§ 572.166 Knees and knee impact test procedure.

The knee assembly is assembled and tested as specified in 49 CFR 572.126 (Subpart N).

§ 572.167 Test conditions and instrumentation.

The test conditions and instrumentation are as specified in 49 CFR 572.127 (Subpart N).
FIGURE S1
THORAX IMPACT TEST SET-UP SPECIFICATIONS

- IMPACT PROBE SUPPORT CABLES
- PENDULUM ACCELEROMETER MOUNTED WITH SENSITIVE AXIS PARALLEL TO PENDULUM LONGITUDINAL CENTERLINE
- ALL RIBS HORIZONTAL
- CENTERLINE OF IMPACT PROBE IS 12.7±1mm (0.5±0.04 in) BELOW HORIZONTAL CENTERLINE OF THIRD RIB
- IMPACT PROBE WEIGHT INCLUDING ALL INSTRUMENTATION AND 1/3 OF SUPPORT CABLE WEIGHT* 2.86±0.02 kg (6.3±0.05 lb)
- COMPLETE ASSEMBLY (167-0000)
- PELVIC ANGLE ** 8° ±1° FROM HORIZONTAL (127-3012)

* 1/3 CABLE WEIGHT NOT TO EXCEED 5% OF THE TOTAL IMPACT PROBE WEIGHT
** PELVIS LUMBAR JOINING SURFACE
FIGURE S2
TORSO FLEXION TEST SET-UP SPECIFICATIONS

ATTACH LOADING ADAPTER BRACKET TO MACHINED SURFACE (127-8000, DETAIL IN 127-2022) WITH FOUR 6-32 SCREWS TO MATCH THE POINT OF LOAD APPLICATION WITH THE LEVEL OF THE UNDISTURBED NECK OCCIPITAL CONDYLE PIVOT AXIS

COMPLETE DUMMY ASSEMBLY (167-0000)

ATTACH PELVIS (REF. 127-3012) TO TABLE MOUNTED FIXTURE WITH FOUR 1/4-20 x 1/2" BOLTS

PELVIS-LUMBAR JOINING SURFACE HORIZONTAL ±1°

METAL TABLE

31.8mm (1.25 in)

175.5mm (6.9 in)

90.4mm (3.56 in)

LOAD CELL

PIVOT PIN (78051-339 REF.)

FINAL POSITION OF ANGLE REF. PLANE 45°

32° MAX.

VERTICAL

INITIAL POSITION OF ANGLE REF. PLANE

CENTERLINE OF PIVOT PIN

LOADING ADAPTER BRACKET (TYPICAL)

COMBINED WEIGHT OF LOAD CELL, LOADING ADAPTER BRACKET, PULL CABLE AND ATTACHMENT HARDWARE ≤ 0.77 kg (1.7 lb)