



SURFACE VEHICLE INFORMATION REPORT



J2868 OCT2010

Issued 2010-10

Pedestrian Dummy Full Scale Test Results and Resource Materials

RATIONALE

Not applicable.

FOREWORD

Worldwide, vehicle impacts with pedestrians constitute the most frequent cause of traffic-related fatalities. With this background, the SAE Human Biomechanics and Simulations Standards Steering Committee formed the Pedestrian Dummy Task Force with the goal of developing initial performance specifications for a pedestrian research crash-test dummy which could be used to study the motions and sequence of body component impacts which lead to pedestrian trauma. Additional uses for such a dummy could also include the:

- Study of pedestrian kinematics
- Facilitation of crash reconstruction techniques including pedestrian kinematics
- Assessment of injury probabilities for given vehicle, crash, and countermeasure combinations
- Design of countermeasures
- Evaluation of active systems (pop-up hoods, airbags, etc.)
- Refinement of component test parameters and procedures
- Validation of computer simulations

The primary result of the Pedestrian Dummy Task Force was the preparation of SAE J2782 "Performance Specifications for a Midsize Pedestrian Research Dummy". During the preparation of SAE J2782, the Task Force interacted with several key technical reports which, although not included in J2782, can provide helpful background and test and analysis examples for those working with SAE J2782 or otherwise studying pedestrian safety. These documents and information were collected into this SAE Information Report (SAE J2868) by the SAE Pedestrian Dummy Task Force.

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