§ 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 accelerometer 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 the 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.

§ 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