COMMISSION IMPLEMENTING REGULATION (EU) …/...

of XXX

laying down rules for the application of Regulation (EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of vehicles, and of systems, components and separate technical units intended for such vehicles, as regards their general construction characteristics and safety

(Text with EEA relevance)
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laying down rules for the application of Regulation (EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of vehicles, and of systems, components and separate technical units intended for such vehicles, as regards their general construction characteristics and safety

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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


Whereas:


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over and, where necessary, amended to take account of current practice and technological developments.

(2) Provisions concerning uniform administrative procedures and technical specifications for type-approval of vehicles and of systems, components and separate technical units regarding their general safety should be laid down in this Regulation.

(3) The scope of this Regulation should be in line with that of Regulation (EU) 2019/2144, in particular as defined in its Annex II.

(4) It is in particular necessary to set out specific procedures for type-approval in accordance with Article 30(1) of Regulation (EU) 2018/858 concerning virtual testing, Article 39(1) concerning new technologies or concepts incompatible with the existing requirements and Article 72(1) concerning in-house technical service with regard to areas covered by UN regulations, as such provisions are needed.

(5) It is in principle not possible to obtain type-approval in accordance with UN regulations in the case of installed components or separate technical units which have only a valid EU type-approval. However, this should be made possible for the purposes of EU type-approval according to Regulation (EU) 2019/2144, based on the provisions of the UN regulations listed in Annex II to that Regulation.

(6) UN regulations contain specific provisions on the particulars that must accompany an application for type-approval. In the context of the procedures provided for in this Regulation, those particulars should equally be indicated in the information folder.

(7) In order to harmonise further the provisions concerning the space for mounting and fixing of registration plates, the requirements applicable for rear registration plate space should be extended to also cover the front registration plate space.

(8) In order to prevent clerical errors in the vehicle identification number (VIN), the VIN should contain a check digit and the method of calculation of that check digit should be defined.

(9) Global harmonisation of safety requirements with respect to hydrogen-powered vehicles is an important step to promote alternative fuel vehicles. UN Regulation No 134\(^{20}\) applies in the Union, however, it does not contain any requirements on material compatibility and hydrogen embrittlement for hydrogen systems and components for hydrogen-powered vehicles. Such requirements are necessary to ensure a high level of safety as regards material selection in hydrogen systems.

(10) Specific provisions for liquefied hydrogen storage systems as well as geometries of the fuelling receptacles are also not yet included in UN regulation 134, whereas they need to be carried over from Regulation (EC) No 79/2009 to ensure consistency.

(11) To allow for a consistent approach with regard to the numbering of EU type-approval certificates and EU type-approval marks, it is further necessary to set out specific administrative provisions as well as a numbering and marking system under this

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Regulation. For that purpose, Annex IV to Commission Implementing Regulation (EU) 2020/683\textsuperscript{21} needs to be amended.

(12) The templates for the information documents and the type-approval certificates, contained in Annexes I and III to Regulation (EU) 2020/683, should also be modified to take into account the new requirements introduced by this Regulation. In addition, certain editorial errors are detected in the Appendix to Annex VIII to that Regulation that need to be corrected in order to ensure legal certainty.

(13) More time is needed for manufacturers to adjust to the new requirements with regard to the statutory markings and the space for mounting and fixing of front registration plates. Therefore, transitional provisions are needed to ensure that those requirements will first apply to new vehicle types.

(14) As far as this Regulation does not modify the requirements under Regulations (EC) No 78/2009, (EC) No 79/2009 and (EC) No 661/2009 of the European Parliament and of the Council, type-approvals granted to vehicles, systems, components or separate technical units in accordance with those Regulations should remain valid and extensions of such approvals should remain possible under the terms of the repealed acts.

(15) The empowerments contained in Articles 4(7), 8(3) and 10(3) of Regulation (EU) 2019/2144 aim at the introduction of uniform procedures and technical specifications for type-approval of vehicles, and of systems, components and separate technical units intended for such vehicles, as regards certain general characteristics of their construction and safety. As those empowerments are closely linked by their subject matter, they should be bundled in this Regulation.

(16) The measures provided for in this Regulation are in accordance with the opinion of the Technical Committee – Motor Vehicles,

HAS ADOPTED THIS REGULATION:

CHAPTER I

SUBJECT MATTER AND DEFINITIONS

Article 1

Subject matter

1. This Regulation lays down provisions for the administrative procedures and technical specifications for EU type-approval of vehicles of categories M, N and O, as well as of systems, components and separate technical units in accordance with Articles 4(7), 8(3), and 10(3) of Regulation (EU) 2019/2144 of the European Parliament and of the Council.

2. This Regulation also provides for procedures allowing type-approval in one or more of the following cases:

(a) of new technologies or concepts in accordance with Article 39 of Regulation (EU) 2018/858 of the European Parliament and of the Council;

(b) of vehicle systems where components and separate technical units bearing an EU type-approval mark are applied instead of an UN type-approval mark in the context of measures implementing Regulation (EU) 2019/2144 setting out requirements in areas covered by UN regulations,

(c) where a manufacturer is designated as technical service in accordance with Article 72(1) and Annex VII to Regulation (EU) 2018/858 of the European Parliament and of the Council, and

(d) where virtual testing in accordance with Article 30(7) and Annex VIII to Regulation (EU) 2018/858 of the European Parliament and of the Council has been applied.

**Article 2**

**Definitions**

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

1. ‘vehicle type’ means a set of vehicles as defined in Part B of Annex I to Regulation (EU) 2018/858;

2. ‘vehicle type with regard to the statutory markings’ means vehicles which do not differ in such essential respects as:
   - the composition of the vehicle identification number;
   - the characteristics and location of the statutory markings;

3. ‘statutory plate’ means a plate or label, affixed by the manufacturer on a vehicle that provide the main technical characteristics which are necessary for the identification of the vehicle and provides the competent authorities with the relevant information concerning the permissible maximum laden masses;

4. ‘vehicle identification number (VIN)’ means the alphanumeric code assigned to a vehicle by the manufacturer in order to ensure proper identification of every vehicle;

5. ‘vehicle type with regard to the space for mounting and the fixing of [the front and rear] registration plates’ means vehicles which do not differ in such essential respects as:
   - the dimensions of the space for mounting and fixing of the front and rear registration plates;
   - the location of the space for mounting and fixing of the front and rear registration plates;
   - the shape of the surface for mounting and fixing of the front and rear registration plates;

6. ‘vehicle type with regard to the windscreen wiper and washer system’ means vehicles which do not differ in such essential respects as: the characteristics of the wiper and washer system or the shape, size and characteristics of the windscreen and its mounting;
(7) ‘type of windscreen washer system’ means a group of windscreen washer systems which do not differ in such essential respects as the pump performance, materials used, storage capacity, number of nozzles, sizes, wall thicknesses or shape of the washer system;

(8) ‘windscreen wiper system’ means the system consisting of a device for wiping the outer face of the windscreen, together with the accessories and controls necessary for starting and stopping the device;

(9) ‘windscreen washer system’ means the system consisting of devices for storing, transferring and aiming fluid towards the outer face of the windscreen, together with the controls necessary for starting and stopping the device;

(10) ‘vehicle type with regard to wheel guards’ means vehicles which do not differ in such essential respects as the characteristics of the wheel guards or the minimum and maximum tyre and wheel sizes suitable for fitment, taking into account the applicable tyre envelopes, rim sizes and wheel off-sets;

(11) ‘vehicle type with regard to the windscreen defrosting and demisting systems’ means vehicles which do not differ in such essential respects as:

(a) the characteristics of the defrosting and demisting systems;

(b) the external and internal forms and arrangements within the 180° forward field of vision area of the driver which may affect visibility;

(c) the shape, size, thickness and characteristics of the windscreen and its mounting;

(d) the maximum number of seating positions;

(12) ‘defrosting system’ means the system intended to eliminate frost or ice on the outside surface of the windscreen;

(13) ‘demisting system’ means the system intended to remove mist on the inside surface of the windscreen;

(14) ‘vehicle type with regard to the towing devices’ means vehicles which do not differ in such essential respects as the characteristics of the towing devices;

(15) ‘towing device’ means a device in the shape of a hook, eye or other form, to which a connecting part, such as a towing bar or towing rope, can be fitted;

(16) 'vehicle type with regard to spray suppression' means complete, incomplete or completed vehicles, which do not differ with respect to the following aspects:

(a) type of spray suppression device installed on the vehicle;

(b) manufacturer's spray suppression system type designation;

(17) ‘type of spray suppression device’ means devices which do not differ with respect to the following main characteristics:

(a) the physical principle adopted in order to reduce emissions (water-energy absorption, air/water separator);

(b) materials;

(c) shape;

(d) dimensions, in so far as they may influence the behaviour of the material;
‘spray suppression system’ means a system that reduces the pulverization of water thrown upwards by the tyres of a vehicle in motion and which is made up of a mudguard, rain flaps and valances equipped with a spray suppression device;

‘spray suppression device’ means part of the spray suppression system, which may comprise an air/water separator and an energy absorber;

‘vehicle type with regard to the gear shift indicator (GSI)’ means vehicles which do not differ with respect to functional characteristics of the GSI and the logic used by the GSI to determine when to indicate a gearshift point, including:

(a) upshifts indicated at specified engine speeds;
(b) upshifts indicated when specific fuel consumption engine maps show that a specified minimum fuel consumption improvement will be delivered in the higher gear;
(c) upshifts indicated when torque demand can be met in the higher gear;

‘functional characteristics of the GSI’ means the set of input parameters, such as engine speed, power demand, torque and their variation in time, determining the GSI indication and the functional dependence of the GSI indications on these parameters;

‘vehicle type with regard to vehicle access’ means vehicles which do not differ in such essential respects as the characteristics of door entry steps, handholds and running boards;

‘vehicle type with regard to reversing motion’ means vehicles which do not differ in such essential respects as the characteristics of the reversing device; ‘vehicle type with regard to the masses and dimensions’ means vehicles which do not differ in any of the following aspects:

(a) trade name or mark of their manufacturer;
(b) classification;
(c) main function;

‘vehicle type with regard to the masses and dimensions’ means vehicles which do not differ in any of the following aspects:

(a) trade name or mark of their manufacturer;
(b) classification;
(c) main function;

‘aerodynamic devices and equipment’ means devices or equipment that are designed to reduce the aerodynamic drag of road vehicles with the exception of elongated cabs;

‘type of hydrogen storage system’ means an assembly of components which do not differ in such essential respects as the state of stored hydrogen fuel or compressed gas, the nominal working pressure, the structure, materials, capacity and physical dimensions of the container as well as the structure, materials and essential characteristics of the pressure relief devices, check valves and shut-off valves;

‘vehicle type with regard to hydrogen safety’ means a group of vehicles which do not differ in such essential respects as the basic configuration and main characteristics of the vehicle’s hydrogen fuel system;
CHAPTER II
TYPE-APPROVAL IN ACCORDANCE WITH ESSENTIAL REQUIREMENTS BASED ON UN REGULATIONS

Article 3
Application for the EU type-approval

1. In one or more of the cases referred to in Article 1(2) of this Regulation, applications for EU type-approval of a type of vehicle, system, component or separate technical unit, in accordance with the requirements set out in the UN regulations listed in Annex II to Regulation (EU) 2019/2144, shall be submitted to the type-approval authority by manufacturers or their representatives, using the model information document laid down in Part I of Annex I.

Any EU or UN type-approved components and separate technical units which are installed on a vehicle or incorporated within a second component or separate technical unit need not to be fully described in terms of their particulars in the information document referred to in paragraph 1 where the type-approval numbers and markings are provided in the information document and the relevant type-approval certificates with annexed information packages are made available to the type-approval authority.

Components and separate technical units which have a valid EU type-approval mark shall be accepted even in cases where they are applied instead of components and separate technical units that are required to bear an UN type-approval mark pursuant to measures implementing Regulation (EU) 2019/2144 setting out provisions in areas covered by UN regulations.

Article 4
Granting of the EU type-approval

1. Where the type of vehicle, system, component or separate technical unit presented for type-approval complies with the relevant technical requirements with the UN regulations, and where the applicant fulfils the relevant requirements laid down in Article 3 of this Regulation, and where an authorisation is given in accordance with the procedure set out in Article 39 of Regulation (EU) 2018/858, the type-approval authority shall grant an EU type-approval and issue a type-approval number in accordance with the method set out in Annex IV of Regulation (EU) 2020/683.

The type-approval authority shall not assign the same number to another type of vehicle, system, component or separate technical unit.

The EU type-approval certificate, issued by the type-approval authority, shall follow the model set out in Part 2 of Annex I together with the completed communication form corresponding to the relevant model in the applied UN regulation with the entry of its UN type-approval number left blank.
Each component or separate technical unit conforming to a type in respect of which an EU type-approval has been granted pursuant to this Regulation shall bear an EU separate technical unit type-approval mark in accordance with paragraph 4 of Annex V to Regulation (EU) 2020/683.

CHAPTER III
EU VEHICLE TYPE-APPROVAL WITH REGARD TO CERTAIN SPECIFIC CONSTRUCTION AND SAFETY REQUIREMENTS

Article 5
Application for the EU type-approval of a vehicle type as regards certain vehicle systems

1. A separate application for EU type-approval of a vehicle type as regards each of the following items shall be submitted to the type-approval authority by manufacturers or their representatives, using the respective model information document:

   (a) the lay-out and the location of the statutory plate and the composition and the location of the vehicle identification number, using the model laid down in Part 1 of Annex II;
   (b) the space for mounting and the fixing of [front and rear] registration plates, using the model laid down in Part 1 of Annex III;
   (c) the windscreen wiper and washer systems, using the model laid down in Annex IV, Part 1, Section A;
   (d) the wheel guards, using the model laid down in Part 1 of Annex V;
   (e) the windscreen defrosting and demisting systems, using the model laid down in Part 1 of Annex VI;
   (f) the towing devices, using the model laid down in Part 1 of Annex VII;
   (g) the spray suppression system, using the model laid down in Annex VIII, Part 1, Section A;
   (h) the gear shift indicator, using the model laid down in Part 1 of Annex IX;
   (i) the vehicle access, using the model laid down in Part 1 of Annex X;
   (j) the reversing motion, using the model laid down in Part 1 of Annex XI;
   (k) the vehicle masses and dimensions, using the model laid down in Annex XIII, Part 1, Section A;
   (l) in case of hydrogen-powered vehicles, the hydrogen system (liquefied hydrogen storage system (LHSS) or compressed hydrogen storage system (CHSS), or the vehicle fuel system, incorporating LHSS, using the model laid down in Annex XIV, Part 1, Section A.

2. The application for the EU type-approval of a type of vehicle as regard the gear shift indicator referred to in point (h) of paragraph 1 shall be submitted together with a declaration of the manufacturer that the vehicle complies with the relevant requirements set out in this
Regulation and a certificate drawn up in accordance with the model set out in the Appendix to Part 1 of Annex IX.

3. The manufacturer shall, when requested by the approval authority or the technical service, make available, for test purposes, a vehicle representative of the type to be approved.

**Article 6**

**Granting the EU type-approval of a vehicle type as regards certain vehicle systems**

1. Where the requirements set out in Part 2 of Annexes II to XIII and in Annex XIV, Part 2, Sections D and E to this Regulation are met, the approval authority shall grant an EU type-approval and issue a type-approval number in accordance with the method set out in Annex IV of Commission Implementing Regulation (EU) 2020/683.

The type-approval authority shall not assign the same number to another vehicle type.

2. For the purpose of paragraph 1, the type-approval authority shall deliver an EU type-approval certificate, drawn up in accordance with Model B of Annex III to Commission Implementing Regulation (EU) 2020/683, and an Addendum set out in:

(a) Part 3 of Annex II for the item referred to in point (a) of Article 5(1);
(b) Part 3 of Annex III for the item referred to in point (b) of Article 5(1);
(c) Annex IV, Part 3, Section A for the item referred to in point (c) of Article 5(1);
(d) Part 3 of Annex V for the item referred to in point (d) of Article 5(1);
(e) Part 3 of Annex VI for the item referred to in point (e) of Article 5(1);
(f) Part 3 of Annex VII for the item referred to in point (f) of Article 5(1);
(g) Annex VIII, Part 3, Section A for the item referred to in point (g) of Article 5(1);
(h) Part 3 of Annex IX for the item referred to in point (h) of Article 5(1);
(i) Part 3 of Annex X for the item referred to in point (i) of Article 5(1);
(j) Part 3 of Annex XI for the item referred to in point (j) of Article 5(1);
(k) Annex XIII, Part 3, Section A for the item referred to in point (k) of Article 5(1); and
(l) Annex XIV, Part 3, Section A for the item referred to in point (l) of Article 5(1).
CHAPTER IV
EU SEPARATE TECHNICAL UNIT AND EU COMPONENT TYPE-APPROVALS WITH REGARD TO CERTAIN VEHICLE SYSTEMS AND COMPONENTS

Article 7
Application for the EU separate technical unit type-approval of systems and equipment

Applications for EU separate technical unit type-approval with regard to each of the following systems and equipment shall be drawn up in accordance with the respective model information document:

(a) the windscreen washer system, using the model laid down in Annex IV, Part 1, Section B;
(b) the spray suppression system, using the model laid down in Annex VIII, Part 1, Section B;
(c) the frontal protection system, using the model laid down in Part 1 of Annex XII;
(d) the aerodynamic device or equipment, using the model laid down in Annex XIII, Part 1, Section B.

Article 8
Granting the EU type-approval of a separate technical unit

1. Where the requirements set out in Part 2 of Annex IV to this Regulation with regard to the windscreen washer systems, Part 2 of Annex VIII with regard to the spray suppression systems, Part 2 of Annex XII with regard to the frontal protection systems and Annex XIII, Part 2, Section I with regard to the aerodynamic devices and equipment are met, the approval authority shall grant an EU separate technical unit type-approval for those types of systems and equipment, and issue a type-approval number in accordance with the method set out in Annex IV to Commission Implementing Regulation (EU) 2020/683.

The type-approval authority shall not assign the same number to another type of separate technical unit or equipment.

2. The EU type-approval certificates for the systems and equipment referred to in Article 5 shall follow Model C of Annex III to Commission Implementing Regulation (EU) 2020/683, and the Addendum set out in:

(a) Annex IV, Part 3, Section B for the system referred to in point (a) of Article 7;
(b) Annex VIII, Part 3, Section B for the system referred to in point (b) of Article 7;
(c) Annex XII, Part 3, Section B for the system referred to in point (c) of Article 7;
(d) Annex XIII, Part 3, Section B for the equipment referred to in point (d) of Article 7.
**Article 9**

Application for the EU component unit type-approval

Applications for EU component type-approval with regard to the following hydrogen components shall be drawn up in accordance with the model information document laid down in Annex XIV, Part 1, Section B:

(a) the liquefied hydrogen storage systems (LHSS), including their containers, pressure relief and shut-off devices, with respect to their safety performance and material compatibility;

(b) the compressed hydrogen storage systems (CHSS), including their containers and primary closing devices, comprising TPRD, check valve and automatic shut-off valves, with respect to their material compatibility.

**Article 10**

Granting the EU component type-approval

1. Where the requirements set out in Annex XIV, Part 2, Sections B, C and F, for components referred to in point (a) of Article 9, and Section F, for components referred to in point (b) of that Article, are met, the approval authority shall grant an EU component type-approval for the type of hydrogen component and issue a type-approval number in accordance with the method set out in Annex IV to Commission Implementing Regulation (EU) 2020/683.

The type-approval authority shall not assign the same number to another type of component.

2. The EU type-approval certificate for the components referred to in Article 9 shall follow Model C of Annex III to Commission Implementing Regulation (EU) 2020/683, and the Addendum set out in Annex XIV, Part 3, Section B.

**Article 11**

EU type-approval mark

1. The EU separate technical unit type-approval mark of a type of a system or equipment shall be composed and fixed in accordance with:

   (a) Annex IV, Part 3, Section C with regard to the system referred to in point (a) of Article 7;

   (b) Annex VIII, Part 3, Section C with regard to the system referred to in point (b) of Article 7;

   (c) Annex XII, Part 3, Section B with regard to the system referred to in point (c) of Article 7;

   (d) Annex XIII, Part 3, Section C with regard to the devices and equipment referred to in point (d) of Article 7.

2. The EU component type-approval mark of a type of a component referred to in Article 9 shall be composed and fixed in accordance with Annex XIV, Part 3, Section C.
CHAPTER V

FINAL PROVISIONS

Article 12

Transitional provision

1. With effect from 6 July 2022, type-approval authorities shall refuse to grant EU type-approval in respect of new types of vehicles, with regard to the statutory markings, which do not comply with the requirements set out in Part 2 of Annex II to this Regulation on or after 6 July 2022.

2. With effect from 7 July 2024, national authorities shall refuse the registration, placing on the market and entry into service of vehicles, which do not comply with the requirements set out in Part 2 of Annex II to this Regulation.

3. With effect from 6 July 2022, type-approval authorities shall refuse to grant EU type-approval in respect of new types of vehicles with regard to the space for mounting and fixing of the registration plates, which do not comply with the requirements set out in Part 2 of Annex III to this Regulation on or after 6 July 2022.

4. With effect from 7 July 2024, national authorities shall refuse the registration, placing on the market and entry into service of vehicles, which do not comply with the requirements set out in Part 2 of Annex III to this Regulation.

5. In accordance with Article 15(1) of Regulation (EU) 2019/2144, national authorities shall permit the sale and entry into service of vehicles, systems, components and separate technical units type-approved before 6 July 2022, and continue to grant extension of approvals to those vehicles, systems, components and separate technical units under the terms of Regulation (EC) No 78/2009, Regulation (EC) No 79/2009 or Regulation (EC) No 661/2009 and their implementing measures, as regards the subject matter covered in Annexes II to XIV to this Regulation.

Article 13

Derogations

1. By way of derogation from Article 6(1) of this Regulation, an EU type-approval may be granted for vehicles intended for the transport of indivisible loads, the dimensions of which exceed the maximum authorised dimensions set out in point 1.1. of Sections B, C and D of Part 2 of Annex XIII to this Regulation, in which case the type-approval certificate and the certificate of conformity shall clearly indicate that the vehicle is intended for the transport of indivisible loads only.

2. By way of derogation from Article 6(1) of this Regulation, Member States may grant national type-approval of vehicles produced in small series under Article 42 of Regulation (EU) 2018/858, and national individual vehicle approvals under Article 45 of that for vehicles exceeding the maximum authorised dimensions set out in point 1.1. of Sections B, C and D of Part 2 of Annex XIII to this Regulation.

Type-approvals under Article 42 of Regulation (EU) 2018/858 shall be subject to the quantitative annual limits set out in point 3 of Part A of Annex V to that Regulation.
Article 14
Provision of information

For the purpose of evaluating the need for further developments, manufacturers and type-approval authorities shall make available to the Commission upon request the information set out in Parts 1, 2 and 3 of Annex IX. The information shall be treated in a confidential manner by the Commission and its representatives.

Article 15
Amendments to Commission Implementing Regulation (EU) 2020/683

Annexes I, III, IV and VIII to Commission Implementing Regulation (EU) 2020/683 are amended in accordance with Annex XV to this Regulation.

Article 16
Entry into force

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,

For the Commission
The President
Ursula von der Leyen