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## ANNEX I

### Rules on data to be monitored and reported

#### PART A: DATA TO BE MONITORED AND REPORTED BY MEMBER STATES

- (a) vehicle identification numbers of all new heavy-duty vehicles as referred to in points (a) and (b) of the second paragraph of Article 2 that are registered in the Member State territory;
- (b) manufacturer name;
- (c) make (trade name of manufacturer);
- (d) [<sup>F1</sup>for vehicles registered until 31 December 2019 where available, and for vehicles registered from 1 January 2020 in all cases, the code for the bodywork as specified in entry 38 of the certificate of conformity, including, where applicable, the supplementing digits referred to in Appendix 2 to Annex II to Directive 2007/46/EC;]
- (e) in the case of the heavy-duty vehicles referred to in point (a) of the second paragraph of Article 2, the information on the powerplant specified in entries 23, 23.1 and 26 of the certificate of conformity[<sup>F1</sup>;]
- (f) [<sup>F2</sup>for vehicles registered from 1 January 2020, the maximum speed of the vehicle as specified in entry 29 of the certificate of conformity[<sup>F3</sup>;]]
- (g) [<sup>F4</sup>for vehicles registered until 30 June 2021 where available and for vehicles registered from 1 July 2021 in all cases, the stage of completion, as indicated in the chosen model of the certificate of conformity in accordance with point 2 of Annex IX to Directive 2007/46/EC;
- (h) the vehicle category as specified in entry 0.4 of the certificate of conformity;
- (i) for vehicles registered until 31 December 2020 where available and for vehicles registered from 1 January 2021 in all cases, the number of axles, as specified in entry 1 of the certificate of conformity;
- (j) the technically permissible maximum laden mass, as specified in entry 16.1 of the certificate of conformity;
- (k) for vehicles registered until 31 December 2021 where available and for vehicles registered from 1 January 2022 in all cases, the imprint of the cryptographic hash of the manufacturer's records file as specified in entry 49.1 of the certificate of conformity; for vehicles registered until 30 June 2025 Member States may report only the first 8 characters of the cryptographic hash;
- (l) for vehicles registered until 30 June 2021 where available and for vehicles registered from 1 July 2021 in all cases, the specific CO<sub>2</sub> emissions as specified in entry 49.5 of the certificate of conformity;
- (m) for vehicles registered until 30 June 2021 where available and for vehicles registered from 1 July 2021 in all cases, the average payload value as specified in entry 49.6 of the certificate of conformity;
- (n) the date of registration.]

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### Textual Amendments

- F1** Substituted by Commission Delegated Regulation (EU) 2019/888 of 13 March 2019 amending Annex I to Regulation (EU) 2018/956 of the European Parliament and of the Council as regards the data on new heavy-duty vehicles to be monitored and reported by Member States and by manufacturers (Text with EEA relevance).
- F2** Inserted by Commission Delegated Regulation (EU) 2019/888 of 13 March 2019 amending Annex I to Regulation (EU) 2018/956 of the European Parliament and of the Council as regards the data on new heavy-duty vehicles to be monitored and reported by Member States and by manufacturers (Text with EEA relevance).
- F3** Substituted by Commission Delegated Regulation (EU) 2020/1589 of 22 July 2020 amending Annex I to Regulation (EU) 2018/956 of the European Parliament and of the Council as regards the data on new heavy-duty vehicles to be monitored and reported by Member States and by manufacturers (Text with EEA relevance).
- F4** Inserted by Commission Delegated Regulation (EU) 2020/1589 of 22 July 2020 amending Annex I to Regulation (EU) 2018/956 of the European Parliament and of the Council as regards the data on new heavy-duty vehicles to be monitored and reported by Member States and by manufacturers (Text with EEA relevance).

PART 1. Starting years for the monitoring and reporting of data for the heavy-duty vehicle  
B: categories set out in points (a) and (b) of the second paragraph of Article 2:

DATA TO BE MONITORED AND REPORTED BY MANUFACTURERS OF HEAVY-DUTY VEHICLES	Category of heavy-duty vehicles	Vehicle group in vehicle category (as referred to in Annex I to Regulation (EU) 2017/2400)	Starting yearMonitoring	Starting yearReporting
	N <sub>1</sub>	—	—	—
	N <sub>2</sub>	1 and 2	2020	2021
	N <sub>3</sub>	3	2020	2021
		4, 5, 9 and 10	2019	2020
		11, 12 and 16	2020	2021
	M <sub>1</sub>	—	—	—
	M <sub>2</sub>	—	—	—
	M <sub>3</sub>	—	—	—
	O <sub>3</sub>	—	—	—
	O <sub>4</sub>	—	—	—

2. Data to be monitored and reported:

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No	Monitoring parameters	Source Part I of Annex IV to Regulation (EU) 2017/2400, unless otherwise specified	Description
1	Vehicle identification number (VIN)	1.1.3	Vehicle and component identification
2	Engine certification number	1.2.2	
3	CdxA <sup>a</sup> certification number (if applicable)	1.8.3	
4	Transmission certification number	1.3.2	
[ <sup>F1</sup> 5	Axle certification number	1.7.2	Axle specifications]
6	Tyre certification number, axle 1	1.9.2	Vehicle and component identification
7	Tyre certification number, axle 2	1.9.6	
8	Tyre certification number, axle 3	1.9.10	
9	Tyre certification number, axle 4	1.9.14	
10	Vehicle category (N <sub>1</sub> , N <sub>2</sub> , N <sub>3</sub> , M <sub>1</sub> , M <sub>2</sub> , M <sub>3</sub> )	1.1.4	Vehicle classification
11	Axle configuration	1.1.5	
12	Maximum gross vehicle weight (t)	1.1.6	

a Air drag.

b Synchronised Manual Transmission.

c Automated Manual Transmission or Automatic Mechanically-engaged Transmission.

d Automatic Powershifting Transmission.

e 'Case S' means the serial arrangement of a torque converter and the connected mechanical parts of the transmission.

f 'Case P' means the parallel arrangement of a torque converter and the connected mechanical parts of the transmission (e.g. in power split installations).

g European Modular System (EMS) in accordance with Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic (OJ L 235, 17.9.1996, p. 59).

h World Harmonized Transient Driving Cycle.

i Worldwide Harmonised Steady state Cycle.

j [<sup>F2</sup>Data entries 85, 86, 87, 90, 93, 95 and 96 shall not be made publicly available in the Central Register on heavy-duty vehicles.]

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13	Vehicle group	1.1.7	
14	Name and address of manufacturer	1.1.1	Vehicle and chassis specification
[ <sup>F1</sup> 15	Make (trade name of manufacturer)	—	Vehicle specifications]
16	Corrected actual curb mass (kg)	1.1.8	
17	Engine rated power (kW)	1.2.3	Main engine specifications
18	Engine idling speed (1/min)	1.2.4	
19	Engine rated speed (1/min)	1.2.5	
20	Engine capacity (ltr)	1.2.6	
[ <sup>F1</sup> 21	Fuel type (Diesel CI/ CNG PI/LNG PI ...)	1.2.7	Engine specifications]
22	Certification option used for generation of CdxA (standard values/measurement)	1.8.2	Aerodynamics
23	CdxA value (air drag value)	1.8.4	
[ <sup>F3</sup> 24	Name and address of transmission manufacturer	Point 0.4 of the model of a certificate of a component, separate technical unit or system of Appendix 1 to Annex VI to Regulation (EU) 2017/2400	Main transmission specifications

**a** Air drag.

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25	Make (trade name of transmission manufacturer)	Point 0.1 of the model of a certificate of a component, separate technical unit or system of Appendix 1 to Annex VI to Regulation (EU) 2017/2400]	
26	Certification option used for the generation of simulation tool loss maps (Option 1/ Option 2/Option 3/ Standard values)	1.3.3	
27	Transmission type (SMT <sup>b</sup> , AMT <sup>c</sup> , APT <sup>d</sup> -S <sup>e</sup> , APT-P <sup>f</sup> )	1.3.4	
28	Number of gears	1.3.5	
29	Transmission ratio final gear	1.3.6	
30	Retarder type	1.3.7	
31	Power take off (yes/no)	1.3.8	
[ <sup>F3</sup> 32	Name and address of axle manufacturer	Point 0.4 of the model of a certificate of a component, separate technical unit or system of Appendix 1 to Annex VII to Regulation (EU) 2017/2400	Main axle specifications

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33	Make (trade name of axle manufacturer)	Point 0.1 of the model of a certificate of a component, separate technical unit or system of Appendix 1 to Annex VII to Regulation (EU) 2017/2400]	
34	Certification option used for the generation of a simulation tool loss map (standard values/measurement)	1.7.3	
35	Axle type (e.g. standard single driven axle)	1.7.4	
36	Axle ratio	1.7.5	
37	Certification option used for the generation of a simulation tool loss map (standard values/measurement)	1.6.3	Angle drive specifications
38	Angle drive ratio	1.6.4	
[ <sup>F3</sup> 39	Name and address of tyre manufacturer	Point 1 of the model of a certificate of a component, separate technical unit or system of Appendix 1 to Annex X to Regulation (EU) 2017/2400	Main tyre specifications

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40	Make (trade name of tyre manufacturer)	Point 3 of the model of a certificate of a component, separate technical unit or system of Appendix 1 to Annex X to Regulation (EU) 2017/2400]
41	Tyre dimension axle 1	1.9.1
42	Specific rolling resistance coefficient (RRC) of all tyres on axle 1	1.9.3
43	Tyre dimension axle 2	1.9.4
44	Twin axle (yes/no) axle 2	1.9.5
45	Specific RRC of all tyres on axle 2	1.9.7
46	Tyre dimension axle 3	1.9.8
47	Twin axle (yes/no) axle 3	1.9.9
48	Specific RRC of all tyres on axle 3	1.9.11
49	Tyre dimension axle 4	1.9.12
50	Twin axle (yes/no) axle 4	1.9.13
<b>a</b>	Air drag.	
<b>b</b>	Synchronised Manual Transmission.	
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<b>e</b>	‘Case S’ means the serial arrangement of a torque converter and the connected mechanical parts of the transmission.	
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<b>h</b>	World Harmonized Transient Driving Cycle.	
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51	Specific RRC of all tyres on axle 4	1.9.15	
52	Engine cooling fan technology	1.10.1	Main auxiliary specifications
53	Steering pump technology	1.10.2	
54	Electric system technology	1.10.3	
55	Pneumatic system technology	1.10.4	
56	Mission profile (long haul, long haul (EMS <sup>a</sup> ), regional, regional (EMS), urban, municipal, construction)	2.1.1	Simulation parameters (for each mission profile/load/fuel combination)
57	Load (as defined in the simulation tool) (kg)	2.1.2	
58	Fuel type (diesel/petrol/LPG/CNG/...)	2.1.3	
59	Total vehicle mass in simulation (kg)	2.1.4	
60	Average speed (km/h)	2.2.1	Vehicle driving performance (for each mission profile/load/fuel combination)
61	Minimum instantaneous speed (km/h)	2.2.2	
62	Maximum instantaneous speed (km/h)	2.2.3	

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63	Maximum deceleration (m/s <sup>2</sup> )	2.2.4	
64	Maximum acceleration (m/s <sup>2</sup> )	2.2.5	
65	Full load percentage on driving time	2.2.6	
66	Total number of gear shifts	2.2.7	
67	Total driven distance (km)	2.2.8	
68	CO <sub>2</sub> emissions (expressed in g/km, g/t-km, g/p-km, g/m <sup>3</sup> -km)	2.3.13-2.3.16	CO <sub>2</sub> emissions and fuel consumption (for each mission profile/load/fuel combination)
69	Fuel consumption (expressed in g/km, g/t-km, g/p-km, g/m <sup>3</sup> -km, l/100km, l/t-km, l/p-km, l/m <sup>3</sup> -km, MJ/km, MJ/t-km, MJ/p-km, MJ/m <sup>3</sup> -km)	2.3.1-2.3.12	
70	Simulation tool version (X.X.X.)	3.1.1	Software and user information
71	Date and time of the simulation	3.1.2	
72	Number of licence to operate the simulation tool	—	

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[ <sup>F1</sup> 73	Cryptographic hash of the manufacturer's records file	3.1.4	Software information]
74	Advanced CO <sub>2</sub> reducing technologies	—	Vehicle CO <sub>2</sub> reducing technologies
75	CO <sub>2</sub> mass emission of the engine over WHTC <sup>h</sup> (g/kWh)	Point 1.4.2 of the addendum to Appendix 5, or point 1.4.2 of the addendum to Appendix 7, to Annex I to Regulation (EU) No 582/2011, whichever is applicable	Engine CO <sub>2</sub> emission and specific fuel consumption
76	Fuel consumption of the engine over WHTC (g/kWh)	Point 1.4.2 of the addendum to Appendix 5, or point 1.4.2 of the addendum to Appendix 7, to Annex I to Regulation (EU) No 582/2011, whichever is applicable	
77	CO <sub>2</sub> mass emission of the engine over WHSC <sup>i</sup> (g/kWh)	Point 1.4.1 of the addendum to Appendix 5, or point 1.4.1 of the addendum to Appendix 7, to Annex I to Regulation (EU) No	

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		582/2011, whichever is applicable	
78	Fuel consumption of the engine over WHSC (g/kWh)	Point 1.4.1 of the addendum to Appendix 5, or point 1.4.1 of the addendum to Appendix 7, to Annex I to Regulation (EU) No 582/2011, whichever is applicable	
[ <sup>F2</sup> 79	Vehicle model	1.1.2	Vehicle specifications
80	Vocational vehicle (yes/no)	1.1.9	
81	Zero emission heavy-duty vehicle (yes/no)	1.1.10	
82	Hybrid electric heavy-duty vehicle (yes/no)	1.1.11	
83	Dual-fuel vehicle (yes/no)	1.1.12	
84	Sleeper cab (yes/no)	1.11.13	
85	Engine model <sup>i</sup>	1.2.1	Engine specifications
86	Transmission model <sup>j</sup>	1.3.1	Transmission specifications
87	Retarder model <sup>j</sup>	1.4.1	Retarder specifications
88	Retarder certification number	1.4.2	

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89	Certification option used for generation of a loss map (standard values/measurement)	1.4.3	
90	Torque converter model <sup>i</sup>	1.5.1	Torque converter specifications
91	Torque converter certification number	1.5.2	
92	Certification option used for generation of a loss map (standard values/measurement)	1.5.3	
93	Angle drive model <sup>i</sup>	1.6.1	Angle drive specifications
94	Angle drive certification number	1.6.2	
95	Axle model <sup>i</sup>	1.7.1	Axle specifications
96	Air drag model <sup>i</sup>	1.8.1	Aerodynamics
97	Engine stop-start during vehicle stops (yes/no)	1.12.1	Advanced driver assistance systems (ADAS)
98	Eco-roll without engine stop-start (yes/no)	1.12.2	
99	Eco-roll with engine stop-start (yes/no)	1.12.3	
100	Predictive cruise control (yes/no)	1.12.4]	
[ <sup>F4</sup> 101	For vehicles with a date of simulation as of 1 July 2020,	Point 1.2.1. of addendum to Appendix 5, 6 or	Engine specifications]

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	the type-approval number of the engine	7 to Annex I to Regulation (EU) No 582/2011, whichever is applicable
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PART For the purpose of making publicly available the CdxA value specified in data entry C: AIR 23 in accordance with Article 6, the Commission shall use the ranges defined in the DRAG following table containing the corresponding range for each CdxA value:

VALUE  
 (CDXA)  
 RANGES  
 FOR  
 THE  
 PURPOSE  
 OF  
 PUBLICATION  
 IN  
 ACCORDANCE  
 WITH  
 ARTICLE  
 6

Range	CdxA value [m <sup>2</sup> ]	
	Min CdxA (CdxA ≥ min CdxA)	Max CdxA (CdxA < MaxCdxA)
A1	0,0	3,0
A2	3,0	3,15
A3	3,15	3,31
A4	3,31	3,48
A5	3,48	3,65
A6	3,65	3,83
A7	3,83	4,02

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**Changes to legislation:** There are outstanding changes not yet made to Regulation (EU) 2018/956 of the European Parliament and of the Council. 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

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A8	4,02	4,22
A9	4,22	4,43
A10	4,43	4,65
A11	4,65	4,88
A12	4,88	5,12
A13	5,12	5,38
A14	5,38	5,65
A15	5,65	5,93
A16	5,93	6,23
A17	6,23	6,54
A18	6,54	6,87
A19	6,87	7,21
A20	7,21	7,57
A21	7,57	7,95
A22	7,95	8,35
A23	8,35	8,77
A24	8,77	9,21

### Changes to legislation:

There are outstanding changes not yet made to Regulation (EU) 2018/956 of the European Parliament and of the Council. Any changes that have already been made to the legislation appear in the content and are referenced with annotations.

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

- Signature words omitted by [S.I. 2019/846 reg. 20](#)
- Annex 1 Pt. B footnote g words inserted by [S.I. 2022/1361 reg. 15\(7\)\(b\)\(vi\)](#)
- Annex 1 Pt. A heading words substituted by [S.I. 2019/846 reg. 21\(2\)\(a\)](#)
- Annex 1 Pt. A point (a) words substituted by [S.I. 2019/846 reg. 21\(2\)\(b\)](#)
- Annex 1 Pt. C words substituted by [S.I. 2019/846 reg. 21\(3\)](#)
- Annex 1 Pt. A point (d) words substituted by [S.I. 2022/1361 reg. 15\(6\)\(a\)](#)
- Annex 1 Pt. A point (g) words substituted by [S.I. 2022/1361 reg. 15\(6\)\(b\)](#)
- Annex 1 Pt. A point (k) words substituted by [S.I. 2022/1361 reg. 15\(6\)\(c\)](#)
- Annex 1 Pt. B Table 1 words inserted by [S.I. 2022/1361 reg. 15\(7\)\(a\)](#)
- Annex 1 Pt. B Table 2 words inserted by [S.I. 2022/1361 reg. 15\(7\)\(b\)\(i\)](#)
- Annex 1 Pt. B Table 2 words inserted by [S.I. 2022/1361 reg. 15\(7\)\(b\)\(ii\)](#)
- Annex 1 Pt. B Table 2 words inserted by [S.I. 2022/1361 reg. 15\(7\)\(b\)\(iii\)](#)
- Annex 1 Pt. B Table 2 words inserted by [S.I. 2022/1361 reg. 15\(7\)\(b\)\(iv\)](#)
- Annex 1 Pt. B Table 2 words inserted by [S.I. 2022/1361 reg. 15\(7\)\(b\)\(v\)](#)
- Art. 2(a) words inserted by [S.I. 2022/1361 reg. 15\(2\)](#)
- Art. 3(a) words inserted by [S.I. 2022/1361 reg. 15\(3\)\(a\)](#)
- Art. 3(c) inserted by [S.I. 2022/1361 reg. 15\(3\)\(b\)](#)
- Art. 5(3)(4) inserted by [S.I. 2019/846 reg. 8\(3\)](#) (This amendment not applied to legislation.gov.uk. Reg. 8 substituted on (2.12.2020) by [S.I. 2020/1402, regs. 1\(2\), 22\)](#)
- Art. 6A inserted by [S.I. 2019/846 reg. 10](#)
- Art. 6A(2) words substituted in earlier amending provision [S.I. 2019/846, reg. 10](#) by [S.I. 2020/1402 reg. 23\(2\)\(a\)](#)
- Art. 6A(3) words omitted in earlier amending provision [S.I. 2019/846, reg. 10](#) by [S.I. 2020/1402 reg. 23\(2\)\(b\)](#)
- Art. 7(2)(3) substituted for Art. 7(2) by [S.I. 2019/846 reg. 11\(3\)](#)
- Art. 9(1)(a) words inserted by [S.I. 2022/1361 reg. 15\(5\)](#)
- Art. 9(1)(a) words substituted by [S.I. 2019/846 reg. 13\(2\)\(a\)\(ii\)](#)
- Art. 9(3)(a) words omitted by [S.I. 2019/846 reg. 13\(4\)\(b\)](#)
- Art. 9(3)(b) word substituted by [S.I. 2019/846 reg. 13\(4\)\(c\)\(iii\)](#)
- Art. 9(3)(b) words omitted by [S.I. 2019/846 reg. 13\(4\)\(c\)\(ii\)](#)
- Art. 9(3)(b) words substituted by [S.I. 2019/846 reg. 13\(4\)\(c\)\(i\)](#)
- Art. 11(1)(d) omitted by [S.I. 2019/846 reg. 15\(3\)\(b\)](#)
- Art. 11A inserted by [S.I. 2019/846 reg. 16](#)