

WorldSID Production Design Completed

The ISO World Side Impact Dummy (WorldSID) Task Group has completed the design and development of the WorldSID. Developed under direction of ISO/TC22/SC12/WG5 beginning in 1997, and funded by a worldwide consortium at a cost of about 14 million euros, the dummy production design was completed on schedule in March 2004.

The WorldSID heralds a significant improvement in the ability



of crash dummies to duplicate human motions and responses in side impact tests, which should lead to improved vehicle designs and occupant protection. In addition, WorldSID, which was developed by hundreds of engineers and scientists from over 45 organizations in Europe, Asia-Pacific and the Americas, represents a major breakthrough in worldwide harmonization of crash test dummies.

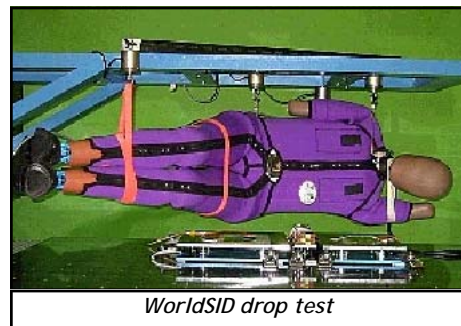
In total, testing has included nearly 1000 whole dummy biofidelity, vehicle, and component tests. This testing was conducted in sixteen different test labs and agencies in at least ten different countries including governmental agencies in Canada, Japan, Australia, the United States and various organizations as part of a framework research program of the European Commission.



WorldSID Documentation ISO/WD 15830 Approved by WG5

To ensure that the WorldSID is available to the worldwide vehicle research community, the design details have been documented in ISO/WD 15830, which was recently approved by ISO/TC22/SC12/WG5, and is currently being reviewed and balloted at the Committee Draft level by ISO/TC22/SC12.

This documentation, which includes 400 fabrication drawings and CAD files, contains test results, user manuals and all of the design details, material specifications, and performance standards required for the fabrication of the WorldSID.



WorldSID Has "Good" Biofidelity

Effective vehicle occupant protection design is very dependent upon the ability of vehicle engineers to use crash dummies to predict possible human injuries. The WorldSID's biofidelity, a measure of how well the dummy simulates the forces and motions of a human, is the best of any side impact crash dummy to date and far exceeds that of its closest rival.

ISO/TR 9790 specifies procedures for evaluating side impact dummy biofidelity performance using a series of 33 laboratory tests.

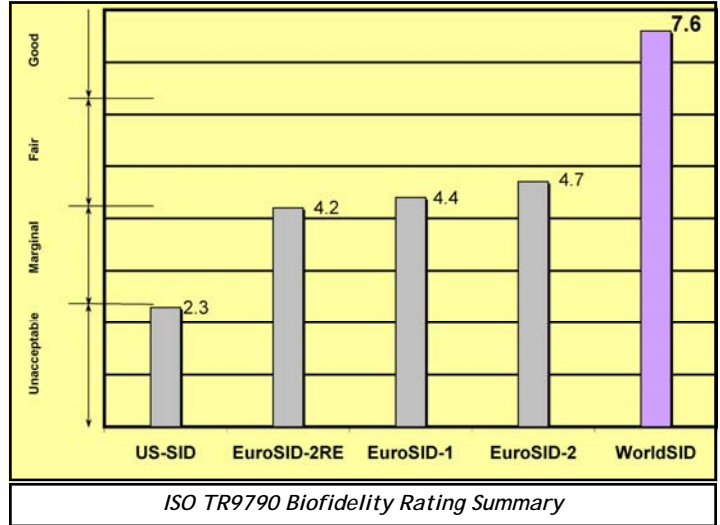
Based on the ISO/TR9790 rating scale, the WorldSID rating is 7.6 ("Good" on a 10 point rating scale). In comparison, other currently used side impact dum-

mies, US-SID, EuroSID-2RE, EuroSID-1, and EuroSID-2, have ratings of 2.3, 4.2, 4.4, and 4.7 respectively.

The ability of vehicle safety engineers to utilize the enhanced biofidelity of the WorldSID should lead to safer vehicle designs, enhanced side impact protection, and reduce human injuries in side impacts.

In addition, as a major benefit of harmonization, introduction of a single universal dummy into regulations and consumer testing

in all regions would enable manufacturers to focus and coordinate resources to improve worldwide occupant safety rather than engineering different safety designs for different dummies.



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The WorldSID Objective

To develop a new, globally accepted, advanced technology, side impact crash test dummy for improved assessment of injury risk to car occupants in lateral collisions.

WorldSID Contributors

AAM	Honda	Porsche
AAMA	INRETS	PSA
ACEA	ISO	Renault
Autoliv	JAMA	SIBER *
Audi	JARI	TNO
BAST	JMLIT	Toyota
BMW	LAB	Transport Canada
CEESAR	Lear	TRC
DaimlerChrysler	MIRA	TRL
DOTRS	NHTSA	TRW
FIAT	Nissan	Volvo
Ford	OSRP	VW
GM	PDB	

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