



European Association of Automotive Suppliers

Lower tether straps in R129

Paris, 29 June 2022

INTRODUCTION OF LOWER TETHERS IN R129



§ 2.12. “Anti-rotation device”

Means a device intended to limit the rotation of the Enhanced Child Restraint System during a vehicle impact and consisting of:

- (a) A top-tether strap; or
- (b) A support-leg; and/or
- (c) A lower tether strap**

Meeting the requirements of this Regulation and fitted to an ISOFIX anchorage system and ISOFIX top tether anchorages or vehicle floor contact surface meeting the requirements of UN Regulation No. 14 or UN Regulation No. 145.

An "Anti-rotation device" for a "specific vehicle" Belted Enhanced Child Restraint System may comprise a top tether, a support leg, and/or lower tether strap, or any other means capable of limiting the rotation.

NEW DEFINITIONS IN R129



- § 2.63. "*Lower tether strap*" means a webbing strap (or equivalent) which extends from the lower area of a Specific Vehicle Belted Enhanced Child Restraint System to the lower tether anchorage, and which is equipped with an adjustment device, a tension-relieving device, and a lower tether connector.
- § 2.63.1 "*Lower tether anchorage*" means a feature fulfilling the requirements of UN Regulation No. 14 or UN Regulation No. 145, such as a bar, located in a defined zone, designed to accept a lower tether connector, and transfer its restraint force to the vehicle structure.
- § 2.63.2. "*Lower tether connector*" means a device intended to be attached to a lower tether anchorage or lower tether attachment.
- § 2.63.3. "*Lower tether hook*" means a lower tether connector typically used to attach a lower tether strap to a lower tether anchorage as defined in figure 3(c) of § 6.3.4.2.3.
- § 2.63.4. "*Lower tether attachment*" is a device to secure the lower tether strap to the Specific Vehicle Belted Enhanced Child Restraint System.

SYMBOL FOR LOWER TETHER ANCHORAGE



§ 4.13 (c)., amend to read:

The position and if necessary, the routing of top tethers and lower tethers, or other means of limiting Enhanced Child Restraint System rotation requiring action by the user, shall be indicated using one or more of the following symbols as appropriate:

Insert symbol of lower tether only



REQUIREMENTS FOR LOWER TETHERS



§ 6. General specifications

§ 6.3.4.2.3.

Figure 3(c)

ISOFIX top tether **or Lower tether** connector (hook type) dimensions

§ 6.3.6. Specific vehicle belted Enhanced Child Restraint System lower tether strap specifications

§ 6.3.6.1. The lower tether strap shall be supported by webbing (or its equivalent), having a provision for adjustment and release of tension.

§ 6.3.6.2. Lower tether strap length

Enhanced Child Restraint System lower tether strap length shall be at least [700 mm]; including Lower tether hook if present.

REQUIREMENTS FOR LOWER TETHERS



§ 6. General specifications

§ 6.3.6.3. No-slack indicator

The lower tether strap or the Enhanced Child Restraint System shall be equipped with a device that will indicate that all slack has been removed from the strap. The device may be part of an adjustment and tension relieving device.

§ 6.3.6.4. The lower strap, including its provisions for adjustment and release of tension, shall withstand a load of [2500 N].

§ 6.3.6.5. Dimensions

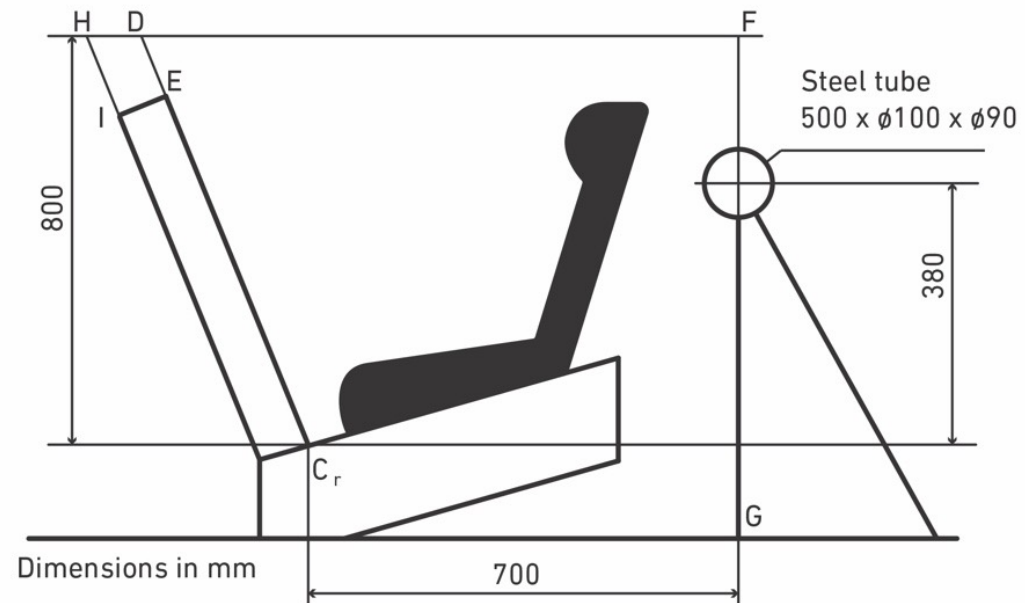
Engagement dimensions for lower tether hooks are shown in Figure x.

MISUSE TEST



Amend 6.6.4.4.1.2.1.

Where a test is conducted with paragraphs 6.6.4.1.6.1.1. or paragraph 6.6.4.1.6.1.2. or paragraph 6.6.4.1.8.2. above, only the second test results without 100 mm diameter bar will be considered. **A tolerance of +10 per cent shall be applicable to the head excursion value distance between Cr point and plane DF and the dummy should not pass beyond the plane HI, parallel to plane DE.**



RETRACTORS AS OPTION



Insert new paragraph to read:

§ 7.2.1.3.2. In case a retractor is used as part of a lower tether device, the retractor shall be tested in the manner indicated in paragraph 7.2.1.3.3. below, but the load shall be [2500 N] and shall be applied in the least favourable condition. In the case of retractors, the test is performed with the strap completely unwound from the reel.

Renumber existing § 7.2.1.3.2. into § 7.2.1.3.3.