

(b) The incorporated material is available as follows:

(1) Drawing numbers 126-0000 through 126-0015 (sheets 1 through 3), 126-0017 through 126-0027, and a parts list entitled "Parts List for CAMI Newborn Dummy," are available from Reprographic Technologies, 1111 14th Street, NW., Washington, DC 20005. (202) 628-6667.

(2) A construction manual entitled, "Construction of the Newborn Infant Dummy" (July 1992) is available from Reprographic Technologies at the address in paragraph (b)(1) of this section.

§ 572.91 General description.

(a) The representative newborn infant dummy consists of a drawings and specifications package that contains the following materials:

(1) Drawing numbers 126-0000 through 126-0015 (sheets 1 through 3), 126-0017 through 126-0027, and a parts list entitled "Parts List for CAMI Newborn Dummy"; and,

(2) A construction manual entitled, "Construction of the Newborn Infant Dummy" (July 1992).

(b) The structural properties of the dummy are such that the dummy conforms to this part in every respect both before and after being used in dynamic tests specified in Standard No. 213 of this chapter (§ 571.213).

Subpart L—Free Motion Headform

SOURCE: 60 FR 43058, Aug. 18, 1995, unless otherwise noted.

§ 572.100 Incorporation by Reference.

(a) The drawings and specifications referred to in § 572.101 are hereby incorporated in subpart L by reference. These materials are thereby made part of this regulation. The Director of the Federal Register approved the 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.

(b) The incorporated material is available as follows:

(1) Drawing number 92041-001, "Head Form Assembly," (November 30, 1992); drawing number 92041-002, "Skull Assembly," (November 30, 1992); drawing number 92041-003, "Skull Cap Plate Assembly," (November 30, 1992); drawing number 92041-004, "Skull Cap Plate," (November 30, 1992); drawing number 92041-005, "Threaded Pin," (November 30, 1992); drawing number 92041-006, "Hex Nut," (November 30, 1992); drawing number 92041-008, "Head Skin without Nose," (November 30, 1992, as amended March 6, 1995); drawing number 92041-009, "Six-Axis Load Cell Simulator Assembly," (November 30, 1992); drawing number 92041-011, "Head Ballast Weight," (November 30, 1992); drawing number 92041-018, "Head Form Bill of Materials," (November 30, 1992); drawing number 78051-148, "Skull-Head (cast) Hybrid III," (May 20, 1978, as amended August 17, 1978); drawing number 78051-228/78051-229, "Skin-Hybrid III," (May 20, 1978, as amended through September 24, 1979); drawing number 78051-339, "Pivot Pin-Neck Transducer," (May 20, 1978, as amended May 14, 1986); drawing number 78051-372, "Vinyl Skin Formulation Hybrid III," (May 20, 1978); and drawing number C-1797, "Neck Blank, (August 1, 1989); drawing number SA572-S4, "Accelerometer Specification," (November 30, 1992), are available from Reprographic Technologies, 1111 14th Street, N.W., Washington, DC 20005.

(2) A user's manual entitled "Free-Motion Headform User's Manual," version 2, March 1995, is available from NHTSA's Docket Section at the address in paragraph (a) of this section.

(3) SAE Recommended Practice J211, OCT 1988, "Instrumentation for Impact Tests," Class 1000, is available from The Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096.

§ 572.101 General description.

(a) The free motion headform consists of the component assembly which is shown in drawings 92041-001 (incorporated by reference; see § 572.100), 92041-002 (incorporated by reference;

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see § 572.100), 92041-003 (incorporated by reference; see § 572.100), 92041-004 (incorporated by reference; see § 572.100), 92041-005 (incorporated by reference; see § 572.100), 92041-006 (incorporated by reference; see § 572.100), 92041-008 (incorporated by reference; see § 572.100), 92041-009 (incorporated by reference; see § 572.100), 92041-011 (incorporated by reference; see § 572.100), 78051-148 (incorporated by reference; see § 572.100), 78051-228/78051-229 (incorporated by reference; see § 572.100), 78051-339 (incorporated by reference; see § 572.100), 78051-372 (incorporated by reference; see § 572.100), C-1797 (incorporated by reference; see § 572.100), and SA572-S4 (incorporated by reference; see § 572.100).

(b) Disassembly, inspection, and assembly procedures, and sign convention for the signal outputs of the free motion headform accelerometers, are set forth in the Free-Motion Headform User's Manual (incorporated by reference; see § 572.100).

(c) The structural properties of the headform are such that it conforms to this part in every respect both before and after being used in the test specified in Standard No. 201 of this chapter (§ 571.201).

(d) The outputs of accelerometers installed in the headform are recorded in individual data channels that conform to the requirements of SAE Recommended Practice J211, OCT 1988, "Instrumentation for Impact Tests," Class 1000 (incorporated by reference; see § 572.100).

§ 572.102 Drop test.

(a) When the headform is dropped from a height of 14.8 inches in accordance with paragraph (b) of this section, the peak resultant accelerations at the location of the accelerometers mounted in the headform as shown in drawing 92041-001 (incorporated by reference; see § 572.100) shall not be less than 225g, and not more than 275g. The acceleration/time curve for the test shall be unimodal to the extent that oscillations occurring after the main acceleration pulse are less than ten percent (zero to peak) of the main pulse. The lateral acceleration vector shall not exceed 15g (zero to peak).

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(b) *Test procedure.* (1) Soak the headform in a test environment at any temperature between 19 degrees C. to 26 degrees C. and at a relative humidity from 10 percent to 70 percent for a period of at least four hours prior to its use in a test.

(2) Clean the headform's skin surface and the surface of the impact plate with 1,1,1 Trichloroethane or equivalent.

(3) Suspend the headform, as shown in Figure 50. Position the forehead below the chin such that the skull cap plate is at an angle of 28.5 ± 0.5 degrees with the impact surface when the midsagittal plane is vertical.

(4) Drop the headform from the specified height by means that ensure instant release onto a rigidly supported flat horizontal steel plate, which is 2 inches thick and 2 feet square. The plate shall have a clean, dry surface and any microfinish of not less than 8 microinches 203.2×10^{-6} mm (rms) and not more than 80 microinches 2032×10^{-6} mm (rms).

(5) Allow at least 3 hours between successive tests on the same headform.

§ 572.103 Test conditions and instrumentation.

(a) Headform accelerometers shall have dimensions, response characteristics, and sensitive mass locations specified in drawing SA572-S4 (incorporated by reference; see § 572.100) and be mounted in the headform as shown in drawing 92041-001 (incorporated by reference; see § 572.100).

(b) The outputs of accelerometers installed in the headform are recorded in individual data channels that conform to the requirements of SAE Recommended Practice J211, OCT 1988, "Instrumentation for Impact Tests," Class 1000 (incorporated by reference; see § 572.100).

(c) Coordinate signs for instrumentation polarity conform to the sign convention shown in the Free-Motion Headform User's Manual (incorporated by reference; see § 572.100).

(d) The mountings for accelerometers shall have no resonant frequency within a range of 3 times the frequency range of the applicable channel class.