§ 572.41 General description.

(a) The dummy consists of component parts and component assemblies (SA-SID-M001, revision C, dated September 12, 1996, and SA-SID-M001A, revision B, dated September 12, 1996), which are described in approximately 250 drawings and specifications that are set forth in §572.5(a) of this chapter with the following changes and additions which are described in approximately 85 drawings and specifications (incorporated by reference; see §572.40):

(1) The head assembly consists of the assembly specified in subpart B (§572.6(a)) and conforms to each of the drawings subtended under drawing SA 150 M010 and drawings specified in SA-SID-M010, dated August 13, 1987.

(2) The neck assembly consists of the assembly specified in subpart B (§572.7(a)) and conforms to each of the drawings subtended under drawing SA 150 M020 and drawings specified in SA-SID-M020, dated August 13, 1987.

(3) The thorax assembly consists of the assembly shown as number SID–053 and conforms to each applicable drawing subtended by number SA-SID-M030 revision A, dated May 18, 1994.

(4) The lumbar spine consists of the assembly specified in subpart B (§572.9(a)) and conforms to drawing SA 150 M050 and drawings subtended by SA-SID-M050 revision B, dated September 12, 1996, including the addition of Lumbar Spacers-Lower SID-SM-001 and Lumbar Spacers-Upper SID-SM-002 (both dated May 12, 1994), and Washer 78051–243.

(b) The materials incorporated in this part by reference are available for examination in the general reference section of Docket 79–04, Docket Section, National Highway Traffic Safety Administration, room 5109, 400 Seventh St., S.W., Washington, D.C., 20590, telephone (202) 366–4949. Copies may be obtained from Reprographic Technologies, 9000 Virginia Manor Rd., Suite 210, Beltsville, MD, 20705, Telephone (301) 419–5070, Fax (301) 419–5069.


§ 572.42 Thorax.

(a) When the thorax of a completely assembled dummy (SA-SID-M001A, revision A, dated May 18, 1994, incorporated by reference; see §572.40), appropriately assembled for right or left side impact, is impacted by a test probe conforming to §572.44(a) at 14 fps in accordance with paragraph (b) of this section, the peak accelerations at the location of the accelerometers mounted on the thorax in accordance with §572.44(b) shall be:

(1) For the accelerometer at the top of the Rib Bar on the struck side (LUR or RUR) not less than 37 g’s and not more than 46 g’s.

(2) For the accelerometer at the bottom of the Rib Bar on the struck side...
§ 572.43  Lumbar spine and pelvis.

(a) When the pelvis of a fully assembled dummy (SA-SID-M001A revision B, dated September 12, 1996, (incorporated by reference; see §572.40) is impacted laterally by a test probe conforming to §572.44(a) at 14 fps in accordance with paragraph (b) of this section, the peak acceleration at the location of the accelerometer mounted in the pelvis cavity in accordance with §572.44(c) shall be not less than 40g and not more than 60g. The acceleration-time curve for the test shall be unimodal and shall lie at or above the +20g level for an interval not less than 3 milliseconds and not more than 7 milliseconds.

(b) Test Procedure. (1) Adjust the dummy legs as specified in §572.44(f). Seat the dummy on a seating surface as specified in §572.44(h) with the limbs extended horizontally forward.

(2) Place the longitudinal centerline of the test probe at the lateral side of the pelvis at a point 3.9 inches vertical from the seating surface and 4.8 inches ventral to a transverse vertical plane which is tangent to the back of the dummy's buttocks.

(3) Align the test probe so that at impact its longitudinal centerline coincides with the line formed by the intersection of the horizontal and vertical planes perpendicular to the midsagittal plane passing through the designated impact point.

(4) Position the dummy as specified in §572.44(h), so that the thorax's midsagittal plane and tangential plane to the Hinge Mounting Block (Drawing SID-034) are vertical.

(5) Impact the thorax with the test probe so that at the moment of impact the probe's longitudinal centerline falls within 2 degrees of a horizontal line perpendicular to the dummy's midsagittal plane and passing through the designated impact point.

(6) Guide the probe during impact so that it moves with no significant lateral, vertical or rotational movement.

(7) Allow a time period of at least 2 hours between successive tests of the pelvis.

§ 572.44  Instrumentation and test conditions.

(a) The test probe used for lateral thoracic and pelvis impact tests is a 6 inch diameter cylinder that weighs 51.5 pounds including instrumentation. Its impacting end has a flat right angle face that is rigid and has an edge radius of 0.5 inches.

(b) Three accelerometers are mounted in the thorax for measurement of