



DOT SID

(Model SA-SID-M001)



The DOT Side Impact Dummy (SID) was originally developed under NHTSA contract to the University of Michigan. This program was undertaken to develop a manikin capable of producing human-like responses when impacted in the lateral direction during an automotive side impact crash. This Title 49 CFR Part 572, Subpart F device is the only ATD specified as meeting the requirements of FMVSS Standard No. 214. (Side Impact Protection).

MAJOR FEATURES:

- The head, neck and neck bracket are from the Hybrid II 50th Percentile Male Test Dummy, Part 572, Subpart B.
- The thorax is totally unique from the bottom of the neck bracket to the top of the lumbar spine.
- The pelvis is modified from the Hybrid II 50th Percentile Male Test Dummy, to make the flesh more uniform on each impacted side.
- The legs are also from the Subpart B Test Dummy with the exception of the link rods which have been modified to incorporate femur posts to permit motion laterally of the knee casting relative to the upper leg.
- The mandatory instrumentation for compliance test include one accelerometer each mounted at the T12 position on the thoracic spine, accelerometers mounted at the top and bottom of the rib bar and an accelerometer mounted in the pelvis.

OPTIONAL EQUIPMENT:

Provisions for optional instrumentation include the mounting of accelerometers in the head and the T1 position. Load cells are available.

The calibration tests performed prior to shipment include:

- Head Drop
- Neck Flexion
- Thorax Impact
- Lumbar Flexion
- Pelvis Impact
- Knee Impact
- Damper Impact
- Abdominal Compression

Standard equipment included in the base price of this device:

- Rib Displacement Transducer
- Accelerometer mounts for head, upper and lower torso, upper and lower rib and pelvis*
- Lumbar Spine Bushings for noise reduction

*User must specify the accelerometer manufacturer and type at the time of order placement

WEIGHTS:	Pounds (lbs.)	Kilograms
Head	10.0	4.5
Neck	1.9	0.86
Upper Torso	65.2	29.6
Lower Torso	36.9	16.7
Leg Assembly	27.5	12.5
Total Weight	169.0	76.7

DIMENSIONS:	Inches	Centimeters
Head Circumference	22.5	57.2
Head Width	6.1	15.5
Head Length	7.7	19.6
Buttock to Knee	20.4	51.8
Knee Pivot to Floor	19.6	49.8
Sitting Height	35.4	89.9

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