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**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations**

**193rd session**

Geneva, 25–28 June 2024

Item 4.6.1 of the provisional agenda

**1958 Agreement:**

**Consideration of draft amendments to existing**

**UN Regulations submitted by GRSP**

Proposal for 04 series of amendments to UN Regulation No. 100 (Electric power trained vehicles)

 Submitted by the Working Party on Passive Safety[[1]](#footnote-2)\*

The text reproduced below was adopted by the Working Party on Passive Safety (GRSP) at its seventy-fourth session (ECE/TRANS/WP.29/GRSP/74, para. 23). It is based on ECE/TRANS/WP.29/GRSP/2023/35 as amended by annex V to the report. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration at their June 2024 sessions.

*Contents, list of annexes,* amend to read:

"Contents

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Regulation

1. Scope

2. Definitions

3. Application for approval

4. Approval

5. Part I: Requirements of a vehicle with regard to specific requirements for the electric power train

6. Part II: Requirements of a Rechargeable Electrical Energy Storage System (REESS) with regard
to its safety

7. Modifications and extension of the type approval

8. Conformity of production

9. Penalties for non-conformity of production

10. Production definitively discontinued

11. Names and addresses of Technical Services responsible for conducting approval tests and
of Type Approval Authorities

12. Transitional provisions

Annexes

1 Part 1 - Communication concerning the approval or extension or refusal or withdrawal of approval
or production definitively discontinued of a vehicle type with regard to its electrical safety pursuant
to Regulation No. 100

1 Part 2 - Communication concerning the approval or extension or refusal or withdrawal of approval
or production definitively discontinued of a REESS type as component/separate technical unit
pursuant to Regulation No. 100

1 Appendix 1

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2 Arrangements of the approval marks

3 Protection against direct contacts of parts under voltage

4 Verification of potential equalization

5A Isolation resistance measurement method for vehicle based tests

5B Isolation resistance measurement method for component based tests of a REESS

6 Confirmation method for function of on-board isolation resistance monitoring system

7A Verification method for testing authorities confirming document based isolation resistance
compliance of electrical design of the vehicle after water exposure

7B Vehicle-based test procedure for protection against water effects

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 Appendix 1 - Calibration of equipment for hydrogen emission testing

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9 REESS test procedures

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9F External short circuit protection

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9J Over-current protection

10 Provisions for a label for vehicles of categories M2/N2 and M3/N3 equipped with an
electric power train "

*Insert new paragraphs 5.5. to 5.5.3.,* to read:

"5.5. Identification of electric power trained vehicles.

5.5.1. On vehicles of the categories M2/N2 and M3/N3, equipped with a high voltage electric powertrain, labels shall be installed as specified in Annex 10.

5.5.1.1. The requirement of paragraph 5.5.1. shall be considered to be satisfied in the case that the requirement of paragraph 7.1.7. of UN Regulation No. 134 is satisfied.

5.5.2. For hybrid electric vehicles running on diesel or gasoline, the high voltage powertrain shall be considered its first energy source, independent of the capacity of the REESS.

5.5.3. These labels shall be placed on the front of the vehicle and on the left side as well as on the right side of the vehicle; for the side if available in vicinity of a front door. If there is no front door available, the label has to be placed on the first third of the vehicle length.

In addition, for vehicles of category M2 and M3, a label shall be fixed to the rear of the vehicle."

*Insert new paragraphs 12.5. to 12.9*., to read:

"12.5. As from the official date of entry into force of the 04 series of amendments, no Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type approvals under this UN Regulation as amended by the 04 series of amendments.

12.6. As from 1 September 2026, Contracting Parties applying this UN Regulation shall not be obliged to accept UN type approvals to the preceding series of amendments that were first issued on or after 1 September 2026.

12.7. Until 1 September 2027, Contracting Parties applying this UN Regulation shall accept UN type approvals to the preceding series of amendments that were first issued before 1 September 2026.

12.8. As from 1 September 2027, Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the preceding series.

12.9 Notwithstanding paragraphs 12.8, Contracting Parties applying this Regulation shall continue to accept type approvals issued according to the 03 series of amendments to this Regulation, for the vehicles/vehicle systems which are not affected by the changes introduced by the 04 series of amendments."

*Paragraph 12.5 and 12.6 (former),* renumber as paragraph 12.10 and 12.11.

*Annex 2,* amend to read:

"Annex 2

 Arrangements of the approval marks

# Model A

# (See paragraph 4.4. of this Regulation)

# Figure 1

 a = 8 mm min.

**100 R - 042492**



The approval mark in Figure 1 affixed to a vehicle shows that the road vehicle type concerned has been approved in the Netherlands (E 4), pursuant to Regulation No. 100, and under the approval number 042492. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of Regulation No. 100 as amended by 04 series of amendments.

# Figure 2



**100 RES - 042492**



a = 8 mm min.

The approval mark in Figure 2 affixed to a REESS shows that the REESS type ("ES") concerned has been approved in the Netherlands (E 4), pursuant to Regulation No. 100, and under the approval number 042492. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of Regulation No. 100 as amended by 04 series of amendments.

# Model B

(See paragraph 4.5. of this Regulation)



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| --- | --- |
| **100** | **04 2492** |
| **42** | **00 1628** |



a = 8 mm min.

The above approval mark affixed to a vehicle shows that the road vehicle concerned has been approved in the Netherlands (E4) pursuant to Regulations Nos. 100 and 42[[2]](#footnote-3). The approval number indicates that, at the dates when the respective approvals were granted, Regulation No. 100 was amended by the 04 series of amendments and Regulation No. 42 was still in its original form."

*Introduce a new Annex 10,* to read:

"**Annex 10**

 **Provisions for a label for vehicles of categories M2/N2 and M3/N3 equipped with an electric power train.**

(Paragraph 5.5.1 to 5.5.3. of this Regulation)



The label shall be weather resistant.

The centre zone indicates the first energy source.

The upper zone indicates the second energy source.

Layout and symbols shall be in accordance with ISO 17840-4:2018.

The colour and dimensions of the label shall fulfil the following requirements:

Colours:

Background: Orange, RGB code 255, 165, 0

Border: white reflecting

Letters: white reflecting

Dimensions:

Sticker width: ≥ 110 mm

Sticker height: ≥ 80 mm"

1. \* In accordance with the programme of work of the Inland Transport Committee for 2024 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate. [↑](#footnote-ref-2)
2. The latter number is given only as an example. [↑](#footnote-ref-3)