



SURFACE VEHICLE RECOMMENDED PRACTICE

J2876™

JUL2022

Issued 2009-03
Revised 2015-05
Reaffirmed 2022-07

Superseding J2876 MAY2015

Low Speed Knee Slider Test Procedure for the Hybrid III 50th Male Dummy

RATIONALE

Update page headers to standard SAE formats.

Section 2.1.1: Changed reference from “SAE EA-23” to “SAE J2856.”

Section 3.1.c: Changed reference from “J211” to “J211/1.”

Section 4.1: Changed the text of “by the SAE Dummy Testing Equipment Subcommittee of the SAE Human Biomechanics and Simulation Standards Committee” to “Prepared by the SAE Dummy Testing Equipment Standards Committee.”

SAE J2876 has been reaffirmed to comply with the SAE Five-Year Review policy.

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Full document details: SAE J2876_202207

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Documents

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1. SCOPE

This procedure establishes a recommended practice for performing a Low Speed Knee Slider test to the Hybrid III 50th Male Anthropomorphic Test Device (ATD or crash dummy). This test was created to satisfy the demand from industry to have a certification test which produces similar results to an actual low energy automotive impact test. An inherent problem exists with the current certification procedure because the normal (2.75 m/s) knee slider test has test corridors that do not represent typical displacements seen in these low energy impact tests. The normal test corridors specify a force requirement at 10 mm and at 18 mm, while the low speed test needs to have a peak displacement around 10 mm.

1.1 Purpose

The intent of this recommended practice is to develop a low speed knee slider test procedure for the H-III50M dummy with a 10 mm deflection range.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J2856 User's Manual for the 50th Percentile Male Hybrid III Dummy

SAE J211/1 Instrumentation for Impact Test - Part 1 - Electronic Instrumentation

2.2 Related Publication

The following publication is provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 Federal Publication

Copies of these documents are available online at <http://quicksearch.dla.mil>.

Motor Vehicle Regulation No. 572 Test Dummies Specifications - Anthropomorphic Test Dummy for Applicable Test Procedures

3. CERTIFICATION PROCEDURES

3.1 Preparation

a. The components required for the knee slider test are:

- Left or right knee assemblies with ball bearing knee sliders
(79051-201 – left knee assembly; 79051-202 – right knee assembly)
- Displacement transducer
(79051-229 – left knee potentiometer; 79051-230 – right knee potentiometer)

NOTE: Knee flesh (78051-5 / 78051-6) is not to be used for this test.