dorsiflexion and as close together as possible.

(4) Orient the arm downward to the lowest detent such that the longitudinal centerline of the arm is parallel to the inferior-superior orientation of the spine box.

(5) The midsagittal plane of the dummy is vertical, and superior surface of lower half neck assembly load cell replacement (180-3815) in the lateral direction is within ±1 degree relative to the horizontal as shown in Figure V9-A.

(6) While maintaining the dummy’s position as specified in paragraphs (b)(3), (4) and (5) of this section, the top of the shoulder rib mount (180-3352) orientation in the fore-and-aft direction is within ±1.0 degree relative to horizontal as shown in Figure V9-B in Appendix A to this subpart.

(7) The pelvis impactor is specified in 49 CFR 572.200(c).

(8) The dummy is positioned with respect to the impactor such that the longitudinal centerline of the impact probe is in line with the longitudinal centerline of the iliac load cell access hole, and the 88.9 mm dimension of the probe’s impact surface is aligned horizontally.

(9) The impactor is guided, if needed, so that at contact with the pelvis, the longitudinal axis of the impactor is within ±1 degree of a horizontal plane and perpendicular to the midsagittal plane of the dummy.

(10) The dummy’s pelvis is impacted at the iliac location at 4.3±0.1 m/s.

(11) Allow a period of at least 120 minutes between successive tests of the same pelvis assembly.

(c) Performance criteria. While the impactor is in contact with the pelvis:

(1) Peak acceleration of the impactor is not less than 36 g and not more than 45 g;

(2) Peak acceleration of the pelvis is not less than 28 g and not more than 39 g;

(3) Peak iliac force is not less than 4.10 kN and not more than 5.10 kN.

(i) Leg joints of the test dummy are set at the force between 1 to 2 g, which just support the limb’s weight when the limbs are extended horizontally forward. The force required to move a limb segment does not exceed 2 g throughout the range of the limb motion.

(j) Performance tests are conducted, unless specified otherwise, at any temperature from 20.6 to 22.2 degrees C. (69 to 72 degrees F.) and at any relative humidity from 10% to 70% after exposure of the dummy to those conditions for a period of 4 hours.

(k) Coordinate signs for instrumentation polarity shall conform to the Sign Convention For Vehicle Crash Testing, Surface Vehicle Information Report, SAE J1733, 1994–12 (refer to §572.191(a)(5)).

FIGURE V1
NECK ATTACHED TO HEADFORM ASSEMBLY

- Neck Mounting Plate (Part #180-9058)
- Use (4) #10-24 x 5/8 SHCS

- Neck Assembly (Part #180-2000)
- (4) 1/4-20 x 1/2 SHCS

- 6 Axis Upper Neck Load Cell (SA572-S11)
- Headform Front Disk (Part #180-9061)

- Headform Assembly (Part #180-9000)
- Headform Angle Pot Assembly
FIGURE V2-A
NECK/HEADFORM ATTACHED TO PENDULUM
FOR LEFT-SIDE IMPACT

DIRECTION OF MOTION

PENDULUM
(REF. FIG. 22
CFR 49 § 572-33)

NECK
MOUNTING
PLATE
(PART #180-9058)

FORE/OUTER ANGLE
POT ASSEMBLY
(CONNECT TO
HEADFORM
ANGLE POT)

AFT/INNER ANGLE
POT ASSEMBLY

BIB SIMULATOR
(PART #180-3006)

NECK
ASSEMBLY
(PART #180-2000)

HEADFORM
ASSEMBLY
(PART #180-9000)
FIGURE V2-B
NECK/HEADFORM ATTACHED TO PENDULUM
FOR RIGHT-SIDE IMPACT

DIRECTION OF MOTION

PENDULUM
REF. FIG. 22
CFR 49 § 572.33

NECK
MOUNTING
PLATE
(PART #180-9058)

FORE/OUTER ANGLE
POT ASSEMBLY
(CONNECT TO
HEADFORM
ANGLE POT)

AFT/INNER ANGLE
POT ASSEMBLY

BIB SIMULATOR
(PART #180-3006)

NECK
ASSEMBLY
(PART #180-2000)

HEADFORM
ASSEMBLY
(PART #180-9000)
FIGURE V2-C
ANGLE MEASUREMENT WITH HEADFORM SET-UP

HEAD FORM LATERAL
TRANSATION-ROTATION (β)
CALCULATION:

\[ β = Δθ_{\text{outer}} + Δθ_{\text{head}} \]

WHERE \( β \) IS THE TOTAL ROTATION OF THE
HEADFORM,
\( Δθ_{\text{outer}} \) IS THE CHANGE IN ANGLE MEASURED
BY THE OUTER POTENTIOMETER, AND
\( Δθ_{\text{head}} \) IS THE CHANGE IN ANGLE MEASURED
BY THE HEADFORM POTENTIOMETER.
(THE ROD OF THE OUTER POTENTIOMETER ASSEMBLY IS
FIXED VIA SET SCREWS TO THE HEADFORM POTENTIOMETER)
**FIGURE V3**
CERTIFICATION BENCH

**FIGURE V4-A**
SHOULDER IMPACT

* 1/3 OF CABLE WEIGHT NOT TO EXCEED 5% OF THE TOTAL IMPACTOR PROBE WEIGHT
**FIGURE V8-B**

**ACETABULUM IMPACT**

(NON-IMPACT SIDE VIEW)

- Align upper and lower neck brackets so top edges are flush.
- Lower neck bracket (Part #160-3615).
- Shoulder rib mount (Part #160-3352).

**FIGURE V9-A**

**ILIAC IMPACT**

- Lower neck bracket horizontal ±1°.
- Knees as close together as possible.
- Masking tape** as required to hold dummy in position.

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*1/3 of cable weight not to exceed 5% of the total impactor weight.

** Alternatively, a material with a maximum static breaking strength of 311 N (70 lb) may be used to support the dummy in position.
PART 573—DEFECT AND NON-COMPLIANCE RESPONSIBILITY AND REPORTS

§ 573.1 Scope.

This part:
(a) Sets forth the responsibilities under 49 U.S.C. 30116–30121 of manufacturers of motor vehicles and motor vehicle equipment with respect to safety-related defects and noncompliances with Federal motor vehicle safety standards in motor vehicles and items of motor vehicle equipment; and
(b) Specifies requirements for—
(1) Manufacturers to maintain lists of owners, purchasers, dealers, and distributors notified of defective and noncompliant motor vehicles and items of replacement equipment.
(2) Reporting to the National Highway Traffic Safety Administration (NHTSA) defects in motor vehicles and motor vehicle equipment and noncompliances with motor vehicle safety standards prescribed under part 571 of this chapter; and