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(f) *Recording outputs.* Record the outputs of acceleration and force-sensing devices installed in the dummy and in the test apparatus specified in this part, in individual channels that conform to the requirements of SAE Recommended Practice J211, October 1988, with channel classes as set out in the following table C.

TABLE C

Device	Channel
Head acceleration	Class 1000
Pendulum acceleration	Class 60
Thorax acceleration	Class 180
Femur-force	Class 600

The mountings for sensing devices shall have no resonance frequency within a range of 3 times the frequency range of the applicable channel class.

§ 572.78 Performance test conditions.

(a) Conduct performance tests at any temperature from 66 °F to 78 °F, and at any relative humidity from 10 percent to 70 percent, but only after having first exposed the dummy to these conditions for a period of not less than 4 hours.

(b) For the performance tests specified in § 572.72 (head), § 572.74 (thorax), § 572.75 (lumbar spine, abdomen, and pelvis), and § 572.76 (limbs), position the dummy as set out in paragraph (c) of this section.

(c) Place the dummy on a horizontal seating surface covered by teflon sheeting so that the dummy's midsagittal plane is vertical and centered on the test surface.

(1) The seating surface is flat, rigid, clean, and dry, with a smoothness not exceeding 40 microinches, a length of at least 16 inches, and a width of at least 16 inches.

(2) For head impact tests, the seating surface has a vertical back support whose top is 12.4 ±0.2 inches above the horizontal surface, and the rear surfaces of the dummy's back and buttocks touch the back support as shown in Figure 40.

(3) For the thorax, lumbar spine, and knee tests, the horizontal surface is without a back support as shown in Figure 41 (for the thorax); Figure 42 (for the lumbar spine); and Figure 43 (for the knee).

(4) Position the dummy's arms and legs so that their center lines are in planes parallel to the midsagittal plane.

(5) Adjust each shoulder yoke so that with its upper surface horizontal, a yoke is at the midpoint of its anterior-posterior travel.

(6) Adjust the dummy for head and knee impact tests so that the rear surfaces of the shoulders and buttocks are tangent to a transverse vertical plane.

(d) The dummy's dimensions are specified in drawings SA 106C 001, sheet 3, Revision A, July 11, 1997, and sheets 4 through 6.

(e) Unless otherwise specified in this regulation, performance tests of the same component, segment, assembly or fully assembled dummy are separated in time by a period of not less than 20 minutes.

(f) Unless otherwise specified in this regulation, the surfaces of the dummy components are not painted.

[56 FR 57836, Nov. 14, 1991, as amended at 62 FR 44227, Aug. 20, 1997]

FIGURES TO SUBPART I OF PART 572

FIGURE 40
HEAD IMPACT TEST SET-UP

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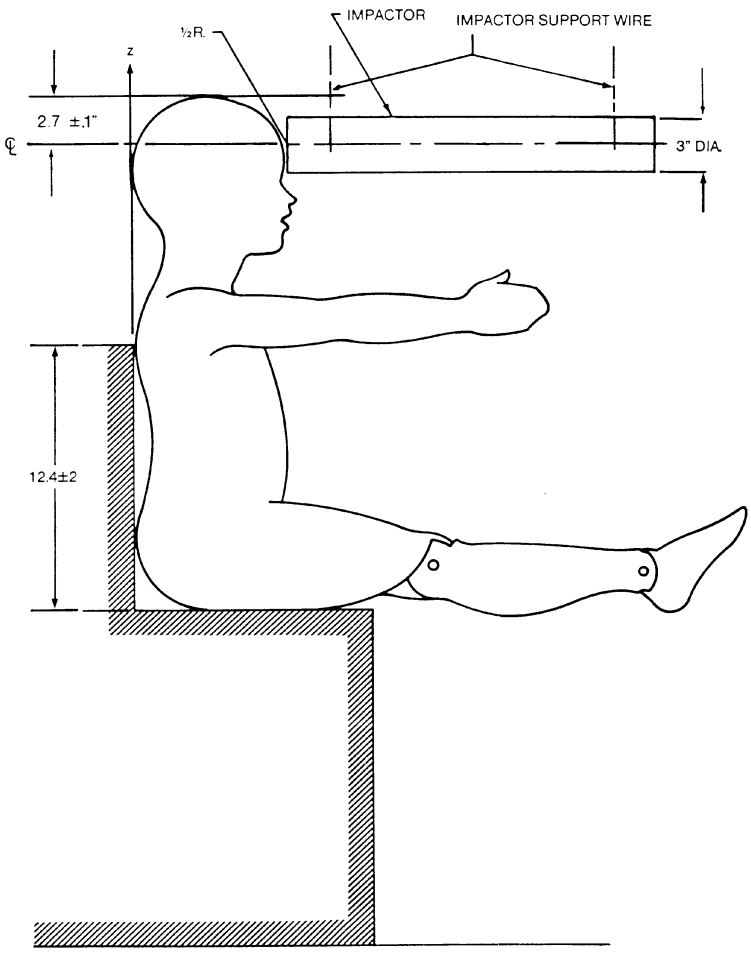


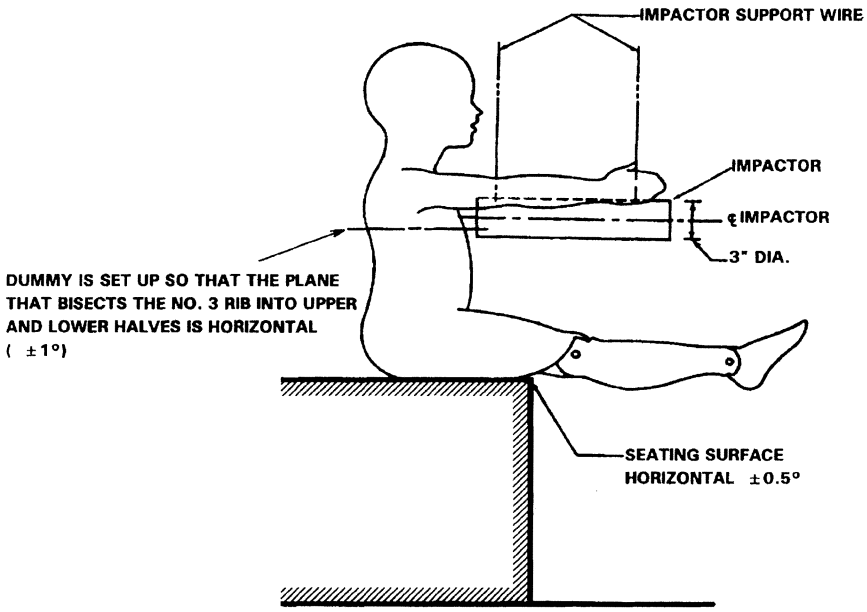
NOTES: 1. DUMMY IMPACT SENSORS NOT USED IN THIS TEST MAY BE REPLACED BY EQUIVALENT DEAD WEIGHTS.

2. NO EXTERNAL SUPPORTS ARE REQUIRED ON THE DUMMY TO MEET SET-UP SPECIFICATIONS.

3. THE MIDSAGITTAL PLANE OF THE DUMMY IS VERTICAL WITHIN +/−1 DEG.

4. THE MIDSAGITTAL PLANE OF THE HEAD IS CENTERED WITH RESPECT TO THE LONGITUDINAL CENTERLINE OF THE PENDULUM WITHIN 0.12 IN.

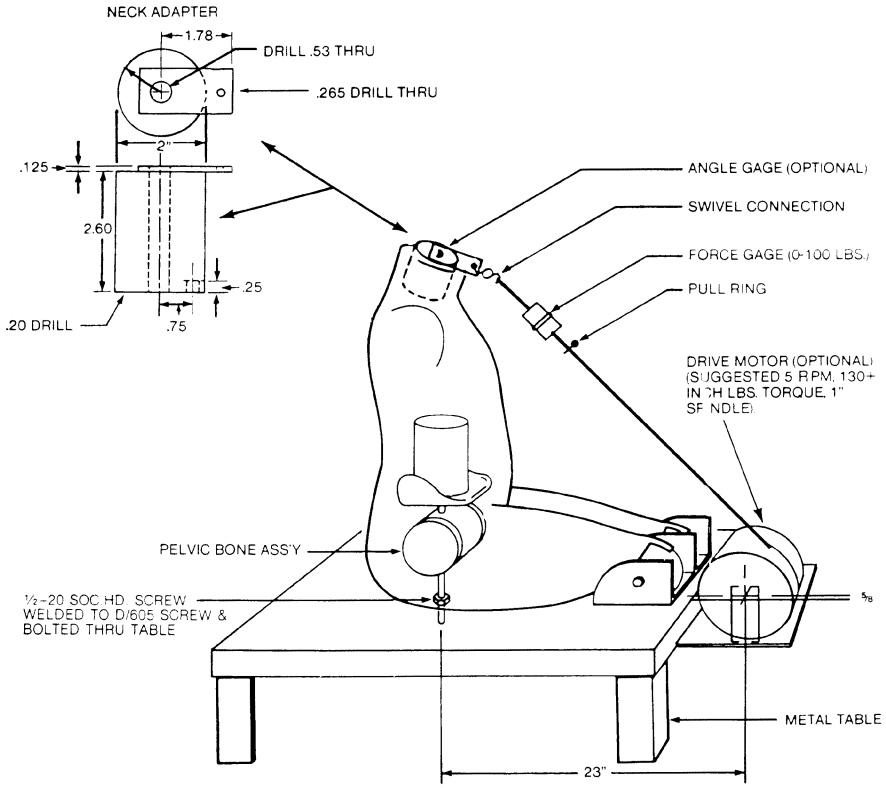
FIGURE 41
THORAX IMPACT TEST SET-UP



NOTES:
1. DUMMY IMPACT SENSORS NOT USED IN THIS TEST MAY BE REPLACED BY EQUILVALENT DEAD WEIGHTS.
2. NO EXTERNAL SUPPORTS ARE REQUIRED ON THE DUMMY TO MEET SET-UP SPECIFICATIONS.
3. THE MIDSAGITTAL PLANE OF THE DUMMY IS VERTICAL WITHIN +/-1 DEG.
4. THE MIDSAGITTAL PLANE OF THE THORAX IS CENTERED WITH RESPECT TO THE LONGITUDINAL CENTERLINE OF THE PENDULUM WITHIN 0.12 IN.

[60 FR 2898, Jan. 12, 1995]

FIGURE 42
LUMBAR SPINE FLEXION TEST SET-UP



NOTES: 1. DUMMY IMPACT SENSORS NOT USED IN THIS TEST MAY BE REPLACED BY EQUIVALENT DEAD WEIGHTS.

2. NO EXTERNAL SUPPORTS ARE REQUIRED ON THE DUMMY TO MEET SET-UP SPECIFICATIONS.

3. THE MIDSAGITTAL PLANE OF THE DUMMY IS VERTICAL WITHIN + /−1 DEG.

4. THE DUMMY IN THE SEATED POSITION IS FIRMLY AFFIXED TO THE TEST BENCH AT THE PELVIC BONE AND AT THE KNEES.

5. THE PULL-FLEXION FORCE, APPLIED THROUGH A RIGID NECK ADAPTOR WHICH IS MOUNTED ON TOP OF THE THORACIC STERNUM ASSEMBLY (C/601), IS ALIGNED WITH THE MIDSAGITTAL PLANE OF THE DUMMY WITHIN +/−1 DEG.

6. THE SWIVEL FOR THE FORCE MEASURING SENSOR MUST NOT BIND OR BOTTOM OUT THROUGH THE ENTIRE LOADING CYCLE.

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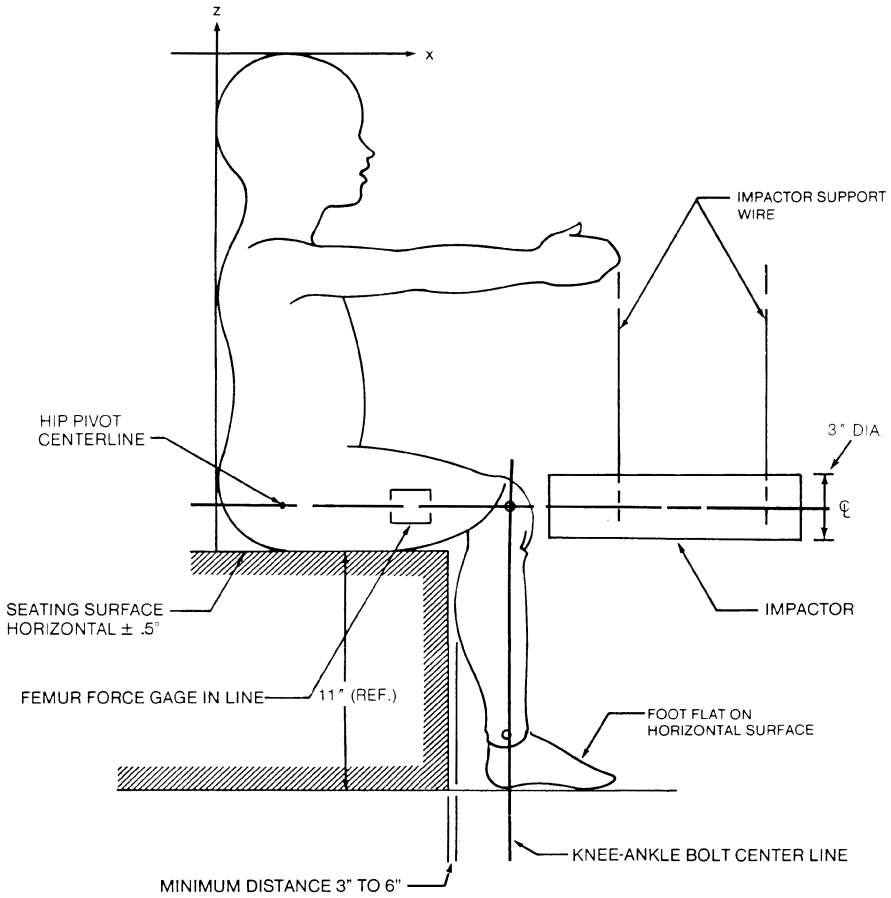
FIGURE 43
KNEE IMPACT TEST SET-UP



NOTES: 1. DUMMY IMPACT SENSORS NOT USED IN THIS TEST MAY BE REPLACED BY EQUIVALENT DEAD WEIGHTS.

2. NO EXTERNAL SUPPORTS ARE REQUIRED ON THE DUMMY TO MEET SET-UP SPECIFICATIONS.

3. THE MIDSAGITTAL PLANE OF THE DUMMY IS VERTICAL WITHIN +/−1 DEG.

4. CENTERLINE OF THE IMPACTED FEMUR IS ALIGNED WITH THE CENTERLINE OF THE IMPACTOR AND THE PLANE OF THE IMPACTOR MOTION WITHIN +/−1 DEG.

Subpart J—9-Month Old Child

SOURCE: 56 FR 41080, Aug. 19, 1991, unless otherwise noted.

§ 572.80 Incorporated materials.

The drawings and specifications referred to in § 572.81(a) that are not set forth in full are hereby incorporated in