Subpart M—Side Impact Hybrid Dummy 50th Percentile Male

§572.110

Materials incorporated by reference.

(a) The following materials are hereby incorporated by reference in Subpart M:


(b) The incorporated materials are available as follows:

(1) The Director of the Federal Register approved those materials incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the materials may be inspected at NHTSA’s Docket Section, 400 Seventh Street S.W., room 5109, Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(2) The parts lists, user’s manual and drawings referred to in paragraphs (a)(1) through (a)(14) of this section are available from Reprographic Technologies, 9000 Virginia Manor Road, Beltsville, MD 20705 (301) 419–5070.

(3) The SAE materials referred to in paragraphs (a)(15) and (a)(16) of this section are available from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.

§572.111 General description.

(a) The dummy consists of component parts and component assemblies defined in drawing SA–SIDH3–M001, dated April 19, 1997, which are described in approximately 200 drawings and specifications that are set forth in §§572.32, 572.33 and 572.41(a)(3),(4),(5) and (6) of this part, and in the drawing of the Adaptor Bracket 96–SIDH3–001.

(1) The head assembly consists of the assembly specified in subpart E (§572.32) and conforms to each of the drawings subtended under drawing 78051–61X rev. C.

(2) The neck assembly consists of the assembly specified in subpart E (§572.33) and conforms to each of the drawings subtended under drawing 78051–90 rev. A.

(3) The thorax assembly consists of the assembly shown as number SID 063 and conforms to each applicable drawing subtended by number SA–SID M030 rev. A.
The head assembly consists of the head (drawing 78051–61X, rev. C) with the neck transducer structural replacement (drawing 78051–383X, rev. F) and three (3) accelerometers that are mounted in conformance to §572.36 (c).

(a) Test procedure. (1) Soak the head assembly in a test environment at any temperature between 18.9 and 25.6 degrees C. (66 to 78 degrees F.) and at a relative humidity between 10 percent and 70 percent for a period of at least four (4) hours prior to its application in a test.

(2) Clean the impact surface of the head skin and impact plate surface, described in paragraph (a)(4) of this section, with 1,1,1 trichloroethane or equivalent prior to the test.

(3) Suspend the head, as shown in Figure 51, so that the midsagittal plane makes an angle of 35 ± 1 degrees with the impact surface and its anterior-posterior axis is horizontal ± 1 degree.

(4) Drop the head from a height of 200 ± 0.25 mm (7.87 ± 0.01 inches), measured from the lowest point on the head, by a means that ensures a smooth, clean release into a rigidly supported flat horizontal steel plate, which is 51 ± 2 mm (2.0 ± 0.01 in.) thick and 610 ± 10 mm (24.0 ± 0.4 in) square. The plate shall have a dry surface and shall have a microfinish of 0.2 microns (8 microinches) to 2.0 microns (80 microinches).

(5) Allow at least two (2) hours between successive tests on the same head.

(b) Performance criteria. (1) When the head assembly is dropped in accordance with §572.112(a), the measured peak resultant acceleration shall be between 120 and 150 G’s.

(2) The resultant acceleration-time curve shall be unimodal to the extent that oscillations occurring after the main acceleration pulse shall not exceed 15 percent (zero to peak) of the main pulse. The longitudinal acceleration vector shall not exceed 15 G’s.