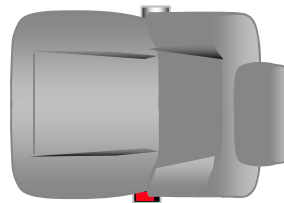


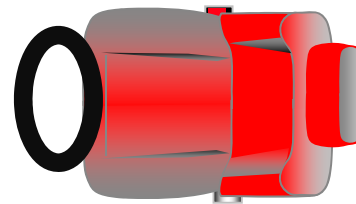
Explanation document for GRSP/2015/16 and GRSP-57-03 for restrain system approval

Current ECE R 16/06 Supplement 5 **Driver seat** Proposed GRSP/2015/16e

6.4.1.4. ...Chest to steering wheel contact,
in case ECE-R 12 and ≤ 24 km/h



7.7.1.5. The seat of an occupant in the front shall be in its most forward driving or travelling position according to the dimensions of the manikin



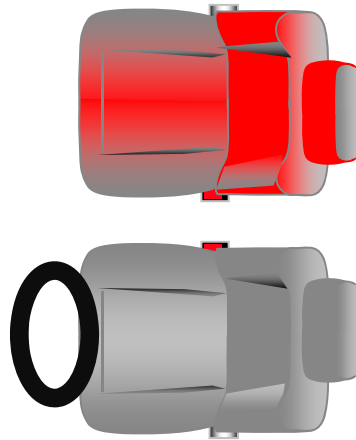
Explanation document for GRSP/2015/16 for restrain system approval

Current ECE R 16/06 Supplement 5 **Passenger seat** Proposed GRSP/2015/16e

6.4.1.4. ...no part of the torso or the head of the manikin used in the dynamic test would have come into contact with any forward rigid part of the vehicle

7.7.1.5. The seat of an occupant in the front shall be in its most forward driving or travelling position according to the dimensions of the manikin

8.1.6. For the front outboard and the front centre seating positions shown in Annex 16 and marked with the symbol *, lap belts of the type specified on that annex shall be considered adequate where the windscreen is located outside the reference zone defined in Annex 1 to Regulation No. 21.



"6.4.1.3.3. In the case of a safety-belt intended to be used in ~~an outboard front~~ a seating position protected by an airbag ... " *

6.4.1.4.1.2. ...no contact of the head or of the chest with any rigid part of the vehicle in front of the dummy would be allowed, provided contact with vehicle interior does not occur at a speed higher than 24 km/h and no contact of the manikin's head with its knees takes place.

8.1.6.1. ...
Moreover, in that case, the contact of the upper part of the manikin with the interior of the passenger compartment is allowed if the energy absorption requirements defined in Regulation No. 21 ... are fulfilled."

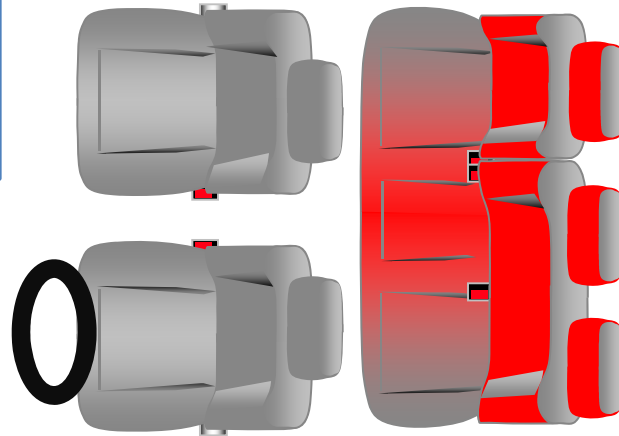
*ECE R 94 Annex IB footnote is today not considering the requirements for biomechanical benefits as tested and assessed today.

Explanation document for GRSP/2015/16 for restrain system approval

Current ECE R 16/06 Supplement 5 **Rear seat**

Proposed GRSP/2015/16e

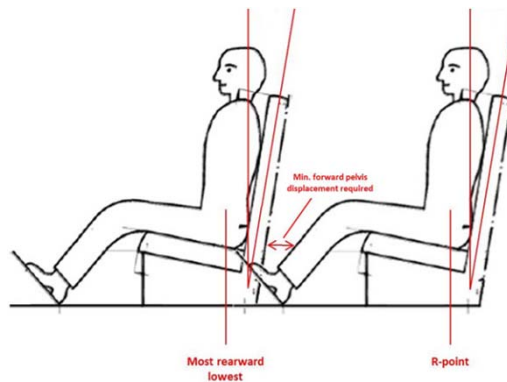
6.4.1.4. ...no part of the torso or the head of the manikin used in the dynamic test would have come into contact with any forward rigid part of the vehicle



6.4.1.4.1.2. ...no contact of the head or of the chest with any rigid part of the vehicle in front of the dummy would be allowed, provided contact with vehicle interior does not occur at a speed higher than 24 km/h and no contact of the manikins head with its knees takes place.

For the assessment of the requirements... the seat of the tested manikin and, if applicable, the seat in front of the manikin shall be considered to be in the positions specified in paragraph 7.7.1.6. below."

6.4.1.3.2.the forward displacement of the manikin shall be between ... 80 and 200 mm at pelvic level ..



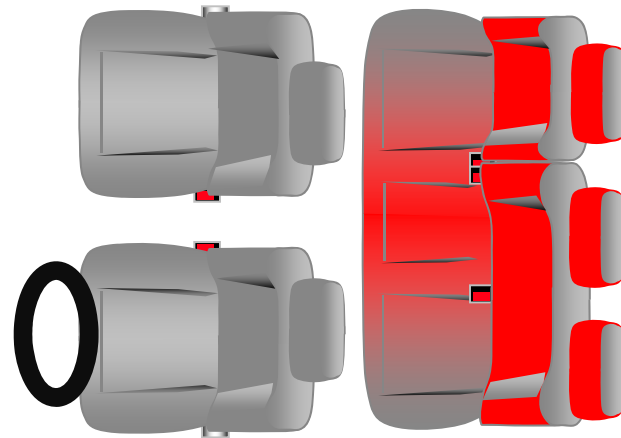
"7.7.1.6. For the assessment ... the seat of an occupant in the front shall be in its most forward driving or travelling position according to the dimensions of the manikin. ...

The seat in front of a tested seat shall be adjusted to the most rearward and lowest position appropriate for any contact with the manikin installed on the rear seat, then shifted forward for minimal pelvis displacement according to paragraph 6.4.1.3.2. and with a seat back angle at 10°, as derived from the 3-D H Point machine (Annex 19, Figure 1).

This can be proven with a contour on CAD or drawing."

Explanation document for GRSP/2015/16 for restrain system approval

Current ECE R 16/06 Supplement 5 **Rear seat** Proposed GRSP/2015/16e



8.1.6.1. For the rear seat positions, if the restraint system .. without the vehicle environment as defined in paragraph 7.7.1., the installation conditions in the vehicle shall be verified for the compatibility with those defined in the Communication form for the approval of the restraint system.

Moreover, in that case, the contact of the upper part of the manikin with the interior of the passenger compartment is allowed if the energy absorption requirements defined in Regulation No. 21 or Regulation No. 17 are fulfilled."

Explanation document for GRSP/2015/16 for restrain system approval

Current ECE R 16/06 Supplement 5

Proposed GRSP-2015-16

2.2.3. Results

Test results shall meet the requirements set out in paragraph 6.4.1.3.1. ... during a test performed with conditioning according to paragraph 1.6.1. of this annex by means of a simplified adapted method.

"2.2.3. Results

...

A simplified, adapted method could be, e.g. the measurement of the speed at the chest reference point when its forward displacement is at 300 mm, **the use of a reference chest speed measured at 300 mm forward displacement carried out in a test without an airbag in front of it, during the conformity of production test to be considered in the control of conformity control plan.**"