

Commission Regulation (EU) 2017/2400 of 12 December 2017 implementing Regulation (EC) No 595/2009 of the European Parliament and of the Council as regards the determination of the CO₂ emissions and fuel consumption of heavy-duty vehicles and amending Directive 2007/46/EC of the European Parliament and of the Council and Commission Regulation (EU) No 582/2011 (Text with EEA relevance)

CHAPTER 1

GENERAL PROVISIONS

Article 1

Subject matter

This Regulation complements the legal framework for the type-approval of motor vehicles and engines with regard to emissions and vehicle repair and maintenance information established by Regulation (EU) No 582/2011 by laying down the rules for issuing licences to operate a simulation tool with a view to determining CO₂ emissions and fuel consumption of new vehicles to be sold, registered or put into service in the Union and for operating that simulation tool and declaring the CO₂ emissions and fuel consumption values thus determined.

Article 2

Scope

1 Subject to the second paragraph of Article 4, this Regulation shall apply to vehicles of category N2, as defined in Annex II to Directive 2007/46/EC, with a technically permissible maximum laden mass exceeding 7 500 kg and to all vehicles of category N3, as defined in that Annex.

[^{F12} In case of multi-stage type-approvals or individual approvals of vehicles referred to in paragraph 1, this Regulation shall apply only to base vehicles equipped at least with a chassis, engine, transmission, axles and tyres.]

3 This Regulation shall not apply to off-road vehicles, special purpose vehicles and off road special purpose vehicles as defined, respectively, in points 2.1., 2.2. and 2.3. of Part A of Annex II to Directive 2007/46/EC.

Textual Amendments

- F1** Substituted by [Commission Regulation \(EU\) 2019/318 of 19 February 2019 amending Regulation \(EU\) 2017/2400 and Directive 2007/46/EC of the European Parliament and of the Council as regards the determination of the CO₂ emissions and fuel consumption of heavy-duty vehicles \(Text with EEA relevance\)](#).

Changes to legislation: There are outstanding changes not yet made to Commission Regulation (EU) 2017/2400. Any changes that have already been made to the legislation appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes

Article 3

Definitions

For the purposes of this Regulation, the following definitions shall apply:

- (1) ‘CO₂ emissions and fuel consumption related properties’ means specific properties derived for a component, separate technical unit and system which determine the impact of the part on the CO₂ emissions and fuel consumption of a vehicle;
- (2) ‘input data’ means information on the CO₂ emissions and fuel consumption related properties of a component, separate technical unit or system which is used by the simulation tool for the purpose of determining CO₂ emissions and fuel consumption of a vehicle;
- (3) ‘input information’ means information relating to the characteristics of a vehicle which is used by the simulation tool for the purposes of determining their CO₂ emissions and fuel consumption of the vehicle and which is not part of an input data;
- (4) ‘manufacturer’ means the person or body who is responsible to the approval authority for all aspects of the certification process and for ensuring conformity of CO₂ emissions and fuel consumption related properties of components, separate technical units and systems. It is not essential that the person or body be directly involved in all stages of the construction of the component, separate technical unit or system which is the subject of the certification.
- (4a) [^{F2}‘vehicle manufacturer’ means a body or person responsible for issuing the manufacturer's records file and the customer information file pursuant to Article 9;]
- (5) ‘authorised entity’ means a national authority authorised by a Member State to request relevant information from the manufacturers and vehicle manufacturers on the CO₂ emissions and fuel consumption related properties of a specific component, specific separate technical unit or specific system and CO₂ emissions and fuel consumption of new vehicles respectively.
- (6) ‘transmission’ means a device consisting of at least of two shiftable gears, changing torque and speed with defined ratios;
- (7) [^{F1}‘torque converter’ means a hydrodynamic start-up component either as a separate component of the driveline or transmission with serial or parallel power flow that adapts speed between engine and wheel and provides torque multiplication;]
- (8) ‘other torque transferring component’ or ‘OTTC’ means a rotating component attached to the driveline which produces torque losses dependent on its own rotational speed;
- (9) ‘additional driveline component’ or ‘ADC’ means a rotating component of the driveline which transfers or distributes power to other driveline components and produces torque losses dependant on its own rotational speed;
- (10) ‘axle’ means a central shaft for a rotating wheel or gear as drive axle of a vehicle;
- (11) ‘air drag’ means characteristic of a vehicle configuration regarding aerodynamic force acting on the vehicle opposite to the direction of air flow and determined as a product of the drag coefficient and the cross sectional area for zero crosswind conditions;

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- (12) ‘auxiliaries’ means vehicle components including an engine fan, steering system, electric system, pneumatic system and air conditioning (AC) system whose CO₂ emissions and fuel consumption properties have been defined in Annex IX;
- (13) ‘component family’, ‘separate technical unit family’ or ‘system family’ means a manufacturer’s grouping of components, separate technical units or systems, respectively, which through their design have similar CO₂ emissions and fuel consumption related properties;
- (14) ‘parent component’, ‘parent separate technical unit’ or ‘parent system’ means a component, separate technical unit or system, respectively, selected from a component, separate technical unit or system family, respectively, in such a way that its CO₂ emissions and fuel consumption related properties will be the worst case for that component family, separate technical unit family or system family;
- (15) ‘^{F2}zero emission heavy-duty vehicle’ or ‘ZE-HDV’ means a heavy-duty vehicle without an internal combustion engine, or with an internal combustion engine that emits less than 1 g CO₂/kWh;
- (16) ‘vocational vehicle’ means a heavy-duty vehicle not intended for the delivery of goods and for which one of the following digits is used to supplement the bodywork codes, as listed in Appendix 2 to Annex II of Directive 2007/46/EC: 09, 10, 15, 16, 18, 19, 20, 23, 24, 25, 26, 27, 28, 31; or a tractor with a maximum speed not exceeding 79 km/h;
- (17) ‘rigid lorry’ means a lorry that is not designed or constructed for the towing of a semi-trailer;
- (18) ‘tractor’ means a tractor unit that is designed and constructed exclusively or principally to tow semi-trailers;
- (19) ‘sleeper cab’ means a type of cabin that has a compartment behind the driver’s seat intended to be used for sleeping;
- (20) ‘hybrid electric heavy-duty vehicle’ or ‘He-HDV’ is as defined in Article 3(15) of Directive 2007/46/EC;
- (21) ‘dual-fuel vehicle’ is as defined in Article 2(48) of Regulation (EU) No 582/2011.]

[^{F2}With regard to He-HDVs, Articles 5(3), 9(1) and 12(1) shall apply only to He-HDVs where the second highest maximum net power of all energy converters is less than 10 % of the highest maximum net power of all energy converters. Energy converters used only for the starting are in this respect not taken into consideration.]

Textual Amendments

- F1** Substituted by Commission Regulation (EU) 2019/318 of 19 February 2019 amending Regulation (EU) 2017/2400 and Directive 2007/46/EC of the European Parliament and of the Council as regards the determination of the CO₂ emissions and fuel consumption of heavy-duty vehicles (Text with EEA relevance).
- F2** Inserted by Commission Regulation (EU) 2019/318 of 19 February 2019 amending Regulation (EU) 2017/2400 and Directive 2007/46/EC of the European Parliament and of the Council as regards the determination of the CO₂ emissions and fuel consumption of heavy-duty vehicles (Text with EEA relevance).

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Article 4

Vehicle groups

For the purpose of this Regulation, motor vehicles shall be classified in vehicle groups in accordance with Table 1 in Annex I.

Articles 5 to 22 do not apply to motor vehicles of vehicle groups 0, 6, 7, 8, 13, 14, 15 and 17.

Article 5

Electronic tools

1 The Commission shall provide free of charge the following electronic tools in the form of downloadable and executable software:

- a a simulation tool;
- b pre-processing tools;
- c a hashing tool.

The Commission shall maintain the electronic tools and provide modifications and updates to those tools.

2 The Commission shall make the electronic tools referred to in paragraph 1 available through a publicly available dedicated electronic distribution platform.

[^{F13} The simulation tool shall be used for the purposes of determining CO₂ emissions and fuel consumption of new vehicles, or for the purposes of determining whether those vehicles are a ZE-HDVs, He-HDVs or dual-fuel vehicle. The simulation tool shall be designed to operate on the basis of input information as specified in Annex III, as well as input data referred to in Article 12(1).]

4 The pre-processing tools shall be used for the purpose of verification and compilation of the testing results and performing additional calculations relating to CO₂ emission and fuel consumption related properties of certain components, separate technical units or systems and converting them in a format used by the simulation tool. The pre-processing tools shall be used by the manufacturer after performing the tests referred to in point 4 of Annex V for engines and in point 3 of Annex VIII for air-drag.

[^{F15} The hashing tools shall be used for establishing an unequivocal association between the certified CO₂ emission and fuel consumption related properties of a component, separate technical unit or system and its certification document, as well as for establishing an unequivocal association between a vehicle and its manufacturer's records file and customer information file as referred to in Annex IV.]

Textual Amendments

- F1** Substituted by [Commission Regulation \(EU\) 2019/318 of 19 February 2019 amending Regulation \(EU\) 2017/2400 and Directive 2007/46/EC of the European Parliament and of the Council as regards the determination of the CO₂ emissions and fuel consumption of heavy-duty vehicles \(Text with EEA relevance\)](#).

Changes to legislation:

There are outstanding changes not yet made to Commission Regulation (EU) 2017/2400. Any changes that have already been made to the legislation appear in the content and are referenced with annotations.

[View outstanding changes](#)

Changes and effects yet to be applied to the whole legislation item and associated provisions

- Signature words omitted by [S.I. 2022/1273 reg. 82\(18\)](#)
- Annex 5 Appendix 6 point 1.3 substituted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(i\)](#)
- Annex 5 Appendix 6 point 1.4.1 image substituted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(iii\)\(aa\)](#)
- Annex 5 Appendix 6 point 1.5.1 image substituted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(iv\)\(aa\)](#)
- Annex 5 Appendix 4 point 7.4 word substituted by [S.I. 2022/1273 reg. 83\(4\)\(a\)](#)
- Annex 5 Appendix 6 point 2.1 word substituted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(v\)](#)
- Annex 5 Appendix 6 point 1.4.1 words omitted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(iii\)\(bb\)](#)
- Annex 5 Appendix 6 point 1.5.1 words omitted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(iv\)\(bb\)](#)
- Annex 5 Appendix 6 point 1.4 words substituted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(ii\)](#)
- Annex 5 Appendix 6 point 2.1 table words substituted by [S.I. 2022/1273 reg. 83\(4\)\(b\)\(vi\)](#)
- Annex 10 Appendix 4 point 1.1 word substituted by [S.I. 2022/1273 reg. 83\(8\)\(d\)\(i\)](#)
- Annex 10 Appendix 1 words substituted by [S.I. 2022/1273 reg. 83\(8\)\(c\)](#)
- Annex 10 Appendix 4 point 1.1 table words substituted by [S.I. 2022/1273 reg. 83\(8\)\(d\)\(ii\)](#)
- Annex 7 Appendix 5 point 1.3 substituted by [S.I. 2022/1273 reg. 83\(6\)\(c\)\(i\)](#)
- Annex 7 Appendix 5 point 1.4.1 image substituted by [S.I. 2022/1273 reg. 83\(6\)\(c\)\(iii\)\(aa\)](#)
- Annex 7 Appendix 1s. 1 point 000.5 word substituted by [S.I. 2022/1273 reg. 83\(6\)\(b\)\(ii\)](#)
- Annex 7 Appendix 1 words inserted by [S.I. 2022/1273 reg. 83\(6\)\(b\)\(i\)\(aa\)](#)
- Annex 7 Appendix 1 words omitted by [S.I. 2022/1273 reg. 83\(6\)\(b\)\(i\)\(bb\)](#)
- Annex 7 Appendix 5 point 1.4.1 words omitted by [S.I. 2022/1273 reg. 83\(6\)\(c\)\(iii\)\(bb\)](#)
- Annex 7 Appendix 5 point 1.4 words substituted by [S.I. 2022/1273 reg. 83\(6\)\(c\)\(ii\)](#)
- Annex 7 Appendix 5 point 2.1 words substituted by [S.I. 2022/1273 reg. 83\(6\)\(c\)\(iv\)](#)
- Annex 7 Appendix 5 point 2.1 table words substituted by [S.I. 2022/1273 reg. 83\(6\)\(c\)\(v\)](#)
- Annex 8 Appendix 8 point 1.3 substituted by [S.I. 2022/1273 reg. 83\(7\)\(d\)\(i\)](#)
- Annex 8 Appendix 8 point 1.4.1 image substituted by [S.I. 2022/1273 reg. 83\(7\)\(d\)\(iii\)\(aa\)](#)
- Annex 8 Appendix 4 table 11 word omitted by [S.I. 2022/1273 reg. 83\(7\)\(c\)\(i\)](#)
- Annex 8 Appendix 4 table 13 word omitted by [S.I. 2022/1273 reg. 83\(7\)\(c\)\(i\)](#)
- Annex 8 Appendix 4 table 15 word omitted by [S.I. 2022/1273 reg. 83\(7\)\(c\)\(ii\)\(aa\)](#)
- Annex 8 Appendix 4 table 15 word omitted by [S.I. 2022/1273 reg. 83\(7\)\(c\)\(ii\)\(bb\)](#)
- Annex 8 Appendix 1s. 1 point 000.6 word substituted by [S.I. 2022/1273 reg. 83\(7\)\(b\)\(ii\)](#)
- Annex 8 Appendix 8 point 2.1 word substituted by [S.I. 2022/1273 reg. 83\(7\)\(d\)\(iv\)](#)
- Annex 8 Appendix 1 words inserted by [S.I. 2022/1273 reg. 83\(7\)\(b\)\(i\)\(aa\)](#)
- Annex 8 Appendix 1 words omitted by [S.I. 2022/1273 reg. 83\(7\)\(b\)\(i\)\(bb\)](#)
- Annex 8 Appendix 8 point 1.4.1 words omitted by [S.I. 2022/1273 reg. 83\(7\)\(d\)\(iii\)\(bb\)](#)
- Annex 8 Appendix 8 point 1.4 words substituted by [S.I. 2022/1273 reg. 83\(7\)\(d\)\(ii\)](#)
- Annex 8 Appendix 8 point 2.1 table words substituted by [S.I. 2022/1273 reg. 83\(7\)\(d\)\(v\)](#)

- Annex 2 Appendix 2s. 2 point 2 omitted by S.I. 2022/1273 reg. 83(2)(b)(ii)
- Annex 2 Appendix 2 words inserted by S.I. 2022/1273 reg. 83(2)(b)(i)
- Annex 6 Appendix 7 point 1.3 substituted by S.I. 2022/1273 reg. 83(5)(e)(i)
- Annex 6 Appendix 7 point 1.5 image substituted by S.I. 2022/1273 reg. 83(5)(e)(iii)(aa)
- Annex 6 Appendix 7 point 2.1 word substituted by S.I. 2022/1273 reg. 83(5)(e)(iv)
- Annex 6 Appendix 1 words omitted by S.I. 2022/1273 reg. 83(5)(c)
- Annex 6 Appendix 7 point 1.5 words omitted by S.I. 2022/1273 reg. 83(5)(e)(iii)(bb)
- Annex 6 Appendix 2 point 8 words substituted by S.I. 2022/1273 reg. 83(5)(d)
- Annex 6 Appendix 3 point 8 words substituted by S.I. 2022/1273 reg. 83(5)(d)
- Annex 6 Appendix 4 point 8 words substituted by S.I. 2022/1273 reg. 83(5)(d)
- Annex 6 Appendix 5 point 8 words substituted by S.I. 2022/1273 reg. 83(5)(d)
- Annex 6 Appendix 7 point 1.4 words substituted by S.I. 2022/1273 reg. 83(5)(e)(ii)
- Annex 6 Appendix 7 point 2.1 table words substituted by S.I. 2022/1273 reg. 83(5)(e)(v)
- Art. 3(5) omitted by S.I. 2022/1273 reg. 82(4)(a)
- Art. 3(16) words substituted by S.I. 2022/1273 reg. 82(4)(b)
- Art. 3(20) words substituted by S.I. 2022/1273 reg. 82(4)(c)
- Art. 10(1a) inserted by S.I. 2022/1273 reg. 82(8)(b)
- Annex 10a para. 3(f) words inserted by S.I. 2022/1273 reg. 83(9)(a)
- Annex 10a para. 3(f) table words substituted by S.I. 2022/1273 reg. 83(9)(b)(c)
- Art. 12(8) inserted by S.I. 2022/1273 reg. 82(10)