§ 572.134 Thorax assembly and test procedure.
(a) Thorax (Upper Torso) Assembly (refer to §572.130(a)(1)(iii)). The thorax consists of the part of the torso assembly shown in drawing 880105–300.

(b) When the anterior surface of the thorax of a completely assembled dummy (drawing 880105–000) is impacted by a test probe conforming to section 572.137(a) at 6.71 ±0.12 m/s (22.0 ±0.4 ft/s) according to the test procedure in subsection (c) of this section:
   (1) Maximum sternum displacement (compression) relative to the spine, measured with chest deflection transducer (drawing SA572–S5), must be not less than 50.0 mm (1.97 in) and not more than 58.0 mm (2.30 in). Within this specified compression corridor, the peak force, measured by the impact probe as defined in section 572.137 and calculated in accordance with paragraph (b)(3) of this section, shall not be less than 3900 N (876 lbf) and not more than 4400 N (989 lbf). The peak force after 18.0 mm (0.71 in) of sternum displacement but before reaching the minimum required 50.0 mm (1.97 in) sternum displacement limit shall not exceed 4600 N.

   (2) The internal hysteresis of the ribcage in each impact as determined by the plot of force vs. deflection in paragraph (1) of this section shall be not less than 69 percent but not more than 85 percent. The hysteresis shall be calculated by determining the ratio of the area between the loading and unloading portions of the force deflection curve to the area under the loading portion of the curve.

   (3) The force shall be calculated by the product of the impactor mass and its deceleration.

§ 572.135 Upper and lower torso assemblies and torso flexion test procedure.
(a) Upper/lower torso assembly. The test objective is to determine the stiffness effects of the lumbar spine (drawing 880105–1096), and abdominal insert (drawing 880105–434), on resistance to articulation between the upper torso assembly (drawing 880105–300) and the lower torso assembly (drawing 880105–450) (refer to §572.130(a)(1)(iv)).

   (b)(1) When the upper torso assembly of a seated dummy is subjected to a force continuously applied at the head to neck pivot pin level through a rigidly attached adaptor bracket as shown in Figure O4 according to the test procedure set out in subsection (c) of this section, the lumbar spine-abdomen assembly shall flex by an amount that permits the upper torso assembly to

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