

**COMMENTS TO THE OICA PROPOSAL (TRANS/WP.29/GRSP/2003/2)
FOR AMENDMENT TO ECE R14**

Prepared by the expert from Germany

1. (OICA) PROPOSAL

Paragraph 6.3.2, amend to read:

6.3.2 The tractive force shall be applied in a direction corresponding to the seating position at an angle of 10 degrees +/- 5 degrees above the horizontal in a plane parallel to the median longitudinal plane of the vehicle. **A preload of 1000N +/- 250N may be applied; this preload shall be included in the total test load."**

Comments and recommendation:

Regulation No. 14 requires loads depending to the different vehicle classes in a range as described in the following table:

Vehicle category	3 point belt	Lap belt	Additional seat load, if at least one anchorage is fixed to the seat structure
M1/N1	13500 N	22250 N	20 x mass of the seat
M2/N2	6750 N	11100 N	10 x mass of the seat
M3/N3	4500 N	7400 N	6,6 x mass of the seat

Respecting the large range of loads and avoiding conflicts with the control of existing Reg.14 hydraulic testing machines we recommend to align the text of ECE- Regulation No. 14 with the FMVSS procedure as follows:

Paragraph 6.3.2, amend to read:

6.3.2 The tractive force shall be applied in a direction corresponding to the seating position at an angle of 10 degrees +/- 5 degrees above the horizontal in a plane parallel to the median longitudinal plane of the vehicle.
A preload of 10 % with a tolerance of [+/- 30%] of the target load shall be applied; the load shall be increased to 100% of the relevant target load.

2. (OICA) PROPOSAL

Paragraph 6.3.3, amend to read:

"6.3.3 Full application of the load shall be achieved as rapidly as possible, **and within a maximum of 4 seconds**. The belt anchorages must withstand the specified load for not less than 0.2 second."

Comments and recommendation:

The existing text of ECE- Regulation No. 14 requires a load application, see paragraph 6.3.3., described as follows:

" Full application of the load shall be achieved as rapidly as possible. The belt anchorages must withstand the specified load for not less than 0.2 second. "

The proposed load application **within a maximum of 4 seconds** may be useful for the test of anchorages of real passenger cars, but the vehicle classes other than M1/N1 should also kept in mind.

We have doubts if the proposed load speed is useful for vehicles other than real passenger cars. Therefore we recommend to align ECE-Regulation 14 in a first step with the requirements of FMVSS as follows:

6.3.3 Full application of the load shall be achieved as rapidly as possible, and within a maximum load application time of 30 seconds.
With the agreement of the manufacturer the application of the load may be achieved within 4 seconds.
The belt anchorages must withstand the specified load for not less than 0.2 second.

3. (OICA) PROPOSAL

Paragraph 6.3.4, amend to read:

"6.3.4 Traction devices to be used in the tests described in Paragraph 6.4 below are shown in Annex 5. **The devices shown in Annex 5 figure 1 are placed onto the seat cushion and then pushed back into the seat back while the belt strap is pulled tight around it. The device shown in Annex 5 figure 2 is placed in position, the belt strap is fitted over the device and pulled tight.**
The arrangement of the devices is shown in Annex 5 figures 4 and 5.

Annex 5

Add new figures 4 and 5, to show the arrangement of the traction devices.

Annex 5, figure 2

Amend to specify the position for applying the force (i.e. 65 mm from the rear face).

Comments and recommendation:

The proposal requires a placement of the shoulder traction device using the phrase "pushed back into the seat back". We agree with the proposal.

But to avoid interaction between the lap belt traction device and the shoulder belt traction device and to avoid that the lap belt traction device can be used as a support of the back rest during the pull test, we should make clear that the technical service should observe such kind of manipulations. We recommend adding a sentence like:

The positioning of the traction device shall avoid any mutual influences during the pull test which adversely affects the load and load distribution.

The proposed shoulder belt traction device with a hole, located 65 mm from the rear side leads to an unstable situation during the pull test and the traction device will change the position during the test. The reproducibility of the test is not so good and therefore we recommend locating the pivot point 125 mm from the rear face of the traction device.

For a proper fixing of the strap and to avoid any drop off of the straps during the pull test, it may be permitted to add two land edges and /or bolts to the shoulder belt traction device .

In case of the use of the lap belt traction device it should be allowed to use also the smaller traction device as shown in FMVSS with a width of 10" or 254 mm. This modification is helpful in case of the test of anchorages of a seat bench, where three or four traction devices can not be installed in the tested vehicle. In addition we remember that we have introduced a width of effective anchorages of 240 mm for special seating positions and this can be tested using the smaller traction device too.

Keeping in mind the above mentioned comments we propose to change the text as follows:

Paragraph 6.3.4, amend to read:

"6.3.4 Traction devices to be used in the tests described in Paragraph 6.4 below are shown in Annex 5. **The devices shown in Annex 5 figure 1 are placed onto the seat cushion and then pushed back into the seat back while the belt strap is**

pulled tight around it. The device shown in Annex 5 figure 2 is placed in position, the belt strap is fitted over the device and pulled tight.

Instead of the lap belt traction device a similar device with a width of 254 mm shown in Annex 5 figure 1A may be used also.

The positioning of the traction device shall avoid any mutual influences during the pull test which adversely affects the load and load distribution.

Annex 5

Add a new figures 1a for a small lower traction device.

Annex 5, figure 2

Amend to specify the position for applying the force (i.e. 125 ±20 mm from the rear face).

Annex 5

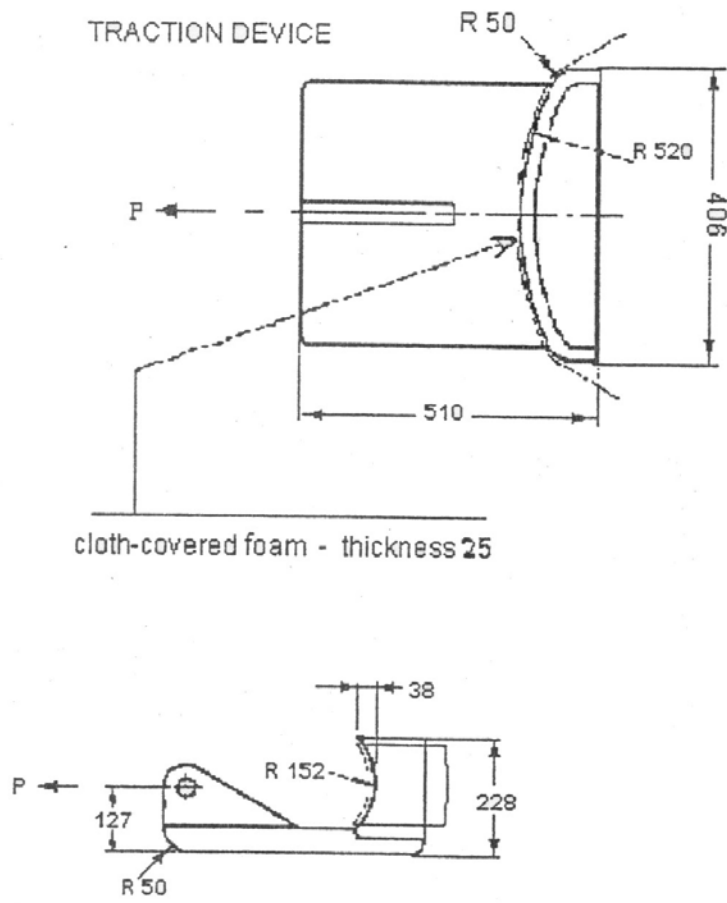
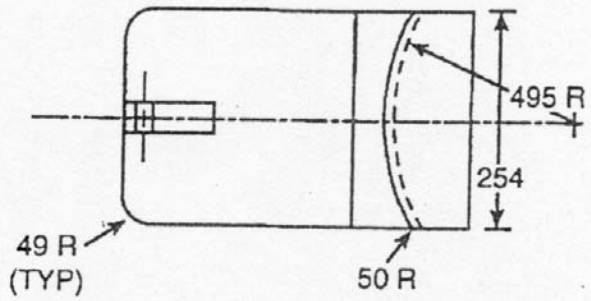


Figure 1



NOTES:

1. Block Covered by
25 Med. Density Canvas
Covered Foam Rubber

2. All Dimensions in
millimeters (mm)

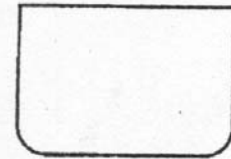
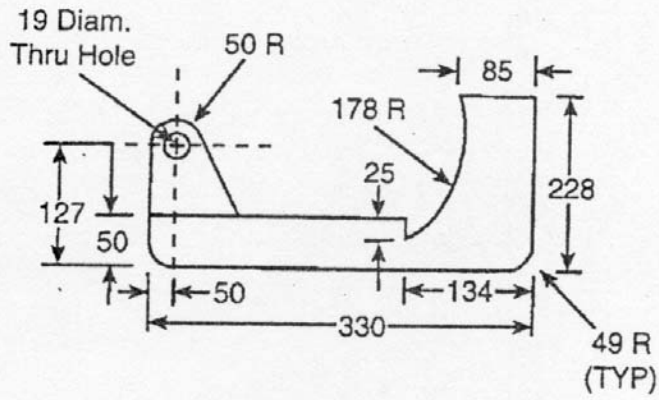
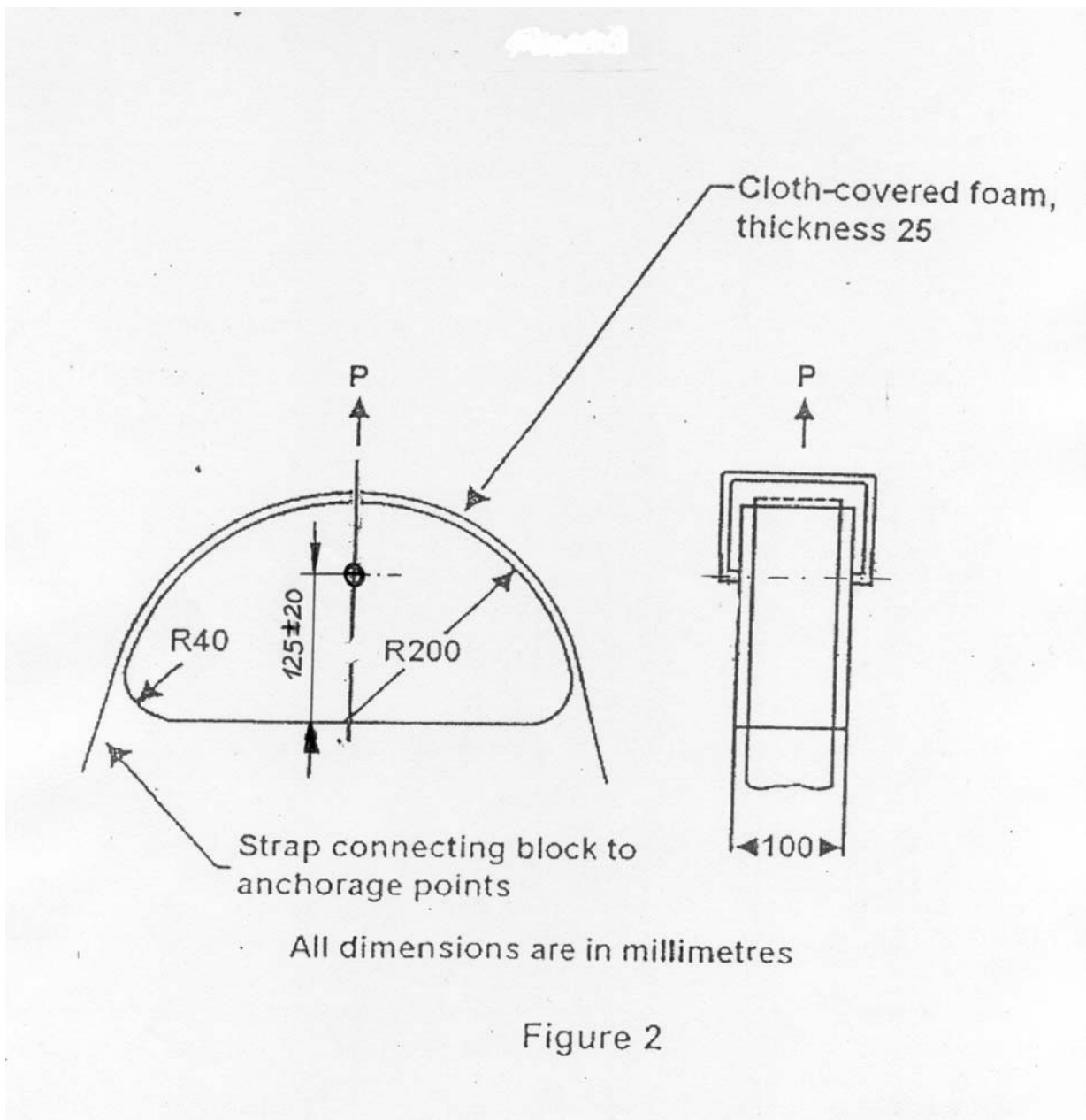
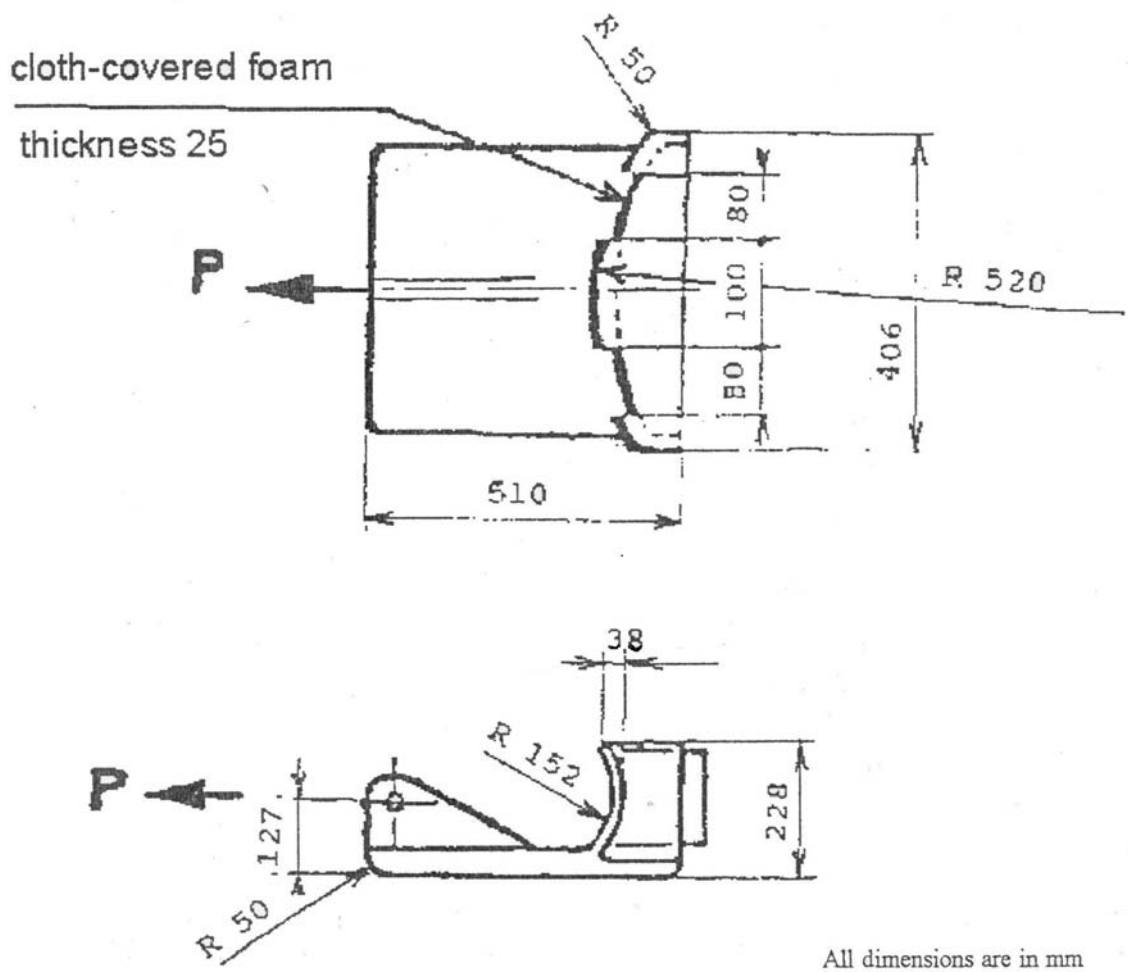


Figure 1a



For the fixing of the strap the shoulder belt traction device may be modified by adding of two land edges and /or some bolts to avoid any drop off of the strap during the pull test.



All dimensions are in mm

Figure 3