(A) at engine speed: ..... min<sup>-1</sup>

2.2.1.10.13. Replacement noise-abatement device(s) make(s) and type(s) (<sup>3</sup>): ......

2.2.1.10.14. Location of the type-approval number (add drawings, photographs) (3):

## **▼** <u>B</u>

# 2.2.1.11. Propulsion unit performance test results

2.2.1.11.1. Propulsion unit performance data to be provided to measure/ determine the maximum vehicle design speed (3)

2.2.1.11.1.1.	Details of hardware and software of test vehicle(s), fitted components and accessories referred to in Annex X to Commission Delegated Regulation (EU) No 134/2014, Any deviations by test vehicle(s) from data provided in information document, Annex I: yes/no (³) (4). If yes, please provide list with deviations relevant for measuring the maximum vehicle design speed and gear in which it was reached (³):
2.2.1.11.1.2.	Test mass in running order (3): mass plus rider/driver (4):
2.2.1.11.1.3.	Test fuel specifications (3):
2.2.1.11.1.4.	Powertrain lubricant specifications (3):
2.2.1.11.1.5.	Atmospheric pressure (3):kPa
2.2.1.11.1.6.	Relative humidity (3):%
2.2.1.11.1.7.	Ambient temperature (3): K
2.2.1.11.1.8.	Wind speed and direction on test track (3):km/h
2.2.1.11.1.9.	Test track condition (temperature, level of moisture etc.) (3):
2.2.1.11.1.10.	Maximum vehicle design speed measured and gear in which it is reached (3): km/h at min <sup>-1</sup> in gear no:
2.2.1.11.1.11.	Maximum vehicle design speed
2.2.1.11.1.12.	Exemption L3e-A3 and L4e-A3 vehicles; maximum vehicle design speed declared by manufacturer (³):
2.2.1.11.2.	Propulsion unit performance data to be provided to measure/ determine the torque and power of the propulsion on the engine dynamometer (3)
2.2.1.11.2.1.	Details of propulsion(s) hardware and software tested, test equipment and settings relevant for propulsion unit performance measurements on engine dynamometer tests (3):
2.2.1.11.2.1.1.	List of components and part numbers/markings relevant for propulsion unit performance measurement on engine dynamometer, referred to in Annex X to Commission Delegated Regulation (EU) No 134/2014 (3)
2.2.1.11.2.1.2.	Test fuel (3):
2.2.1.11.2.1.3.	Powertrain lubricant specifications (3):
2.2.1.11.2.1.4.	Atmospheric pressure (3):kPa
2.2.1.11.2.1.5.	Relative humidity (3):%
2.2.1.11.2.1.6.	Ambient temperature (3): K
2.2.1.11.2.1.7.	Correction factor for reference atmospheric conditions $\alpha 1$ (3):
2.2.1.11.2.1.8.	Correction factor for the efficiency of the transmission $\alpha^{2}$ (3):

2.2.1.11.2.1.9.	Engine cooling temperature (*).
2.2.1.11.2.1.10.	Oil temperature at measuring point (3): K
2.2.1.11.2.1.11.	Exhaust temperature (3): K
2.2.1.11.2.1.12.	The manufacturer shall indicate the propulsion unit performance test results below (3):
2.2.1.11.2.1.13.	Maximum permitted combustion engine/electric motor/propulsion (3) (4) rotation speed: min <sup>-1</sup>
2.2.1.11.2.1.14.	Maximum net power combustion engine (3): kW at min <sup>-1</sup> at A/F ratio:
2.2.1.11.2.1.15.	Maximum net torque combustion engine (3):
2.2.1.11.2.1.16.	Maximum continuous-rated power electric motor (³): kW at min <sup>-1</sup>
2.2.1.11.2.1.17.	Maximum continuous-rated torque electric motor (³): Nm at min-1
2.2.1.11.2.1.18.	Maximum current e-motor at maximum continuous-rated power (3):
2.2.1.11.2.1.19.	Maximum continuous total power for propulsion(s) (3): kW at min <sup>-1</sup> at A/F ratio:
2.2.1.11.2.1.20.	Maximum continuous total torque for propulsion(s) (3):
2.2.1.11.2.1.21.	Maximum peak power for propulsion(s) (³): kW at min <sup>-1</sup> at A/F ratio:
2.2.1.11.2.1.22.	Power/mass in running order ratio (³): kW/kg at min <sup>-1</sup> at A/F ratio:
2.2.1.11.2.1.23.	Specific fuel consumption, g/kWh at maximum net power and power (3):
2.2.1.11.2.1.24.	Propulsion unit performance sweep graphs of total power and torque vs. engine speed (1 200 rpm to propulsion speed governor rpm, step 400 rpm). Secondary variables: spark angle, A/F ratio and mass air-flow (measured or calculated) (3):
2.2.1.11.2.1.25.	Maximum speed of vehicle and gear in which it is reached
2.2.1.11.2.1.26.	Maximum declared vehicle speed:km/h) (only for subcategories without maximum vehicle speed limitation: L3e, L4e, L5e, L7e-A and L7e-B2) ( <sup>3</sup> )
2.2.2.	(B) Functional safety test reports
2.2.2.1.	Front and rear protective structures
2.2.2.1.1.	Description and justification of the relevant provisions against which the vehicles has been assessed (3):

2.2.2.2.	Driver-operated controls including identification of controls, tell-tales and indicators
2.2.2.2.1.	Detailed list of controls, tell-tales, tell-tales colours and indicators of the vehicle (3):
2.2.2.2.	Assessment of the visibility (3):
2.2.2.3.	Installation of lighting and light-signalling devices, including automatic light switching
2.2.3.1.	Specific test conditions (e.g. indicator-bulb malfunction) (3):
2.2.2.4.	Safety belt anchorages and safety belts
2.2.2.4.1.	Description and justification of the relevant provisions against which the vehicle has been assessed (3):
2.2.2.5.	Installation of tyres
2.2.2.5.1.	Maximum tyre envelope sizes applied for the clearance assessment (3):
2.2.2.6.	Vehicle occupant protection, including interior fittings and vehicle doors
2.2.2.6.1.	Values of radii measurement of interior projections in sufficient detail (3):
2.2.2.7.	Maximum continuous total power and/or maximum vehicle speed limitation by design
2.2.2.7.1.	Maximum vehicle speed and/or maximum continuous total power for vehicles equipped with PI/CI combustion engine limited by (3):
	(a) the properties, timing or presence of the spark igniting the fuel/air mixture in the cylinder(s): yes/no (³) (⁴)
	(b) the amount of air intake of the engine: yes/no (3) (4)
	(c) the amount of fuel intake of the engine: yes/no (3) (4)
	(d) the mechanically-controlled output rotation speed of the drive-train, such as clutch, transmission or final drive: yes/no (³) (4)
2.2.2.7.2.	Maximum vehicle speed and/or maximum power shall be limited by means of two or more of the following, for vehicles which are propelled by means of one or more electric motors, including pure and hybrid electric vehicles:
	(a) reduction of the maximum power output of one or more electric motors based on the vehicle or rotation speed as sensed internally to the electric motor: yes/no (3) (4)
	(b) reduction of the maximum power output of one or more electric motors based on the actual vehicle speed as sensed fully externally to the electric motor: yes/no (³) (4)

(c) physical vehicle speed limitation by means of internal or external components such as a maximum achievable revolution speed of an electric motor: yes/no (3) (4)

2.2.2.7.3. Maximum vehicle speed and/or maximum power shall be limited by means of two or more of the following, for vehicles which are propelled by other means than those referred to in 2.2.7.1. and 2.2.7.2. (3):

#### 2.2.3. (C) Vehicle construction test reports

## 2.2.3.1. Arrangements for type-approval procedures (3)

Delegated act reference	Annex No	Virtual and/or self-testing	Subject	Restrictions / Comments	Applied
Commission Delegated Regulation (EU) No 134/2014	IX	Self-testing	Testing procedures on maximum vehicle design speed	Only for subcategories L3e-A3, L4e-A3 and L5e and does not include any other propulsion unit performance testing.	yes/no
Commission Delegated Regulation (EU) No 3/2014	II	Self-testing	Audible warning devices	Installation only	yes/no
Commission Delegated Regulation (EU) No 3/2014	VIII	Self-testing	Driver-operated controls including identification of controls, tell-tales and indicators	Speedometer only	yes/no
Commission Delegated Regulation (EU) No 3/2014	IX	Virtual testing	Installation of lighting and light- signalling devices	Dimensions only	yes/no
Commission Delegated Regulation (EU) No 3/2014	Х	Virtual testing	Rearward visibility	Installation only; only according to UNECE Regu- lation No 81	yes/no
Commission Delegated Regulation (EU) No 3/2014	XIV	Virtual testing	Installation of tyres	Only where clearance exceeds 10 mm.	yes/no
Commission Delegated Regulation (EU) No 44/2014	XIV	Self & virtual testing	Registration plate space		yes/no

Delegated act reference	Annex No	Virtual and/or self-testing	Subject	Restrictions / Comments	Applied
Commission Delegated Regulation (EU) No 44/2014	XVI	Self-testing	Stands	Only point 2.5. stand retention systems.	yes/no
This Commission Implementing Regu- lation	VIII	Self-testing	Statutory plate and EU type-approval mark		yes/no

- 2.2.3.2. Requirements applying to coupling devices and attachments
- 2.2.3.2.1. Dynamic strength test (endurance test) coupling ball and/or head: passed/failed (3) (4)
- 2.2.3.2.2. Test results dynamic strength test (endurance test) (3): ...........
- 2.2.3.3. Requirements applying to external projections
- 2.2.3.3.1. Values of radii measurement of exterior projections in sufficient detail (3):
- 2.2.3.3.2. Description and justification of the relevant provisions against which the vehicle has been assessed (3):
- 2.2.3.4. On-board diagnostics (OBD) functional requirements (3)

2.2.3.4.1.

Component	Diagnostic trouble code	Monitoring strategy	Fault detection criteria	MI activation criteria	Secondary parameters	Precondi-tioning	Demonstration test	Default mode
Catalyst	P0420	Oxygen sensor 1 and 2 signals	Difference between sensor 1 and sensor 2 signals	3 <sup>rd</sup> cycle	Engine speed, engine load, A/F mode, catalyst temperature	Two Type I cycles	Type I	None

#### 2.2.3.5. **Stands**

2.2.3.5.1. Detailed description and assessment of the system used to prevent propulsion of the vehicle when the stand is in use:

## 3. Test results sheet

3.1. The test-results sheet appended to the EU type-approval certificate, as set out in Article 30(3) of Regulation (EU) No 168/2013 shall have the structure and contain the information established in point 2.2. of this Annex.

Explanatory notes relating to Annex VIII:

(Footnotes and explanations not to be stated on the test report or the test results sheet)

- (3) If applicable.
- (4) Delete where not applicable (no deletion required when more than one entry is applicable)
- (8) Indicate the upper and lower values for each variant.

#### ANNEX IX

Template and numbering system for the certificate for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems

#### LIST OF APPENDICES

Appendix Number	Appendix title
1	Model of the EU type-approval authorisation certificate for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems

#### 1. General requirements

- 1.1. The placing on the market of parts or equipment which may pose a serious risk to the correct functioning of systems that are essential for the safety of the vehicle or for its environmental performance shall be subject to authorisation in accordance with Article 51(3) of Regulation (EU) No 168/2013.
- 1.2. Such authorisation shall take the form of a certificate, a model of which is contained in Appendix 1, and the numbering system of which is described in point 2.
- 1.3. The certificate set out in point 1.2. shall include prescriptions for construction safety and functional safety, as well as for environmental protection and, where needed, for testing standards. They may be based on the Commission Delegated Regulations listed in Annex II to Regulation (EU) 168/2013, may be developed according to the relevant state of safety, environmental and testing technology, or, if this is an appropriate way of achieving the required safety or environmental objectives, may consist of a comparison of the part or equipment with the environmental or safety performance of the original vehicle, or of any of its parts, as appropriate.
- 1.4. This Annex shall not be applicable to a part or piece of equipment before it is listed in Annex X. For any entry or group of entries in Annex X, a reasonable transitional period shall be fixed to allow the manufacturer of the part or equipment to apply for and obtain an authorisation. At the same time a date may be fixed, where appropriate, to exclude parts and equipment designed for vehicles type- approved before that date from the application of this Annex.

#### 2. Numbering system

- 2.1. The number of the certificate for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems shall consist of a total of five sections as detailed below. The sections shall be separated by an asterisk ('\*').
- 2.1.1. Section 1: The lower-case letter 'e' followed by the distinguishing number of the Member State (given in point 2.1 of Annex VII) issuing the certificate.
- Section 2: The number of Regulation (EU) 168/2013: '168/2013' shall be indicated.

- 2.1.3. Section 3: The identification of the part or component, according to the list in Annex X.
  - for parts or equipment having a significant impact on the vehicle's construction safety and/or functional safety, this means the symbol 'I' followed by the '/'character and the correspondent 'Item No' from table 10-1 in Annex X. The 'Item No' shall have three digits and start from '001'.
  - for parts or equipment having a significant impact on the environmental performance of the vehicle, this means the symbol 'II' followed by the '/'character and the correspondent 'Item No' from table 10-2 in Annex X. The 'Item No' shall have three digits and start from '001'.
- 2.1.4. Section 4: Sequential number for the certificate.
  - a sequential number with leading zeros (as applicable), to denote the certificate number. The sequential number shall have three digits and start from '001'.
- 2.1.5. Section 5: Sequential number to denote the extension of the certificate.
  - a two-digit sequential number, with leading zero as applicable, starting from '00' for each certificate number issued.
- 2.2. Format of the numbering of a certificate (with fictive sequential numbers for explanation purposes).

Example of the number of a certificate issued by Bulgaria for parts or equipment integrated in a vehicle type-approved according to Regulation (EU) No 168/2013:

```
    e34*168/2013*II/002*148*00
    e34 = Bulgaria (section 1)
    168/2013 = Regulation (EU) 168/2013 (section 2)
    II/002 = Item 002 on the list of parts or equipment having a significant impact on the environmental performance of the vehicle (section 3)
    148 = certificate sequential number (section 4)
    00 = extension number (section 5)
```

Example of the number of a certificate issued by Austria for parts or equipment integrated in a vehicle type-approved according to Regulation (EU) No 168/2013, which has been extended once:

```
    e12*168/2013*I/034*225*01
    e12 = Austria (section 1)
    168/2013 = Regulation (EU) 168/2013 (section 2)
    I/034 = Item 034 on the list of parts or equipment having a significant impact on the vehicle's construction safety and/or functional safety (section 3)
    225 = certificate sequential number (section 4)
    01 = extension number (section 5)
```

#### Appendix 1

Model of the EU type-approval authorisation certificate for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems

## EU authorisation certificate

#### MODEL

Format: A4 (210 × 297 mm)

#### EU AUTHORISATION CERTIFICATE

Stamp of approval authority

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Commu	ncanon	COHCCHIII	uic

- authorisation certificate<sup>(1)</sup>
- extension of authorisation certificate<sup>(1)</sup>
- refusal of authorisation certificate<sup>(1)</sup>
- withdrawal of authorisation certificate<sup>(1)</sup>

for the placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of systems that are essential for the safety of the vehicle or for its environmental performance

#### SECTION I

Kind of part/equipment.
Part/equipment (1) numbers:
EU authorisation certificate number:
Reason for extension:
Name and address of manufacturer:
Name(s) and address(es) of manufacture plant(s):
Name and address of the manufacturer's representative (if any):
SECTION II
The part/equipment $(^1)$ is specifically intended for installation on the following vehicle(s):
Make (trade name of manufacturer):
Type(s) (2):
Variant(s) (²):
Version(s) (2):
SECTION III
Prescriptions for:
(a) vehicle construction safety (1):
(b) vehicle functional safety (1):

- (1) Delete where not applicable.
- (2) Indicate the alphanumeric code Type-Variant-Version or 'TVV' allocated to each type, variant and version as set out in point 2.3 of Part B of Annex I.
- (3) The Roman numeral of the relevant Annex to the Commission Delegated Regulation or multiple Roman numerals of the relevant Annexes to the same Commission Delegated
- (4) Indicate the latest amendment of the Commission Delegated Regulation according to the amendment applied for the EU type-approval.

## ANNEX X

List of parts or equipment which may pose a serious risk to the correct functioning of essential systems

I. Parts or equipment having a significant impact on the vehicle's construction safety and/or functional safety

Table 10-1

List of parts or equipment having a significant impact on vehicle safety

Item No	Item description	Performance requirement	Test procedure	Marking requirement	Packaging requirements
001	[]				
002					
003					

II. Parts or equipment having a significant impact on the environmental performance of the vehicle

*Table 10-2* 

List of parts or equipment having a significant impact on the environmental performance of the vehicle

Item No	Item	Performance	Test	Marking	Packaging
	description	requirement	procedure	requirement	requirements
001	[]				
002					
003					