Figure N 1

HEAD DROP TEST SET-UP SPECIFICATIONS

HEAD COMPLETE
(127-1000)
WITH HEAD
ACCELEROMETER ASSY
(127-1550 REF.)

D - PLANE
PERPENDICULAR
TO SKULL CAP/
SKULL INTERFACE

HEAD SUSPENSION
CABLES

QUICK RELEASE

DROP HEIGHT

STEEL PLATE
50.8x510mm x510mm
(2x24x24 in)
IMPACT SURFACE
FINISH
203 to 2032 μm/mm
(8 to 80 RMS μin/in)

CENTERLINE
OF 1.57mm
(0.062 in) DIA.
HOLES IN SKULL

"A" - "B" - DISTANCE "A" - "B" = 0.0±0.1 mm
(0±0.004 in)
Figure N2

NECK FLEXION TEST SET-UP SPECIFICATIONS

NOTE:
PENDULUM SHOWN IN VERTICAL ORIENTATION
Figure N3

NECK EXTENSION TEST SET-UP SPECIFICATIONS

PENDULUM CENTERLINE

NECK EXTENSION
PENDULUM
STANDARD 49 CFR
§ 572.33 FIG. 22

26.1 mm (1.028 in)

DIRECTION OF
PENDULUM
FLIGHT

POSTERIOR
ATTACHMENT
BOLT CENTERLINE
PART #9001265 SCREW,
SHCS #10-24 x 7/16

NECK BRACKET ASSY.
(127-8221)

NECK ASSY.
(127-1015)

6-AXIS UPPER NECK
LOAD CELL
(SA372-S11)

NECK ADAPTER
BRACKET
(TE-2208-001 REF.)

BIB SIMULATOR
(TE 127-1025 REF.)

PIVOT PIN
(78051-339)

NOTE:
PENDULUM SHOWN IN VERTICAL ORIENTATION

D-PLANE
(REF. FIG. N1)
PERPENDICULAR
TO PENDULUM
CENTERLINE ± 1°

HEAD COMPLETE
(127-1000)
WITH ACCELEROMETER
ASSY.
(127-1550)
FIGURE N 4
THORAX IMPACT TEST SET-UP SPECIFICATIONS

Impact Probe Support Cables

Impact Probe Weight including All Instrumentation and 1/3 of Support Cable Weight
2.86±0.02 kg (6.3±0.05 lb)

All Ribs Horizontal

Centerline of Impact Probe is 12.7±1 mm (0.5±0.04 in) Below Horizontal Centerline of Third Rib

Pelvic Angle ** 8° ±1° from Horizontal (127-3012)

Complete Assembly (127-0000)

* 1/3 Cable Weight not to exceed 5% of the Total Impact Probe Weight
** Pelvis Lumbar Joining Surface
FIGURE N 5
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 UNDISTURBED NECK OCCIPITAL CONDYLE PIVOT AXIS

COMPLETE DUMMY ASSEMBLY (127-0000)

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

PELVIS-LUMBAR JOINING SURFACE HORIZONTAL ±1°

INITIAL POSITION OF ANGLE REF. PLANE

FINAL POSITION OF ANGLE REF. PLANE 45°

LOAD CELL

PULL CABLE

PULL CABLE AND ATTACHMENT HARDWARE ≤ 0.77 kg (1.7 lb)

LOADING ADAPTER BRACKET (TYPICAL)

CENTERLINE OF PIVOT PIN

31.8 mm (1.25 in)

90.4 mm (3.56 in)

175.5 mm (6.9 in)

METAL TABLE
FIGURE N 6
KNEE IMPACT TEST SET-UP SPECIFICATIONS

PENDULUM ACCELEROMETER
MOUNTED WITH SENSITIVE AXIS PARALLEL
TO PENDULUM LONGITUDINAL CENTERLINE

PENDULUM CENTERLINE
HORIZONTAL ±1°

KNEE IMPACT PROBE
INCL. INSTRUMENTATION AND 1/3 OF SUPPORT CABLE WEIGHT
0.82±.02 kg (1.80±.04 lb)

ADJUST KNEE JOINT TORQUE TO 1-2 g RANGE BEFORE EACH TEST.

KNEE ASSY
(P/N 127-4010 REF.)

KNEE PIVOT

RIGID MOUNTING PLATE

LOWER LEG ASSY
(P/N 127-4014 REF.)

FOOT ASSY
(P/N 127-4030-1 REF.)

TORQUE TWO FEMUR LOAD CELL SIMULATOR MOUNTING BOLTS
(9000535 REF. AND 9000133 REF.) TO 4.5 Nm (40 in-lb)

FEMUR LOAD CELL SIMULATOR
(P/N 127-4007 REF.) OR LOAD CELL
(SA572-S10) HORIZONTAL ±1°