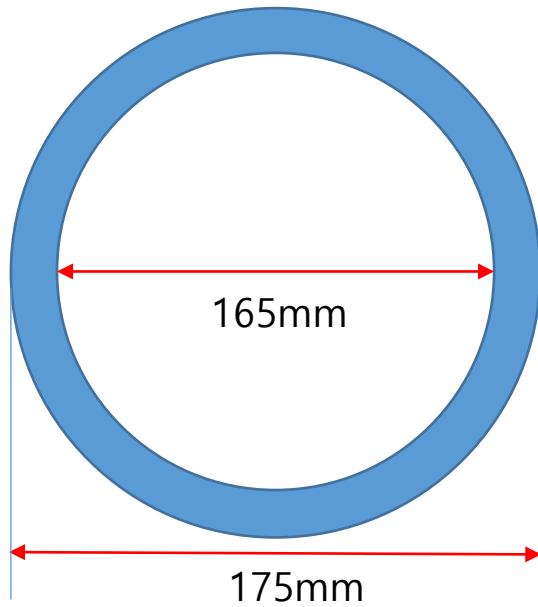


UN R 46 impact test rig

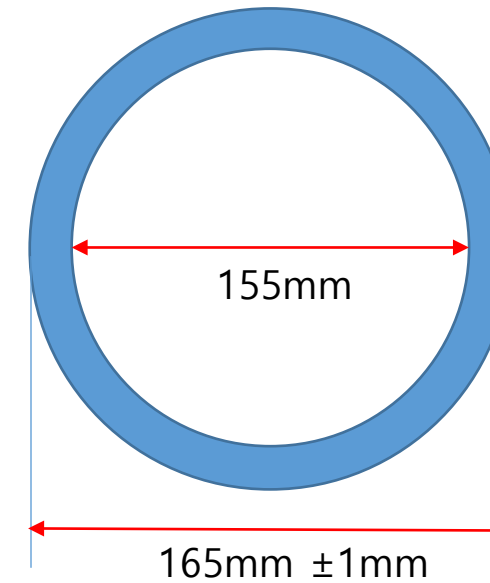
▪ Background

The regard of UN R 46, two different interpretations of the diameter of sphere have occurred.

▪ Argue



or



6.3.2.1. Description of the test rig⁴

6.3.2.1.1. The test rig consists of a pendulum capable of swinging about two horizontal axes at right angles to each other, one of which is perpendicular to the plane containing the "release" trajectory of the pendulum.⁴

The end of the pendulum comprises a hammer formed by a rigid sphere with a diameter of 165 ± 1 mm having a 5 mm thick rubber covering of Shore A hardness 50.⁴

A device is provided which permits determination of the maximum angle assumed by the arm in the plane of release.⁴

UN R 46 impact test rig

Relevant Regulations

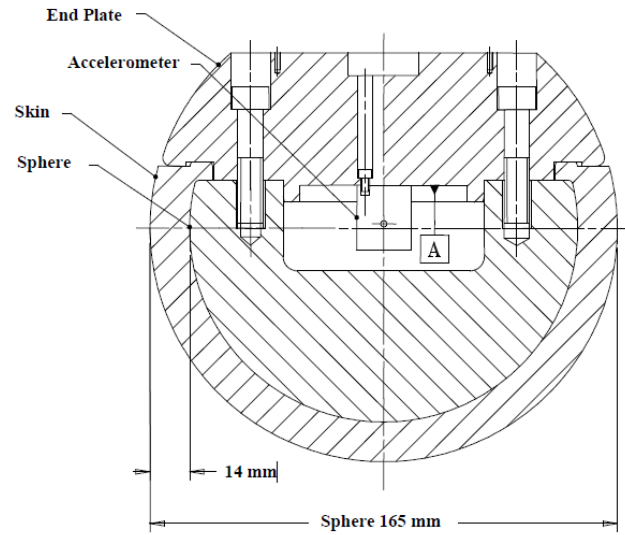


Figure 15: Adult headform impactor (see paragraph 6.3.2.2)

GTR 9

GTR No 9. Para. 6.3.2.2

The adult headform impactor shall be made of aluminium, be of homogenous construction and be of spherical shape. The overall diameter is 165 ± 1 mm as shown in Figure 15.

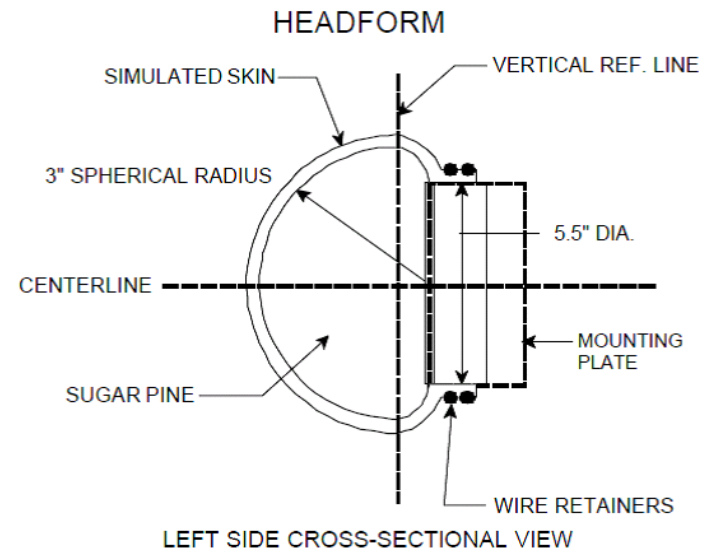


FIGURE 6

FMVSS TP.111

1.2. Test apparatus

- 1.2.1. This apparatus consists of a pendulum whose pivot is supported by ball-bearings and whose reduced mass $\frac{1}{2}$ at its centre of percussion is 6.8 kg. The lower extremity of the pendulum consists of a rigid headform 165 mm in diameter whose centre is identical with the centre of percussion of the pendulum.

UN R 21

Other relevant regulations including an impactor, which are representing a head, are defining the geometric diameter value as 165mm