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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on General Safety Provisions****118th session**

Geneva, 30 March-3 April 2020

Item 3 of the provisional agenda

UN Regulation No. 35 (Foot controls)**Proposal for the 01 series of amendments to UN Regulation
No. 35 (Foot controls)****Submitted by the expert from the International Organization of Motor
Vehicle Manufacturers***

The text reproduced below was prepared by the expert from the International Organization of Motor Vehicle Manufacturers (OICA) to clarify the measurement method of the lateral distance of the pedals to the nearest "wall" to the left. It is based on working document ECE/TRANS/WP.29/2019/93, submitted to the 179th session of the World Forum for Harmonization of Vehicle Regulations (WP.29) session and reworked as agreed based on GRSG-117-35 in the 117th session of the Working Party on General Safety Provisions (GRSG) (see report ECE/TRANS/WP.29/GRSG/96, paras. 15-16). The modifications to the current text of UN Regulation No. 35 are marked in bold and strikethrough characters.

* In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37), 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 1, footnote 1, amend to read:

- ¹ **As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev.6, para. 2 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html**"

Paragraph 4.2., amend to read:

- "4.2. An approval number shall be assigned to each type approved. Its first two digits **(at present 01)** ~~(at present 00 for the Regulation in its original form)~~ shall indicate the series of amendments incorporating the most recent major technical amendments made to the UN Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another vehicle type."

Paragraph 4.4.1., footnote 2, amend to read:

- ² **The distinguishing numbers of the Contracting Parties to the 1958 Agreement are reproduced in Annex 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev. 6, Annex 3 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html**"

Paragraph 5.5., amend to read:

- "5.5. The distance, **shown at "F" in annex 4**, between the orthogonal projections of the service-brake-pedal and the clutch-pedal bearing surfaces on to the reference plane "P" shall be ≥ 50 mm."

Paragraph 5.6., amend to read:

- "5.6. The distance, **shown at "G" in annex 4**, between the contour points of the projection of the clutch pedal on to plane "P" and the intersection of the nearest wall with plane "P" shall be ≥ 50 mm."

Paragraph 5.7., amend to read:

- "5.7. The distances, respectively shown as "H" and "J" in Annex 4, between the projection of the service-brake pedal on to the reference plane "P" and the intersection of each of the walls with that plane shall be ≥ 130 mm to the right and ≥ 160 mm to the left for vehicles with three pedals, and ≥ 130 mm to the right and ≥ 120 mm to the left for vehicles with two pedals.

In the case of a foot rest as declared by the manufacturer, installed for the driver's left foot, the measurements for "J" and "G" in Annex 4 shall ignore the foot rest. The distance, shown at "K" in annex 4, between the contour points of the projection of the left most pedal on to plane "P" and the intersection of the footrest with plane "P" shall be ≥ 50 mm."

Paragraph 7, amend to read:

"7. Conformity of production

The conformity of production procedures shall comply with those set out in the Agreement, Schedule 1 (E/ECE/TRANS/505/Rev.3), with the following requirements:

..."

Insert new paragraphs 10. to 10.4., to read:

"10. Transitional provisions

- 10.1. **As from the official date of entry into force of the 01 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 01 series of amendments.

- 10.2. As from 1 September [2020], Contracting Parties applying this Regulation shall not be obliged to accept type approvals to the preceding series of amendments, first issued after 1 September [2021].
- 10.3. Contracting Parties applying this Regulation shall continue to accept type approvals issued according to the preceding series of amendments to this Regulation first issued before 1 September [2021].
- 10.4. 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."

Paragraph 10. (former), renumber as paragraph 11.

Annex 1, item 5, amend to read:

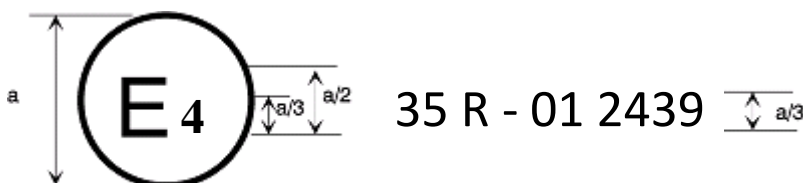
"5. Brief description of the vehicle type as regards the arrangement of foot controls and foot rest....."

Annex 2, amend to read:

"Arrangements of approval marks

Model A

(See paragraph 4.4. of this Regulation)

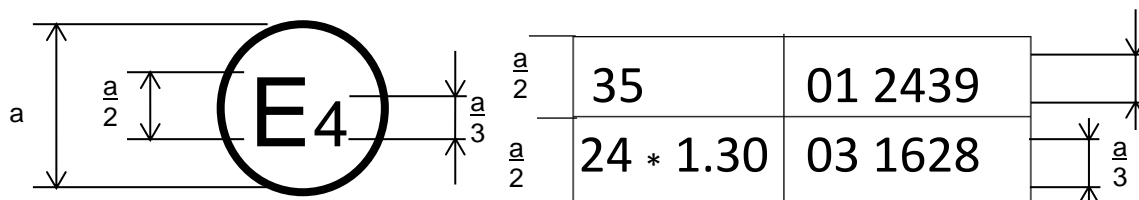


a = 8 mm min

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to the arrangement of foot controls, been approved in the Netherlands (E 4) under approval number 012439. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of UN Regulation No. 35, as amended by the 01 series of amendments.

Model B

(See paragraph 4.5. of this UN Regulation)



a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to UN Regulation Nos. 35 and 24.¹ (In the case of the latter UN Regulation the corrected absorption co-efficient is 1.30 m⁻¹). The first two digits of the approval numbers indicate that, at the date on which the respective approvals were granted, UN Regulation No. 35 included the 01 series of amendments and UN Regulation No. 24 included the 03 series of amendments.

¹ The second number is given merely as an example."

Annex 3, shall be deleted

Insert a new Annex 3, to read:

"Annex 3

Procedure for determining the "H" point and the actual torso angle for seating positions in motor vehicles¹

Appendix 1 - Description of the three dimensional "H" point machine¹

Appendix 2 - Three-dimensional reference system¹

Appendix 3 - Reference data concerning seating positions¹

¹ The procedure is described in Annex 1 and its Appendices 1, 2 and 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3) (document ECE/TRANS/WP.29/78/Rev.6 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html)"

Annex 4, amend to read:

"Annex 4

Arrangement of foot controls

Figure 1a

Two pedals – Automatic transmission **without** footrest

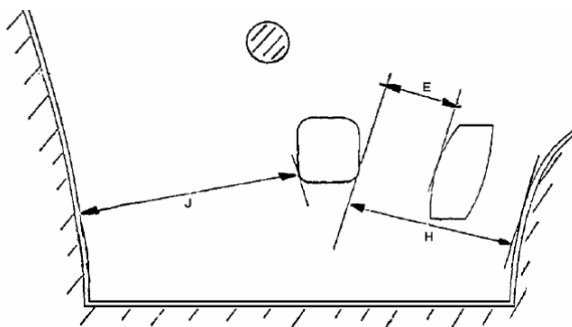
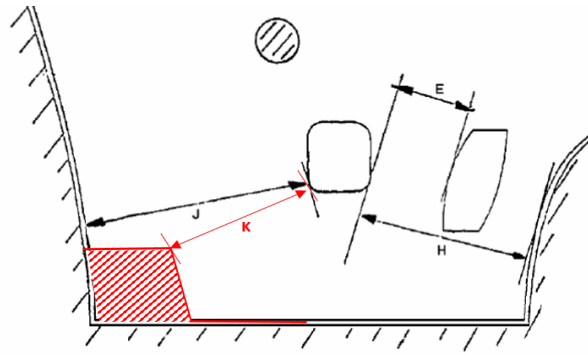


Figure 1b

Two pedals – Automatic transmission **with** footrest



	<i>max.</i>	<i>min.</i>
E	100	50
H	-	130
J	-	120
K	-	50

Figure 2a
Three-pedals – Conventional transmission **without Footrest**

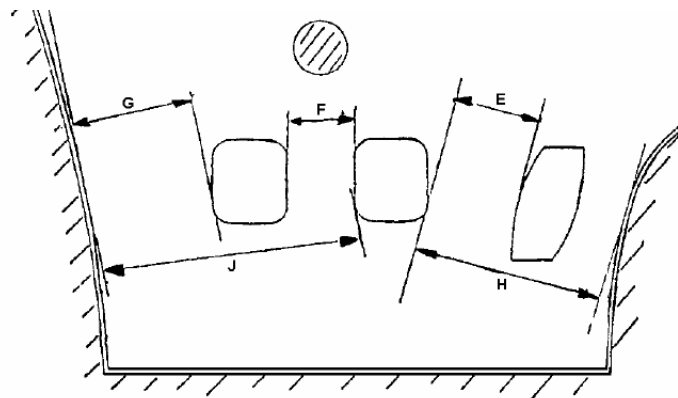
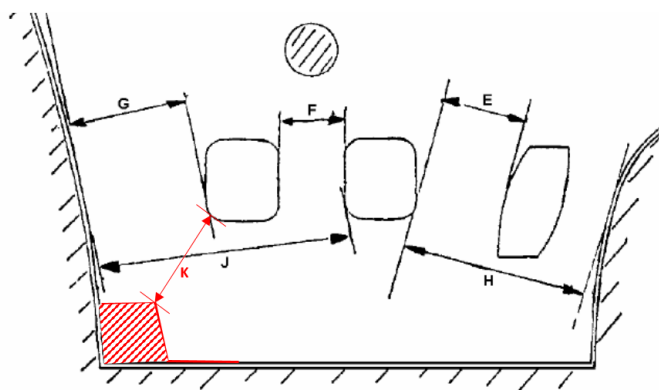


Figure 2b
Three-pedals - Conventional transmission with Footrest

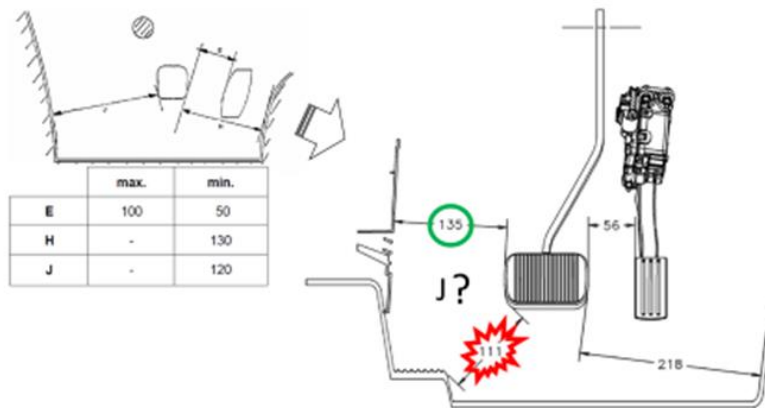


	<i>max.</i>	<i>min.</i>
E	100	50
F	-	50
G	-	50
H	-	130
J	-	160
K	-	50

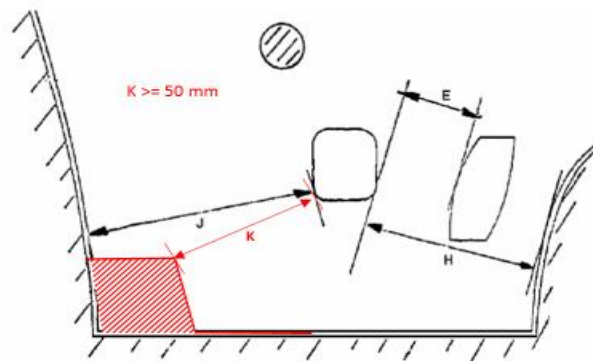
II. Justification

1. Paragraphs 5.5 and 5.6 are amended by adding references to "F" and "G" for clarification.
2. It should be possible to place the left foot in a position of rest on the floor surface or foot rest such that it is not trapped by the pedals. It should also be possible to actuate any pedal over its full travel without inadvertently operating floor-switches or other foot controls.
3. This proposal hence clarifies the measurement method for the lateral distances (J and G) of the pedals to the nearest "wall" to the left. For safety and comfort reasons foot rests are installed for the drivers' left foot. The rest plane of such foot rests can intersect the measurement plane "P". This proposal clarifies that, in such cases, the required clearance for the left foot is measured on top of the foot rest, rather than between the left most pedal and the foot rest itself.

Example for the needed clarification – Measurement of J in 2-pedal system:

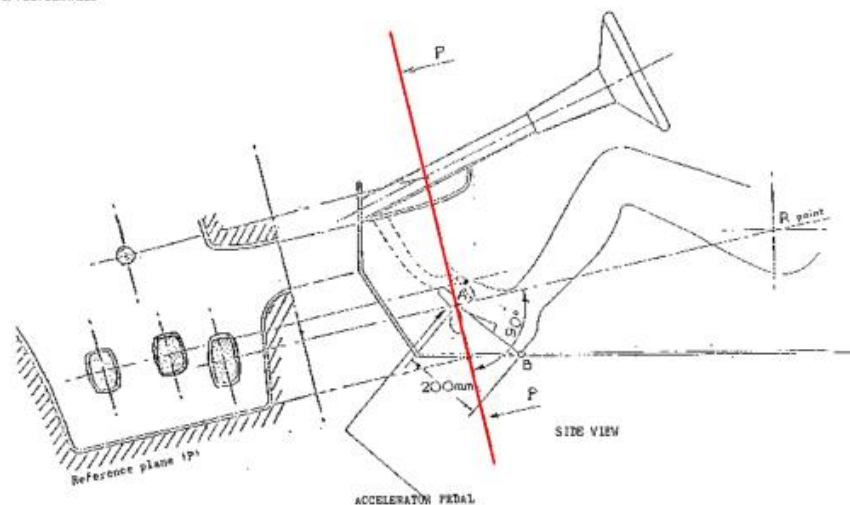


4. To ensure clearance of travel for the left most pedal (either service brake or clutch), an additional minimum distance between this pedal and the foot rest is introduced.



5. Distance K is introduced in Annex 4 for clarification. All measurements for distances to Annex 4 in UN Regulation No. 35 are measured on the reference Plane P. This reference plane is not a vertical transverse plane. The measurements taken on the Plane P are not taken in transverse or horizontal direction, since the smallest distance to left or right is the more relevant. The proposed measuring method for K is in line with other measured distances between fixed and movable parts in the regulation. A projection of the footrest onto plane P would contradict the wording of UN Regulation No. 35 where fixed parts are intersected with plane P. Accordingly in approval drawings foot rests are usually also illustrated as sections with plane P.

Fig. 1
ARRANGEMENT OF FOOT CONTROLS



6. The proposal is introduced as a new series of amendments because it may add new constraints to some manufacturers.
7. The proposal includes the changes by UN secretariat made to section 4 and Annex 2 regarding approval marking.
8. The proposal updates Annex 3 to reference R.E.3 for the determination of R and H point as well as for the three-dimensional reference system.