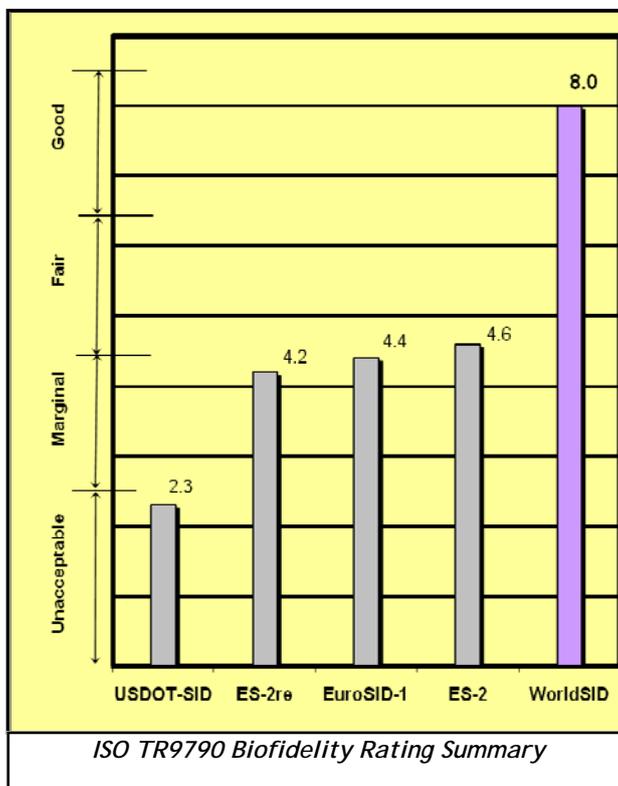


WorldSID Has "Good" Biofidelity

The design and evaluation of occupant protection is very dependent upon the availability of crash dummies that are able to reliably and repeatedly predict possible human injuries.

The WorldSID's biofidelity, a measure of how well a dummy simulates the responses and motions of a human vehicle occupant, is the best of any side impact crash dummy in existence today.

ISO/TR 9790 specifies procedures and a rating scale for evaluating side impact dummy biofidelity performance using a se-



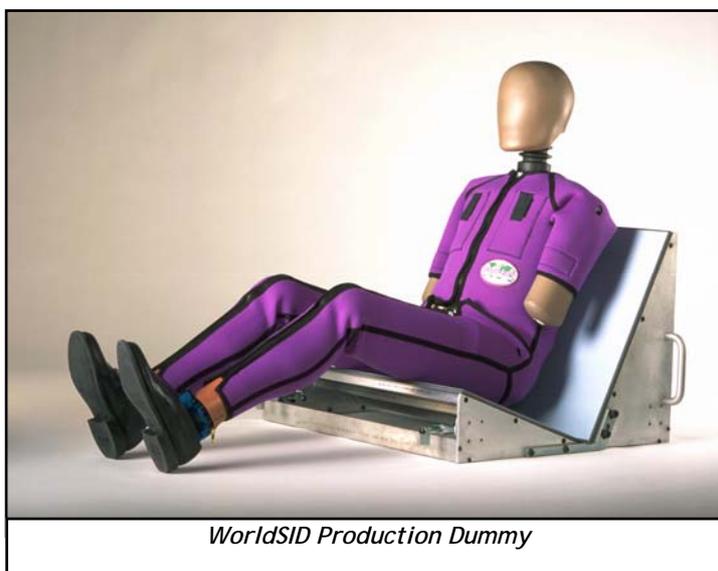
ries of 33 laboratory tests. On this scale, the WorldSID rating is 8.0 ("Good" on the 10 point rating scale). In comparison, other currently used side impact dummies, USDOT-SID, ES2-re, EuroSID-1, and ES-2, have ratings of 2.3, 4.2, 4.4, and 4.6, respectively (biofidelity details can be found in the 2009 ESV paper by Scherer et al.).

The enhanced biofidelity of the WorldSID can help vehicle safety engineers to optimize vehicle designs and enhance side impact protection.

U.S. NHTSA Concludes that WorldSID is an "Improved Side Impact Test Dummy"

The U.S. National Highway Traffic Safety Administration (NHTSA) recently completed an extensive multi-year WorldSID test program involving multiple dummies used in durability, repeatability, reproducibility, biofidelity, and full scale crash tests. Results indicated good durability, improved anthropometry and biofidelity which led to the conclusion that in comparison to other dummies "the WorldSID 50th male dummy is an improved side impact test dummy."

WorldSID - First Worldwide Harmonized Dummy - Will Improve Vehicle Safety



WorldSID Production Dummy

Currently, cars sold in different regions of the world utilize different safety designs because they are tested with different dummies.

Worldwide dummy harmonization, the introduction of a single universal dummy into regulatory and consumer testing in all regions, would enable manufacturers to focus and coordinate design resources to improve worldwide

[Detailed WorldSID Documentation and Production Drawings](#)
See ISO 15830

occupant safety rather than engineering different safety designs using different dummies.

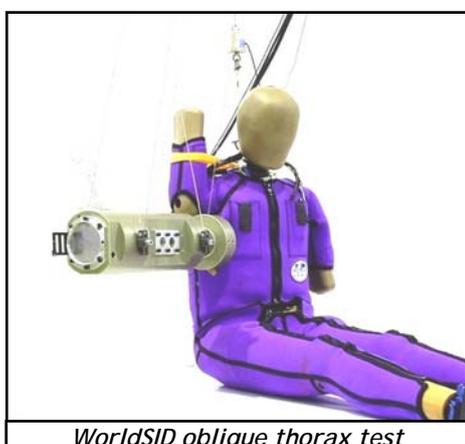
Extensive WorldSID Testing Leads to Design and Test Procedure Refinements

In March of 2004 the WorldSID production design was completed initiating sales and worldwide testing with the production dummy. WorldSID users were requested to provide the Task Group with technical feedback with the goal of making further refinements as needed. Based on user comments several minor changes

were implemented including a change in rib damping material to improve durability, some wire routing changes to simplify assembly, the movement of one of the data recorders to improve high energy impact performance, and a change of the arm positioning system to simplify test setup. Such changes did not affect dummy

biofidelity but have improved the overall user friendliness of the dummy. In addition, a group of world-wide users led by Suzanne Tylko of Transport Canada have collaborated over the last several years to prepare a revised seating position procedure for the WorldSID which has further improved test repeatability.

WorldSID Completes Five Years of Ongoing Production



WorldSID oblique thorax test

WorldSID Sales and Use Information

Contact any of the persons noted below



WorldSID positioned for car test



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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	VRTC
GM	PDB	VW

*EC Sponsored

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