

**Economic and Social Council**Distr.: General  
22 September 2023

Original: English

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**Economic Commission for Europe****Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Passive Safety****Seventy-fourth session**

Geneva, 4–8 December 2023

Item 14 of the provisional agenda

**UN Regulation No. 137 (Frontal impact with focus on restraint systems)****Proposal for the 04 series of amendments of UN Regulation  
No. 137 (Frontal collision with focus on restraint systems) \*****Submitted by the expert from Japan**

The text reproduced below was prepared by the expert from Japan. It is to amend the requirement concerning for the thorax compression criterion (ThCC) of the 5th Female dummy in the case of vehicles of category N<sub>1</sub>. It is based on GRSP-72-06 distributed at the seventy-second session of the Working Party on Passive Safety (GRSP). The modifications to the current text of the UN Regulation (including draft 03 series of amendments ECE/TRANS/WP.29/2023/111) are marked in bold for new or strikethrough for deleted characters.

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\* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2023 (A/77/6 (Sect. 20), table 20.6), 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.



## I. Proposal

*Paragraph 5.2.1.2.3., amend to read:*

"**5.2.1.2.3.** The thorax compression criterion (ThCC) shall not exceed 34 mm in the case of vehicles of categories of **M<sub>1</sub> and N<sub>1</sub> with a maximum permissible mass not exceeding 2,800 kg**, and 42 mm in the case of vehicles of category N<sub>1</sub> **with a maximum permissible mass exceeding 2,800 kg.**"

*Paragraph 12.1., amend to read:*

"12.1. As from the official date of entry into force of the **04 03**-series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type-approvals under this Regulation as amended by the **04 03**-series of amendments."

*Paragraphs 12.4. to 12.5., amend to read:*

"12.4. **As from 1 September [2027], Contracting Parties applying this Regulation shall not be obliged to accept type-approvals of vehicles according to the preceding series of amendments, first issued after 1 September [2027].** ~~Contracting Parties applying this Regulation shall not refuse to grant type-approvals according to any preceding series of amendments to this Regulation or extensions thereof.~~

12.5. **Contracting Parties applying this Regulation shall continue to accept type-approvals of vehicles according to the preceding series of amendments, first issued before 1 September [2027], provided the transitional provisions in these respective previous series of amendments foresee this possibility.** ~~Notwithstanding the transitional provisions above, Contracting Parties who start to apply this Regulation after the date of entry into force of the most recent series of amendments are not obliged to accept type-approvals which were granted in accordance with any of the preceding series of amendments to this Regulation.~~"

*Insert new paragraphs 12.6. to 12.7., to read:*

"**12.6.** **Contracting Parties applying this Regulation may grant type approvals according to any preceding series of amendments to this Regulation.**

**12.7.** **Contracting Parties applying this Regulation shall continue to grant extensions of existing approvals to any preceding series of amendments to this Regulation.**"

*Paragraph 12.6.(former), renumber as paragraph 12.8.*

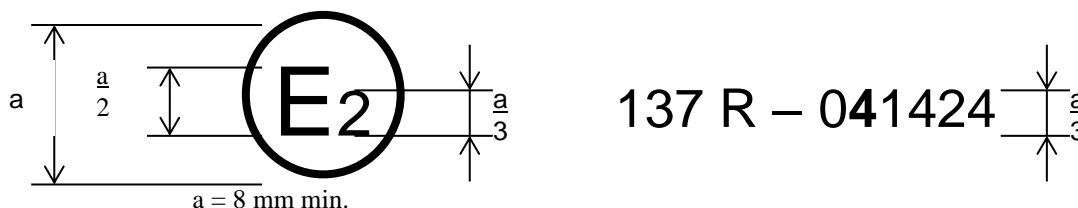
Annex 2, amend to read:

## "Annex 2

### Arrangements of approval marks

Model A

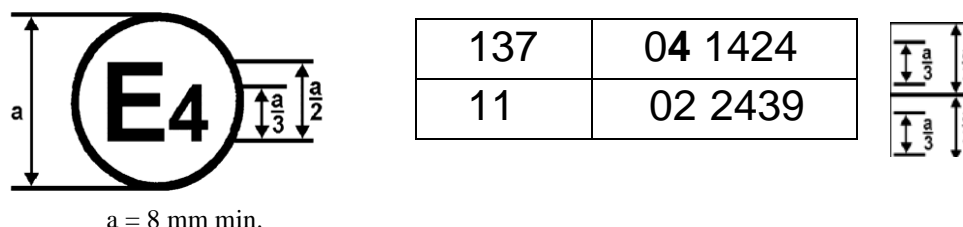
(See paragraph 4.4. of this Regulation.)



The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to the protection of the occupants in the event of a frontal collision, been approved in France (E 2) pursuant to Regulation No. 137 under approval number 0341424. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No. 137 034 series of amendments.

Model B

(See paragraph 4.5. of this Regulation.)



The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to Regulations Nos. 137 and 11.<sup>1</sup> The first two digits of the approval numbers indicate that, at the dates when the respective approvals were granted, Regulation No. 137 incorporated the 034 series of amendments and Regulation No. 11 incorporated the 02 series of amendments."

## II. Justification

- To protect older occupants aged 65 or above, the thorax compression criterion (ThCC) for the hybrid III 5<sup>th</sup> percentile female dummies (AF05) is 34 mm in vehicles of category M<sub>1</sub>. Japan considers it desirable to apply the same AF05 dummy ThCC of 34 mm to a certain range of vehicles of category N<sub>1</sub> which may often be used by private consumers for commuting when this criterion will be achievable.

<sup>1</sup> The latter number is given only as an example.

2. Vehicles of category N<sub>1</sub> were included in the scope of UN Regulation No. 137 by supplement 3 to the 01 series of amendments. Under the Japanese national regulation, a full-overlap frontal crash test has been required for N<sub>1</sub> vehicles with a maximum permissible mass not exceeding 2,800 kg in advance to the extension of the scope of UN Regulation No. 137. Moreover, in Japan, it had been determined to amend the national regulation so that, from 1 September 2027, the ThCC for AF05 dummies in N<sub>1</sub> vehicles with a maximum permissible mass not exceeding 2,800 kg will be the same as that in M<sub>1</sub> vehicles, i.e., 34 mm. Therefore, we consider it necessary to amend UN Regulation No. 137 in the same way.
  
3. The expert from Japan introduced a presentation on this subject at the sixty-sixth session of GRSP (GRSP-66-29). As the expert from the European Commission supported Japan's policy and no objection was expressed at that session, this led Japan to propose the amendment to the seventy-second session of GRSP.

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