PD ISO/TS 15830-5:2017

BSI Standards Publication

Road vehicles — Design and performance specifications for the WorldSID 50th percentile male side-impact dummy

Part 5: Dummy design updates

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National foreword

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This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 36, *Safety and impact testing*.

A list of all parts in the ISO 15830- series can be found on the ISO website.

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Introduction

The purpose of the ISO 15830- series is to document the design and specifications of this side-impact dummy in a form suitable and intended for worldwide regulatory use.

In 1997, ISO/TC 22/SC 12 initiated the WorldSID 50th percentile adult male dummy development, with the aims of defining a global-consensus side-impact dummy, having a wider range of humanlike anthropometry, biofidelity, and injury monitoring capabilities suitable for regulatory use. Participating in the development were research institutes, dummy and instrumentation manufacturers, governments, and vehicle manufacturers from around the world.

With regard to potential regulatory, consumer information, or research and development use of the ISO 15830- series, users will need to identify which of the permissive (i.e. optional) sensors and other elements defined in ISO 15830-3 are to be used in a given application.

WorldSID drawings in electronic format as of June 6, 2004 are available.

This document is intended to document information and design changes which have become available since the publication of the second edition of the ISO 15830- series, (2013-05-15).

In order to apply the ISO 15830- series properly, it is important that all five parts be used together.

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Road vehicles — Design and performance specifications for the WorldSID 50th percentile male side-impact dummy —

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1 Scope

This document specifies requirements and other design information which became available since 2013 for the WorldSID 50th percentile side-impact dummy, a standardized anthropomorphic dummy for side-impact tests of road vehicles. It is applicable to impact tests involving:

— passenger vehicles of category M_1 and goods vehicles of category N_1;

— impacts to the side of the vehicle structure; and

— impact tests involving use of an anthropomorphic dummy as a human surrogate for the purpose of evaluating compliance with vehicle safety standards.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TR 27957, *Road vehicles — Temperature measurement in anthropomorphic test devices — Definition of the temperature sensor locations*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
angular rate sensor
ARS
sensor which records angular velocity

3.2
data acquisition system
DAS
system that includes sensors, recorders, cables, and other associated hardware

3.3
H-point tool
device which can be inserted into index holes in the dummy pelvis, which provides an external surface for indicating the orientation of the pelvis and an imaginary line connecting the left and right hip ball joint centres

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