COMMISSION IMPLEMENTING REGULATION (EU) 2018/986

of 3 April 2018

amending Implementing Regulation (EU) 2015/504 as regards the adaptation of the administrative provisions for the approval and market surveillance of agricultural and forestry vehicles to Stage V emission limits

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 167/2013 of the European Parliament and of the Council of 5 February 2013 on the approval and market surveillance of agricultural or forestry vehicles ([1]), and in particular Article 22(4), paragraphs 2, 3 and 6 of Article 25, Article 27(1), Article 33(2) and Article 34(3) thereof,

Whereas:

(1) Commission Implementing Regulation (EU) 2015/504 ([2]) lays down, inter alia, the templates for certain documents to be drawn up in the context of the approval and market surveillance of agricultural and forestry vehicles.

(2) Regulation (EU) 2016/1628 of the European Parliament and of the Council ([3]) repeals Directive 97/68/EC of the European Parliament and of the Council ([4]) and introduces new gaseous and particulate pollutant emission limits (Stage V) for internal combustion engines for non-road mobile machinery.

(3) In accordance with Article 19 of Regulation (EU) No 167/2013, the Stage V emission limits set out in Annex II to Regulation (EU) 2016/1628 will also apply to agricultural and forestry vehicles. The application of those limits is deferred in accordance with the timetable set out in Annex III to Regulation (EU) 2016/1628.

(4) It is, therefore, necessary to amend the templates set out in Implementing Regulation (EU) 2015/504 in order to adapt those templates and align them with those set out in Commission Implementing Regulation (EU) 2017/656 ([5]).

(5) For the purposes of refining the administrative requirements, additional minor amendments to Implementing Regulation (EU) 2015/504 should be made to allow for the approval of electrical/electronic sub-assemblies as a component and to require more comprehensive information for the purposes of the type-approval of the transmission and the braking devices for towed vehicles.

(6) The measures provided for in this Regulation are in accordance with the opinion of the committee referred to in Article 69(1) of Regulation (EU) No 167/2013,

([1]) OJ L 60, 2.3.2013, p. 1.

([2]) Commission Implementing Regulation (EU) 2015/504 of 11 March 2015 implementing Regulation (EU) No 167/2013 of the European Parliament and of the Council with regard to the administrative requirements for the approval and market surveillance of agricultural and forestry vehicles (OJ L 85, 28.3.2015, p. 1).

([3]) Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013 and amending and repealing Directive 97/68/EC (OJ L 252, 16.9.2016, p. 53).

([4]) Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (OJ L 59, 27.2.1998, p. 1).

([5]) Commission Implementing Regulation (EU) 2017/656 of 19 December 2016 laying down the administrative requirements relating to emission limits and type-approval of internal combustion engines for non-road mobile machinery in accordance with Regulation (EU) 2016/1628 of the European Parliament and of the Council (OJ L 102, 13.4.2017, p. 364).

HAS ADOPTED THIS REGULATION:

Article 1

Implementing Regulation (EU) 2015/504 is amended as follows:

(1) The following Article 12a is inserted:

'*Article 12a*

Transitional provisions in respect of engines

With respect to engines type-approved before 1 January 2018, or before 1 January 2019 in the case of engines of sub-categories NRE-v-5 and NRE-c-5, the following provisions of this Regulation, in its version applicable on 6 August 2018, shall continue to apply:

— Annex I, Part A;

— Annex I, Part B, point 4.2.;

— Annex I, Part B, point 5, entries 2.2.2., 2.5. to 2.5.4.2., 5.2. to 5.5. and 6. to 8.22.4.2.;

— Annex I, Appendices 1 to 9;

— Annex I, Appendix 10, entry 2.2.2.;

— Annex I, Appendices 11 to 14;

— Annex I, Appendix 15, entry 2.2.2.;

— Annex I, Appendices 16 to 23;

— Annex I, explanatory notes relating to the information document (6), (7), (9), (12), (24), (26), (29), (39), (40), (49) and (56);

— Annex II, point 2.1.1.;

— Annex II, explanatory note relating to Annex II (4);

— Annex III, Appendix 1, Model 1 of Section 2, the entries under the heading 'General powertrain characteristics';

— Annex III, Appendix 1, Model 1 of Section 2, the entries under the heading 'Engine';

— Annex III, Appendix 1, Model 1 of Section 2, the text under the heading 'Results of exhaust emission tests (inclusive of Deterioration Factor)', the second and fourth indents of the first paragraph;

— Annex III, Appendix 1, Model 1 of Section 2, the text under the heading 'Results of exhaust emission tests (inclusive of Deterioration Factor)', the table;

— Annex III, Appendix 1, explanatory notes relating to Appendix 1, with the exception of explanatory note (32);

— Annex IV;

— Annex V, Appendix 2, explanatory notes relating to Appendix 2;

— Annex V, Appendix 4;

— Annex V, Appendix 5;

— Annex VII, Appendix 1, with the exception of point 1. and the first indent of the text under point 2.;

— Annex VIII, with the exception of point 3.2., table 8-1, second row.';

(2) Annex I is amended in accordance with Annex I to this Regulation;

(3) Annex II is amended in accordance with Annex II to this Regulation;

(4) Appendix 1 to Annex III is amended in accordance with Annex III to this Regulation;

(5) Annex IV is amended in accordance with Annex IV to this Regulation;

(6) Annex V is amended in accordance with Annex V to this Regulation;

(7) Annex VI is amended in accordance with Annex VI to this Regulation;

(8) Appendix 1 to Annex VII is amended in accordance with Annex VII to this Regulation;

(9) Annex VIII is amended in accordance with Annex VIII to this Regulation.

Article 2

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

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

Done at Brussels, 3 April 2018.

For the Commission
The President
Jean-Claude JUNCKER

ANNEX I

Annex I to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) in the list of appendices, the row relating to Appendix 10 is replaced by the following:

'10	Model information document relating to EU type-approval of electro-magnetic compatibility of electrical/electronic sub-assemblies as a component/STU'	

(2) Part A is amended as follows:

(a) the following point 1.4 is inserted:

'1.4. For engines, the information folder and the information document required in Annex I to Commission Implementing Regulation (EU) 2017/656 (*) shall be provided.

(*) Commission Implementing Regulation (EU) 2017/656 of 19 December 2016 laying down the administrative requirements relating to emission limits and type-approval of internal combustion engines for non-road mobile machinery in accordance with Regulation (EU) 2016/1628 of the European Parliament and of the Council (OJ L 102, 13.4.2017, p. 364).';

(b) point 2 is amended as follows:

(i) in the template of the information folder sheet, entry 2.5.2 is deleted;

(ii) in the explanatory notes relating to the information folder sheet, explanatory note ([5]) is replaced by the following

'([5]) For engines, indicate the engine type designation or, in case of engine types within an engine family, the Family Type (FT) in accordance with point 4 of Part B of Annex I to Commission Implementing Regulation (EU) 2017/656.';

(3) Part B is amended as follows:

(a) in point 3.1, Table 1-1 is amended as follows:

(i) List I is replaced by the following:

'**LIST I — Environmental and propulsion unit performance requirements**

Appendix	System or component/separate technical unit (STU)	Commission Delegated Regulation (EU) 2018/985 (*) Annex number	As amended by and/or at the stage of implementation
1	System: installation of an engine/engine family	I	
2	System: external sound level	II	
3	Component/STU: engine/engine family	I	

(*) Commission Delegated Regulation (EU) 2018/985 of 12 February 2018 supplementing Regulation (EU) No 167/2013 of the European Parliament and of the Council as regards environmental and propulsion unit performance requirements for agricultural and forestry vehicles and their engines and repealing Commission Delegated Regulation (EU) 2015/96 (OJ L 182; 18.7.2018, p. 1)';

(ii) in List II, row 10 is replaced by the following

'10	Component/STU: electro-magnetic compatibility of electrical / electronic sub-assemblies	XV'	

(b) point 4.2 is replaced by the following:

'4.2. For those subjects referred to in Annex I to Regulation (EU) No 167/2013 whose approvals have been granted in accordance with Regulation (EU) 2016/1628 of the European Parliament and of the Council (*), Regulation (EC) No 595/2009 of the European Parliament and of the Council (**) or the UNECE regulations referred to in Article 49 of Regulation (EU) No 167/2013 (UNECE approvals), or are based on complete test reports issued on the basis of the OECD standard Codes as an alternative to the test reports drawn up under that Regulation and the delegated acts adopted pursuant to it, the manufacturer shall supply the information required in point 5 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 III to this Regulation) shall be supplied in any case.

(*) Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC (OJ L 252, 16.9.2016, p. 53

(**) Regulation (EC) No 595/2009 of the European Parliament and of the Council of 18 June 2009 on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC (OJ L 188, 18.7.2009, p. 1).';

(c) point 5 is amended as follows:

(i) entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(ii) entries 2.5 to 2.5.4.2 are deleted;

(iii) entries 5.2 to 5.5 are deleted;

(iv) entries 6 to 8.22.4.2 are replaced by the following:

'6. ESSENTIAL CHARACTERISTICS OF THE ENGINE

6.1.7. Category and sub-category of the engine ([7]): …

6.2.1. Combustion Cycle: four stroke cycle/two stroke cycle/rotary/other (specify) ([4]): …

6.2.2. Ignition Type: Compression ignition/spark ignition ([4])

6.2.3.1. Cylinders' number: … and configuration ([26]):

6.2.8. Fuel

6.2.8.1. Fuel Type ([9]): …

6.2.8.3. List of additional fuels, fuel mixtures or emulsions compatible with use by the engine declared by the manufacturer in accordance with point 1.4 of Annex I to Delegated Regulation (EU) 2017/654 (provide reference to recognised standard or specification): .....

6.3.2.1. Declared rated speed: … rpm

6.3.2.1.2. Declared rated net power: … kW

6.3.2.2. Maximum power speed: … rpm

6.3.2.2.2. Maximum net power: … kW

6.3.6.4. Engine total swept volume: … cm^3';

(v) entry 10.4.2 is replaced by the following:

'10.4.2. Description and/or drawing of the elements of the exhaust system that are not part of the engine: .....';

(vi) entries 11.1 to 11.2.3 are replaced by the following:

'11.1. Brief description and schematic drawing of the vehicle drive-train and its control system (transmission ratio change system, clutch control or any other element of drive-train): …

11.2. Transmission

11.2.1. Brief description and schematic drawing of transmission ratio change system(s) and its control: …

11.2.2. Diagram and or drawing of the power transmission: …

11.2.3. Type of power transmission: Gear (including planetary gear sets) / belt / hydrostatic / electric / other ([4]) (if other, specify: …)';

(vii) entry 11.2.8 is replaced by the following:

'11.2.8. Type of transmission ratio change system: Mechanical (gear change) / Double clutch (gear change) / Semi-automatic (gear change) / Automatic (gear change) / Continuously Variable Transmission/ hydrostatic / not applicable / other ([4]) (if other, specify: …)';

(viii) entry 43.2 is replaced by the following:

'43.2. Specifications of the vehicle with respect to the control circuits of the pneumatic, hydraulic and/or electric control lines of the braking system(s) and a list of the supported messages and parameters: ……';

(ix) entries 43.5 and 43.5.1 are replaced by the following:

'43.5. Braking transmission (on towing vehicle)

43.5.1. Braking transmission of the service braking system on towing vehicle: mechanical/pneumatic/hydraulic/hydrostatic/without power assistance/power-assisted/fully powered transmission ([4])';

(x) entry 43.5.3 is replaced by the following:

'43.5.3. Locking of left and right braking controls: yes/no ([4])';

(xi) entry 43.6 is replaced by the following:

'43.6. Towed vehicle braking control devices (on towing vehicle)';

(xii) entries 43.6.2 to 43.6.5 are deleted.

(xiii) the following entries 43.6.2 to 43.7.3.2.1 are inserted:

'43.6.2. Description of the connectors, couplings and safety devices (including drawings, sketches and the identification of any electronic parts): ……

43.6.2.1. Pneumatic connection type: Two lines/None ([4])

43.6.2.1.1. Pneumatic supply pressure (two lines): … kPa

43.6.2.1.2. Electrical control line: yes/no ([4])

43.6.2.2. Hydraulic connection type: Single line / Two lines / None ([4])

43.6.2.2.1. Hydraulic supply pressure: Single line: … kPa Two lines: … kPa

43.6.2.2.2. Presence of ISO 7638:2003 connector ([15]): yes/no ([4])

43.7. Towed vehicle braking devices (on towed vehicle)

43.7.1. Towed vehicle braking control system technology: Hydraulic / Pneumatic / Electric/ Inertia / None ([4])

43.7.2. Towed vehicle-brake actuating device: Drum / Disc / Other ([4])

43.7.2.1. Description and characteristics: ……

43.7.3. Description of the connectors, couplings and safety devices (including drawings, sketches and the identification of any electronic parts): ……

43.7.3.1. Pneumatic connection type: Two lines/None ([4])

43.7.3.1.1. Electrical control line: yes/no ([4])

43.7.3.2. Hydraulic connection type: Two lines / None (4)

43.7.3.2.1. Presence of ISO 7638:2003 connector (15): yes/no (4)';

(4) Appendix 1 is amended as follows:

(a) entry 2.2 is replaced by the following:

'2.2. Type (6): …';

(b) entries 2.5 to 2.5.4.2 are deleted;

(c) entries 5.2 to 5.5 are deleted;

(d) entries 6 to 8.22.4.2 are replaced by the following:

'6. ESSENTIAL CHARACTERISTICS OF THE ENGINE

6.1.7. Category and sub-category of the engine (7):

6.2.1. Combustion Cycle: four stroke cycle/two stroke cycle/rotary/other (specify) (4): …

6.2.2. Ignition Type: Compression ignition/spark ignition (4)

6.2.3.1. Cylinders' number: … and configuration (26):

6.2.8. Fuel

6.2.8.1. Fuel Type (9):

6.2.8.3. List of additional fuels, fuel mixtures or emulsions compatible with use by the engine declared by the manufacturer in accordance with point 1.4 of Annex I to Delegated Regulation (EU) 2017/654 (provide reference to recognised standard or specification): .....

6.3.2.1. Declared rated speed: … rpm

6.3.2.1.2. Declared rated net power: … kW

6.3.2.2. Maximum power speed: … rpm

6.3.2.2.2. Maximum net power: … kW

6.3.6.4. Engine total swept volume: … cm^3';

(5) Appendix 2 is amended as follows:

(a) entry 2.2 is replaced by the following:

'2.2. Type (6): …';

(b) entries 2.5 to 2.5.4.2 are deleted;

(c) entries 5.2 to 5.5 are deleted;

(d) the following entries 6 to 6.3.6.4 are inserted before entry 10:

'6. ESSENTIAL CHARACTERISTICS OF THE ENGINE

6.1.7. Category and sub-category of the engine (7):

6.2.1. Combustion Cycle: four stroke cycle/two stroke cycle/rotary/other (specify) (4): …

6.2.2. Ignition Type: Compression ignition/spark ignition (4)

6.2.3.1. Cylinders' number: … and configuration (26):

6.3.2.1. Declared rated speed: … rpm

6.3.2.1.2. Declared rated net power: … kW

6.3.2.2. Maximum power speed: … rpm

6.3.2.2.2. Maximum net power: … kW

6.3.6.4. Engine total swept volume: … cm³';

(e) the following entries 11 to 11.4 are added:

'11. DRIVE-TRAIN AND CONTROL ([13])

11.1. Brief description and schematic drawing of the vehicle drive-train and its control system (transmission ratio change system, clutch control or any other element of drive-train): …

11.2. Transmission

11.2.1. Brief description and schematic drawing of transmission ratio change system(s) and its control: …

11.2.2. Diagram and or drawing of the power transmission: …

11.2.3. Type of power transmission: Gear (including planetary gear sets) / belt / hydrostatic / electric / other ([4]) (if other, specify: …)

11.2.4. Brief description of the electrical/electronic components (if any): …

11.2.5. Location relative to the engine: …

11.2.6. Method of control: …

11.2.7. Transfer box: with/without ([4])

11.2.8. Type of transmission ratio change system: Mechanical (gear change) / Double clutch (gear change) / Semi-automatic (gear change) / Automatic (gear change) / Continuously Variable Transmission/ hydrostatic / not applicable / other ([4]) (if other, specify: …)

11.3. Clutch (if any)

11.3.1 Brief description and schematic drawing of the clutch and its control system:

11.3.2 Maximum torque conversion:

11.4. Gear ratios

Gear	Internal gearbox ratios (ratios of engine to gearbox output shaft revolutions)	Internal transfer box ratios (ratios of engine to transfer box output shaft revolutions)	Final drive ratio(s) (ratio of gearbox output shaft to driven wheel revolutions)	Total gear ratios	Ratio (engine speed/vehicle speed) for manual transmission only
Maximum for CVT (*)					
1					
2					
3					
…					
Minimum for CVT (*)					
Reverse					
1					
…					

(*) Continuously variable transmission'

(6) Appendix 3 is amended as follows:

(a) entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(b) entries 2.5 to 2.5.4.2 are deleted;

(c) entries 5.2 to 5.5 are deleted;

(d) entries 6 to 8.22.4.2 are replaced by the following:

'6. ESSENTIAL CHARACTERISTICS OF THE ENGINE

6.1.7. Category and sub-category of the engine ([7]):

6.2.1. Combustion Cycle: four stroke cycle/two stroke cycle/rotary/other (specify) ([4]): …

6.2.2. Ignition Type: Compression ignition/spark ignition ([4])

6.2.3.1. Cylinders' number: … and configuration ([26]):

6.2.8. Fuel

6.2.8.1. Fuel Type ([9]): …

6.2.8.3. List of additional fuels, fuel mixtures or emulsions compatible with use by the engine declared by the manufacturer in accordance with point 1.4 of Annex I to Delegated Regulation (EU) 2017/654 (provide reference to recognised standard or specification): .....

6.3.2.1. Declared rated speed: … rpm

6.3.2.1.2. Declared rated net power: … kW

6.3.2.2. Maximum power speed: … rpm

6.3.2.2.2. Maximum net power: … kW

6.3.6.4. Engine total swept volume: … cm^3';

(7) in Appendix 4, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(8) in Appendix 5, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(9) in Appendix 6, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(10) in Appendix 7, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(11) in Appendix 8, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(12) in Appendix 9, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(13) Appendix 10 is amended as follows:

(a) the title is replaced by the following:

'*Appendix 10*

Model information document relating to EU type-approval of electro-magnetic compatibility of electrical/electronic sub-assemblies as a component/STU';

(b) entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(14) in Appendix 11, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(15) in Appendix 12, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(16) in Appendix 13, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(17) in Appendix 14, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(18) Appendix 15 is amended as follows:

(a) entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(b) entries 5.2 to 5.4 are deleted;

(c) entries 6 to 7.1.1 are replaced by the following:

'6. ESSENTIAL CHARACTERISTICS OF THE ENGINE

6.1.7. Category and sub-category of the engine ([7]): …

6.2.1. Combustion Cycle: four stroke cycle/two stroke cycle/rotary/other (specify) ([4]): …

6.2.2. Ignition Type: Compression ignition/spark ignition ([4])

6.2.3.1. Cylinders' number: … and configuration ([26]):

6.3.2.1. Declared rated speed: … rpm

6.3.2.1.2. Declared rated net power: … kW

6.3.2.2. Maximum power speed: … rpm

6.3.2.2.2. Maximum net power: … kW

6.3.6.4. Engine total swept volume: … cm^3';

(d) entries 11.1 to 11.2.3 are replaced by the following:

'11.1. Brief description and schematic drawing of the vehicle drive-train and its control system (transmission ratio change system, clutch control or any other element of drive-train): …

11.2. Transmission

11.2.1. Brief description and schematic drawing of transmission ratio change system(s) and its control: …

11.2.2. Diagram and or drawing of the power transmission: …

11.2.3. Type of power transmission: Gear (including planetary gear sets) / belt / hydrostatic / electric / other ([4]) (if other, specify: …)';

(e) entry 11.2.8 is replaced by the following:

'11.2.8. Type of transmission ratio change system: Mechanical (gear change) / Double clutch (gear change) / Semi-automatic (gear change) / Automatic (gear change) / Continuously Variable Transmission/ hydrostatic / not applicable / other ([4]) (if other, specify: …)';

(f) entry 43.2 is replaced by the following:

'43.2. Specifications of the vehicle with respect to the control circuits of the pneumatic, hydraulic and/or electric control lines of the braking system(s) and a list of the supported messages and parameters: …';

(g) entries 43.5 and 43.5.1 are replaced by the following:

'43.5. Braking transmission (on towing vehicle)

43.5.1. Braking transmission of the service braking system on towing vehicle: mechanical/pneumatic/hydraulic/hydrostatic/without power assistance/power-assisted/fully powered transmission ([4])';

(h) entries 43.5.3 and 43.6 are replaced by the following:

'43.5.3. Locking of left and right braking controls: yes/no (4)

43.6. Towed vehicle braking control devices (on towing vehicle)';

(i) entries 43.6.2 to 43.6.5 are replaced by the following entries 43.6.2 to 43.7.3.2.1:

'43.6.2. Description of the connectors, couplings and safety devices (including drawings, sketches and the identification of any electronic parts): .....

43.6.2.1. Pneumatic connection type: Two lines/None (4)

43.6.2.1.1. Pneumatic supply pressure (two lines): … kPa

43.6.2.1.2. Electrical control line: yes/no (4)

43.6.2.2. Hydraulic connection type: Single line / Two lines / None (4)

43.6.2.2.1. Hydraulic supply pressure: Single line: … kPa Two lines: … kPa

43.6.2.2.2. Presence of ISO 7638:2003 connector (15): yes/no (4)

43.7. Towed vehicle braking devices (on towed vehicle)

43.7.1. Towed vehicle braking control system technology: Hydraulic / Pneumatic / Electric/ Inertia / None (4)

43.7.2. Towed vehicle-brake actuating device: Drum / Disc / Other (4)

43.7.2.1. Description and characteristics: .....

43.7.3. Description of the connectors, couplings and safety devices (including drawings, sketches and the identification of any electronic parts): .....

43.7.3.1. Pneumatic connection type: Two lines/None (4)

43.7.3.1.1. Electrical control line: yes/no (4)

43.7.3.2. Hydraulic connection type: Two lines / None (4)

43.7.3.2.1. Presence of ISO 7638:2003 connector (15): yes/no (4)';

(19) Appendix 16 is amended as follows:

(a) entry 2.2 is replaced by the following:

'2.2. Type (6): …';

(b) the following entries 6 to 6.3.6.4 are inserted before entry 48:

'6. ESSENTIAL CHARACTERISTICS OF THE ENGINE

6.1.7. Category and sub-category of the engine (7): …

6.2.1. Combustion Cycle: four stroke cycle/two stroke cycle/rotary/other (specify) (4): …

6.2.2. Ignition Type: Compression ignition/spark ignition (4)

6.2.3.1. Cylinders' number: … and configuration (26):

6.3.2.1. Declared rated speed: … rpm

6.3.2.1.2. Declared rated net power: … kW

6.3.2.2. Maximum power speed: … rpm

6.3.2.2.2. Maximum net power: … kW

6.3.6.4. Engine total swept volume: … cm^3";

(c) the following entries 11 to 11.4 are inserted before entry 48:

'11. DRIVE-TRAIN AND CONTROL ([13])

11.1. Brief description and schematic drawing of the vehicle drive-train and its control system (transmission ratio change system, clutch control or any other element of drive-train): …

11.2. Transmission

11.2.1. Brief description and schematic drawing of transmission ratio change system(s) and its control: …

11.2.2. Diagram and or drawing of the power transmission: …

11.2.3. Type of power transmission: Gear (including planetary gear sets) / belt / hydrostatic / electric / other ([4]) (if other, specify: …)

11.2.4. Brief description of the electrical/electronic components (if any): …

11.2.5. Location relative to the engine: …

11.2.6. Method of control: …

11.2.7. Transfer box: with/without ([4])

11.2.8. Type of transmission ratio change system: Mechanical (gear change) / Double clutch (gear change) / Semi-automatic (gear change) / Automatic (gear change) / Continuously Variable Transmission/ hydrostatic / not applicable / other ([4]) (if other, specify: …)

11.3. Clutch (if any)

11.3.1 Brief description and schematic drawing of the clutch and its control system:

11.3.2 Maximum torque conversion:

11.4. Gear ratios

Gear	Internal gearbox ratios (ratios of engine to gearbox output shaft revolutions)	Internal transfer box ratios (ratios of engine to transfer box output shaft revolutions)	Final drive ratio(s) (ratio of gearbox output shaft to driven wheel revolutions)	Total gear ratios	Ratio (engine speed/vehicle speed) for manual transmission only
Maximum for CVT (*)					
1					
2					
3					
…					
Minimum for CVT (*)					
Reverse					
1					
…					

(*) Continuously variable transmission'

(20) in Appendix 17, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(21) in Appendix 18, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(22) in Appendix 19, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(23) in Appendix 20, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(24) in Appendix 21, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(25) in Appendix 22, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(26) in Appendix 23, entry 2.2 is replaced by the following:

'2.2. Type ([6]): …';

(27) the explanatory notes relating to the information document are amended as follows:

(a) explanatory notes ([6]) and ([7]) are replaced by the following:

'([6]) For engines, indicate the engine type designation or, in case of engine types within an engine family, the Family Type (FT) in accordance with point 4 of Part B of Annex I to Commission Implementing Regulation (EU) 2017/656.

([7]) Indicate the category and sub-category of the engine in accordance with Article 4 and Annex I to Regulation (EU) 2016/1628';

(b) explanatory note ([9]) is replaced by the following:

'([9]) Indicate the fuel type by the following codes:

B5: Diesel (non-road gas-oil)

E85: Ethanol

ED95: Ethanol for dedicated compression ignition engines

E10: Petrol

NG: Natural gas/Biomethane

LPG: Liquid Petroleum Gas

O (…): Other (specify)

The Sub Fuel type by the following codes (only for Natural gas/Biomethane):

U: Universal fuel — high calorific fuel (H-gas) and low calorific fuel (L-gas)

RH: Restricted fuel — high calorific fuel (H-gas)

RL: Restricted fuel — low calorific fuel (L-gas)

LNG: Fuel specific

The fuelling arrangement by the following codes:

L: Liquid-fuel only

G: Gaseous-fuel only

D1A: Dual-fuel type 1A

D1B: Dual-fuel type 1B

D2A: Dual-fuel type 2A

D2B: Dual-fuel type 2B

D3B: Dual-fuel type 3B';

(c) explanatory note ([26]) is replaced by the following:

'([26]) Indicate the layout of the cylinders by the following codes:

LI: in line

V: in V

O: opposed

S: single

R: radial

O (…): other (specify)';

(d) explanatory notes ([12]), ([24]), ([29]), ([39]), ([40]) and ([56]) are deleted.

ANNEX II

Annex II to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) in point 2.1.1, in the template of Addendum 1, the words 'Additional information on the engine ([4]):' and entry 2.5.2 are deleted;

(2) in the explanatory notes relating to Annex II, explanatory note ([4]) is replaced by the following:

'([4]) For engines, indicate the engine type designation or, in case of engine types within an engine family, the Family Type (FT) in accordance with point 4 of Part B of Annex I to Commission Implementing Regulation (EU) 2017/656.'.

ANNEX III

Appendix 1 of Annex III to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) Model 1 of Section 2 is amended as follows:

(a) under the heading 'General powertrain characteristics' entries 5.2, 5.3 and 5.5 are deleted;

(b) the entries under the heading 'Engine' are amended as follows:

(i) entry 2.2 is replaced by the following:

'2.2. Type ([37]): …';

(ii) entry 2.5.2 is deleted;

(iii) entries 6.1 to 7.1.1 are replaced by the following:

'6.1.7. Category and sub-category of the engine ([12]): …

6.2.1. Combustion Cycle: four stroke cycle/two stroke cycle/rotary/other (specify) ([1]): …

6.2.2. Ignition Type: Compression ignition/spark ignition ([1])

6.2.3.1. Cylinders' number: … and configuration ([24]): …

6.2.8.1. Fuel Type ([20]): Fuel type / Sub Fuel type / Fuelling arrangement

6.2.8.3. List of additional fuels compatible with use by the engine ([21]):

6.3.2.1.2. Declared rated net power: … kW

6.3.2.2.2. Maximum net power: … kW

6.3.6.4. Engine total swept volume: … cm^3';

(c) entry 11.2.8 under the heading 'Gearbox' is replaced by the following:

'11.2.8. Type of transmission ratio change system: Mechanical (gear change) / Double clutch (gear change) / Semi-automatic (gear change) / Automatic (gear change) / Continuously Variable Transmission/ hydrostatic / not applicable / other ([1]) (if other, specify: …)';

(d) entries under the heading 'Braking' are amended as follows:

(i) entry 43.5.1 is replaced by the following:

'43.5.1. Braking transmission: mechanical/pneumatic/ hydraulic / hydrostatic / without power assistance/power-assisted/fully powered transmission ([1])';

(ii) entry 43.5.3 is deleted;

(e) in the text under the heading 'Results of the sound level test (external)', the words 'Measured according to Annex III to Commission Delegated Regulation (EU) 2015/96' are replaced by the words 'Measured in accordance with Annex II to Commission Delegated Regulation (EU) 2018/985, as last amended by Commission Delegated Regulation (EU) …/… ([1]) ([28])';

(f) the text under the heading 'Results of exhaust emission tests (inclusive of Deterioration Factor)' is amended as follows:

(i) the first and second indents are replaced by the following:

'— Commission Delegated Regulation (EU) 2018/985, as last amended by Commission Delegated Regulation (EU) …/… ([1]) ([28]): yes/no ([1]); or

— Regulation (EU) 2016/1628 of the European Parliament and of the Council, as last amended by (Commission Delegated) ([1]) Regulation (EU) …/… (of the European Parliament and of the Council) ([1]) ([29]): yes/no ([1]); or';

(ii) the last indent is deleted;

(iii) the table is replaced by the following

'Emissions	CO (g/kWh)	HC (g/kWh)	NO_x (g/kWh)	HC + NO_x (g/kWh)	PM (g/kWh)	PN (#/kWh)	Test Cycle (1)
NRSC (2) / ESC / WHSC (1)							
NR transient test (3) / ETC / WHTC (1)							
CO_2 result (4):							

Explanatory notes:
For engines tested on heavy duty test cycles, indicate the final test results (inclusive of Deterioration Factor) and the CO_2 result of the ESC/WHSC or ETC/WHTC test in accordance with Regulation (EC) 595/2009.
For engines tested on non-road test cycles, indicate the applicable information of the Test Report For Non-Road Engines set out in Appendix 1 to Annex VI to Commission Implementing Regulation (EU) 2017/656, in accordance with the following explanatory notes:
(1) For NRSC, note the cycle indicated in point 9.1 (Table 4) of; for transient test note the cycle indicated in point 10.1 (Table 8).
(2) Copy the "Final test result with DF" results from Table 6.
(3) Copy the "Final test result with DF" results from Table 9 or, as applicable, from Table 10.
(4) For an engine type or engine family that is tested on both the NRSC and a non-road transient cycle, indicate the hot cycle CO_2 emissions values from the NRTC noted in point 10.3.4 or the CO_2 emissions values from the LSI-NRTC noted in point 10.4.4. For an engine only tested on an NRSC indicate the CO_2 emissions values given in that cycle from point 9.3.3.';

(g) the heading 'Comments (32)' is replaced by the following:

'Comments:';

(2) Model 2 of Section 2 is amended as follows:

(a) the entries under the heading 'Braking' are replaced by the following:

'43.4.6. Electronic braking system: yes/no/optional (1)

43.7.1. Towed vehicle braking control system technology: Hydraulic / Pneumatic / Electric / Inertia / None (1)

43.7.4. Connections type: two-lines / none (1)

43.7.5. Electrical control line: yes/no (1)

43.7.6. Presence of ISO 7638:2003 connector (33p): yes/no (1)';

(b) the heading 'Comments (32)' is replaced by the following:

'Comments:';

(3) the explanatory notes relating to Appendix 1 are amended as follows:

(a) the following explanatory note (12) is inserted:

'(12) Indicate the category and sub-category of the engine in accordance with Article 4 and Annex I to Regulation (EU) 2016/1628';

(b) explanatory notes (20) and (21) are replaced by the following:

'(20) Indicate the fuel type by the following codes:

B5: Diesel (non-road gas-oil)

E85: Ethanol

ED95: Ethanol for dedicated compression ignition engines

E10: Petrol

NG: Natural gas/Biomethane

LPG: Liquid Petroleum Gas

O (…): Other (specify)

The Sub Fuel type by the following codes (only for Natural gas/Biomethane):

U: Universal fuel — high calorific fuel (H-gas) and low calorific fuel (L-gas)

RH: Restricted fuel — high calorific fuel (H-gas)

RL: Restricted fuel — low calorific fuel (L-gas)

LNG: Fuel specific

The fuelling arrangement by the following codes:

L: Liquid-fuel only

G: Gaseous-fuel only

D1A: Dual-fuel type 1A

D1B: Dual-fuel type 1B

D2A: Dual-fuel type 2A

D2B: Dual-fuel type 2B

D3B: Dual-fuel type 3B

([21]) As declared by the manufacturer in accordance with point 1 of Annex I to Commission Delegated Regulation (EU) 2017/654 (provide reference to recognised standard or specification)';

(c) explanatory note ([22]) is deleted;

(d) the following explanatory note ([24]) is inserted:

'([24]) Indicate the layout of the cylinders by the following codes:

LI: in line

V: in V

O: opposed

S: single

R: Radial

O (…): Other (specify)';

(e) explanatory note ([29]) is replaced by the following:

'([29]) Indicate only the latest amendment.';

(f) explanatory note ([31]) is deleted;

(g) explanatory note ([32]) is deleted;

(h) the following explanatory note ([37]) is inserted:

'([37]) Indicate the engine type designation or, in case of engine types within an engine family, the Family Type (FT) in accordance with point 4 of Part B of Annex I to Commission Implementing Regulation (EU) 2017/656.'.

ANNEX IV

Annex IV to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) point 4.2.1.7 is replaced by the following:

'4.2.1.7. For C-category vehicles, in addition, technically permissible maximum mass per set of track trains, and, in the same line, average contact pressure on the ground; this information must be combined with that provided for point 4.2.1.6 and listed in order from front to rear, in the following format: 'S-1: … kg P: … kPa' 'S-2: … kg P: … kPa' 'S-…: … kg P: … kPa'. Each entry separated by one or more spaces.';

(2) the following point 2.1.1.10 is inserted:

'2.1.1.10. For vehicles fitted with transition engines, as defined in Article 3(32) of Regulation (EU) 2016/1628, the vehicle's production date in the following format: 'MM/YYYY'. Alternatively, the vehicle's production date shall be stated in an additional separate statutory plate stating also the VIN.';

(3) the following point 5.4 is added:

'5.4. Specific requirements for marking of engines

Notwithstanding point 5.2, the statutory marking of the engine shall be in accordance with the provisions set out in Annex III to Implementing Regulation (EU) 2017/656, with the following exceptions:

(a) for engines type-approved in accordance with Regulation (EU) No 167/2013, the EU type-approval number set out in Table 6-1 of Annex VI shall be stated instead of the EU type-approval number set out in Annex V to Implementing Regulation (EU) 2017/656;

(b) for replacement engines type-approved in accordance with Directive 2000/25/EC of the European Parliament and of the Council (*), the EC type-approval number set out in Appendix 1 to Chapter C of Annex II to Directive 2003/37/EC of the European Parliament and of the Council (**) shall be stated instead of the EC type-approval number issued in accordance with Directive 97/68/EC of the European Parliament and of the Council (***).

(*) Directive 2000/25/EC of the European Parliament and of the Council of 22 May 2000 on action to be taken against the emission of gaseous and particulate pollutants by engines intended to power agricultural and forestry tractors and amending Council Directive 74/150/EEC (OJ L 173, 12.7.2000, p. 1).

(**) Directive 2003/37/EC of the European Parliament and of the European Council of 26 May 2003 on the type-approval of agricultural or forestry tractors, their trailers and interchangeable towed machinery, together with their systems, components and separate technical units and repealing Directive 74/150/EEC (OJ L 171, 9.7.2003, p. 1).

(***) Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (OJ L 59, 27.2.1998, p. 1).'.

ANNEX V

Annex V to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) in Appendix 2, in the explanatory notes relating to Appendix 2, explanatory note ([10]) is replaced by the following:

'([10]) List only subjects referred to in Annex I to Regulation (EU) No 167/2013 whose approvals have been granted in accordance with Regulation (EU) 2016/1628 or the UNECE regulations referred to in Article 49 of Regulation (EU) No 167/2013 (UNECE approvals), or are based on complete test reports issued on the basis of the OECD standard Codes as an alternative to the test reports drawn up under Regulation (EU) No 167/2013 and the delegated and implementing acts adopted pursuant to that Regulation.';

(2) in Appendix 3, in the list of regulatory acts with which the type of vehicle complies, rows 75, 76 and 77 are replaced by the following:

'75	EU type-approval of a type of engine or engine family for an agricultural and forestry vehicle type as a component / separate technical unit regarding the pollutants emitted	Commission Delegated Regulation (EU) 2018/985 Annex I		
76	EU type-approval of an agricultural and forestry vehicle type equipped with an engine type or engine family regarding the pollutants emitted	Commission Delegated Regulation (EU) 2018/985 Annex I		
77	External sound emission	Commission Delegated Regulation (EU) 2018/985 Annex III'		

(3) Appendix 4 is amended as follows:

(a) in Section I, entry 2.2 is replaced by the following:

'2.2. Type ([11]): …';

(b) in the explanatory notes relating to Appendix 4, the following explanatory note ([11]) is added:

'([11]) Indicate the engine type designation or, in case of engine types within an engine family, the Family Type (FT) in accordance with point 4 of Part B of Annex I to Commission Implementing Regulation (EU) 2017/656.';

(4) Appendix 5 is amended as follows:

(a) in Section I, entry 2.2 is replaced by the following:

'2.2. Type ([7]): …';

(b) in the explanatory notes relating to Appendix 5, the following explanatory note ([7]) is added:

'([7]) Indicate the engine type designation or, in case of engine types within an engine family, the Family Type (FT) in accordance with point 4 of Part B of Annex I to Commission Implementing Regulation (EU) 2017/656.'.

ANNEX VI

Annex VI to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) point 2.2.3 is replaced by the following:

'2.2.3. 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 167/2013: '2015/208', '2015/68', '1322/2014', '2015/96' or '2018/985' shall be indicated.';

(2) in point 4, Table 6-1 is amended as follows:

(a) List I is replaced by the following:

'**LIST I — Environmental and propulsion unit performance requirements**

System or component/separate technical unit (STU)	Commission Delegated Regulation (EU)	alphanumerical character
System: installation of an engine/engine family	2015/96	A
System: installation of an Stage V engine/engine family	2018/985	A1
System: external sound level	2015/96 or 2018/985	B
Component/STU: engine/engine family	2015/96	C
Component/STU: Stage V engine/engine family	2018/985	C1'

(b) the seventh row of List II is replaced by the following:

'Component/ STU: electro-magnetic compatibility of electrical / electronic sub-assemblies	2015/208	J'.

ANNEX VII

Appendix 1 to Annex VII to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) in point 1, the words 'Measured according to Annex III to Commission Delegated Regulation (EU) 2015/96' are replaced by the words 'Measured in accordance with Annex II to Commission Delegated Regulation (EU) 2018/985, as last amended by Commission Delegated Regulation (EU) …/… [1] [3]';

(2) point 2 is amended as follows:

(a) the first and second indents are replaced by the following:

'— Commission Delegated Regulation (EU) 2018/985, as last amended by Commission Delegated Regulation (EU) …/… [1] [3]: yes/no [1]; or

— Regulation (EU) 2016/1628 of the European Parliament and of the Council, as last amended by (Commission Delegated) [1] Regulation (EU) …/… (of the European Parliament and of the Council) [1] [4]: yes/no [1]; or';

(b) the last indent is deleted;

(3) points 2.1 and 2.2 are replaced by the following:

'2.1. NRSC [2]: … / ESC / WHSC [1] final test results (inclusive of Deterioration Factor) [6]:

Variant/Version	…	…	…
CO	… g/kWh	… g/kWh	… g/kWh
HC	… g/kWh	… g/kWh	… g/kWh
NO_x	… g/kWh	… g/kWh	… g/kWh
HC + NO_x	… g/kWh	… g/kWh	… g/kWh
PM	… g/kWh	… g/kWh	… g/kWh
PN	… #/kWh	… #/kWh	… #/kWh

2.2. Non-road transient test cycle [7]: … / ETC / WHTC [1] final test results (inclusive of Deterioration Factor) [8]:

Variant/Version	…	…	…
CO	… g/kWh	… g/kWh	… g/kWh
HC	… g/kWh	… g/kWh	… g/kWh
NO_x	… g/kWh	… g/kWh	… g/kWh
HC + NO_x	… g/kWh	… g/kWh	… g/kWh
PM	… g/kWh	… g/kWh	… g/kWh
PN	… #/kWh	… #/kWh	… #/kWh'

(4) the following point 2.3 is inserted:

'2.3. CO_2 [9]

Variant/Version	…	…	…
CO_2	…	…	…'

(5) the explanatory notes relating to Appendix 1 are amended as follows:

(a) explanatory note [2] is replaced by the following:

'[2] For vehicles fitted with engines tested in accordance with a non-road steady-state test cycle, indicate the test cycle in accordance with point 9.1 (Table 4) of the template for the single format of the test report set out in Appendix 1 to Annex VI to Implementing Regulation (EU) 2017/656.';

(b) explanatory note (4) is replaced by the following:

'(4) Indicate only the latest amendment.';

(c) explanatory note (6) is replaced by the following:

'(6) For each engine type fitted on every variant/version, indicate:

(a) for engines tested in accordance with a non-road steady-state test cycle, copy the "Final test result with DF" results from Table 6 of the template for the single format of the test report set out in Appendix 1 to Annex VI to Implementing Regulation (EU) 2017/656,

(b) for engines tested on heavy duty test cycles, indicate the final test results (inclusive of Deterioration Factor) of the ESC/WHSC test in accordance with Regulation (EC) No 595/2009.';

(d) the following explanatory notes (7) to (9) are added:

'(7) For vehicles fitted with engines tested in accordance with a non-road transient test cycle, indicate the test cycle in accordance with point 10.1 (Table 8) of the template for the single format of the test report set out in Appendix 1 to Annex VI to Implementing Regulation (EU) 2017/656.

(8) For each engine type fitted on every variant/version, indicate:

(a) for engines tested in accordance with a non-road transient test cycle, copy the "Final test result with DF" results from Table 9 or, as applicable, from Table 10, of the template for the single format of the test report set out in Appendix 1 to Annex VI to Implementing Regulation (EU) 2017/656,

(b) for engines tested on heavy duty test cycles, indicate the final test results (inclusive of Deterioration Factor) of the ETC/WHTC test in accordance with Regulation (EC) 595/2009.

(9) For each engine type fitted on every variant/version, indicate:

(a) for an engine type or engine family that is tested on both the NRSC and a non-road transient test cycle, copy, as applicable, the following values of the template for the single format of the test report set out in Appendix 1 to Annex VI to Implementing Regulation (EU) 2017/656: the hot cycle CO_2 emissions values from the NRTC noted in point 10.3.4; the CO_2 emissions values from the LSI-NRTC noted in point 10.4.4; or, for an engine only tested on an NRSC, indicate the CO_2 emissions values given in that cycle from point 9.3.3,

(b) for engines tested on heavy duty test cycles, indicate the CO_2 result of the ESC/WHSC or ETC/WHTC test in accordance with Regulation (EC) 595/2009.'.

ANNEX VIII

Annex VIII to Implementing Regulation (EU) 2015/504 is amended as follows:

(1) point 3.2 is amended as follows:

(a) the first paragraph is replaced by the following:

'Test reports issued under Directive 2003/37/EC, Regulation (EU) 2016/1628, Regulation (EC) No 595/2009, Directive 2007/46/EC or international regulations referred to in Chapter XIII of Regulation (EU) No 167/2013 and the delegated and implementing acts adopted pursuant to that Regulation shall be accepted for the purposes of type-approval under Regulation (EU) No 167/2013 for the following components and separate technical units under the conditions indicated in Table 8-1:';

(b) in Table 8-1, the first and second rows are replaced by the following:

'Component/STU: engine/engine family	Test report issued under Directive 2000/25 as last amended by Commission Directive 2014/43/EU; Test report issued under Regulation EU 2016/1628; and Test report issued under Regulation (EC) No 595/2009
Component / STU: electro-magnetic compatibility of electrical / electronic sub-assemblies	Test report issued under Directive 2009/64/EC of the European Parliament and of the Council (*), as far as the testing equipment has been updated in: — Radiated broadband and narrowband electromagnetic emissions from vehicles — Radiated broadband and narrowband electromagnetic emissions from electronic sub-assemblies The measuring equipment and test site shall comply with the requirements of publication No 16-1 series of the International Special Committee on Radio Interference (CISPR): — Radiated broadband and narrowband electromagnetic emissions from vehicles — Antenna calibration may be according to the method described in CISPR publication No 12, Edition 6, Annex C, and Test report issued under UNECE Regulation 10, 04 series of amendments, Corrigendum 1 to the Revision 4, supplement 1 to the 04 series of amendments (OJ L 254, 20.9.2012, p. 1.)

(*) Directive 2009/64/EC of the European Parliament and of the Council of 13 July 2009 on the suppression of radio interference produced by agricultural or forestry tractors (electromagnetic compatibility) (OJ L 216, 20.8.2009, p. 1).';

(2) the following point 3.5 is added:

'3.5. Test report for engines

Test reports for engines shall be drafted in accordance with the single format of the test report set out in Annex VI to Implementing Regulation (EU) 2017/656.'.