

to the reader, the materials incorporated by reference are listed in the Finding Aids Table found at the end of this volume of the Code of Federal Regulations.

(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.

[55 FR 45766, Oct. 30, 1990, as amended at 63 FR 16140, Apr. 2, 1998]

§ 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 shown in SA-SID-M010, 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.

(5) The abdomen and pelvis consist of the assembly specified in subpart B of this part (§ 572.9) and conform to the drawings subtended by SA 150 M060, the drawings subtended by SA-SID-M060 revision A, dated May 18, 1994, and the drawings subtended by SA-SID-087 sheet 1 revision H, dated May 18, 1994, and SA-SID-087 sheet 2 revision H.

(6) The lower limbs consist of the assemblies specified in subpart B (§ 572.10) shown as SA 150 M080 and SA 150 M081 in Figure 1 and SA-SID-M080 and SA-SID-M081, both dated August 13, 1987, and conform to the drawings subtended by those numbers.

(b) The structural properties of the dummy are such that the dummy conforms to the requirements of this subpart in every respect both before and after being used in vehicle tests specified in Standard No 214 § 571.214 of this chapter.

(c) Disassembly, inspection, and assembly procedures; external dimensions and weight; and a dummy drawing list are set forth in the Side Impact Dummy (SID) User's Manual, dated May 1994 except for pages 7, 20 and 23, and appendix A (consisting of replacement pages 7, 20 and 23) dated January 20, 1998 (incorporated by reference; see § 572.40).

[55 FR 45766, Oct. 30, 1990, as amended at 59 FR 52091, Oct. 14, 1994; 63 FR 16140, Apr. 2, 1998]

§ 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

(LLR or RLR) not less than 37 g's and not more than 46 g's.

(3) For the lower thoracic spine (T12) not less than 15 g's and not more than 22 g's.

(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 chest at the intersection of the centerlines of the third rib and the Rib Bar on the desired side of impact. This is the left side if the dummy is to be used on the driver's side of the vehicle and the right side if the dummy is to be used on the passenger side of the vehicle. The probe's centerline is perpendicular to thorax's midsagittal plane.

(3) Align the test probe so that its longitudinal centerline coincides with the line formed by the intersection of the transverse and frontal planes perpendicular to the chest's 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 at the designated impact point, 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 20 minutes between successive tests of the chest.

[59 FR 52091, Oct. 14, 1994, as amended at 59 FR 52091, Oct. 14, 1994]

§ 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 ac-

49 CFR Ch. V (10–1–13 Edition)

celerometer 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 intersection of the horizontal and vertical planes perpendicular to the midsagittal plane passing through the designated impact point.

(4) Adjust the dummy so that its midsagittal plane is vertical and the rear surfaces of the thorax and buttocks are tangent to a transverse vertical plane.

(5) Impact the pelvis with the test probe so that at the moment of impact the probe's longitudinal centerline falls within 2 degrees of the line specified in paragraph (b)(3) of this section.

(6) Guide the test 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.

[55 FR 45766, Oct. 30, 1990, as amended at 59 FR 52091, Oct. 14, 1994; 63 FR 16140, Apr. 2, 1998]

§ 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