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PEOPLE'S REPUBLIC OF CHINA

JJF 1802-2020

Calibration Specification for the Anthropomorphic Test Devices (P Series Child Dummies) for Vehicle Impact Test

汽车碰撞试验用儿童人形试验装置（P系列）校准规范

(English Translation)

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Appendix. Examples of Uncertainty Evaluation for Measurement of Neck Bending Characteristics of GP Series Children's Dummy

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Introduction

This specification is based on JJF 1071 "National Metrology and Calibration Specification Compilation Rules", JJF 1001 "General Metrology Terms and Definition", JJF 1059.1 "Evaluation and Expression of Measurement Uncertainty" as the basic norm, according to the child restraint system the test requirements are formulated with reference to GB 27887 "Restriction System for Child Occupants of Motor Vehicles".

This specification is released for the first time.

Child humanoid test device for automobile crash test (P series) Calibration specification

1 Scope

This specification applies to the calibration of children's humanoid test devices (P series) for automobile crash tests. P series children figures the test device specifically refers to the dummy for newborns, 9 months, 18 months, 3 years, 6 years, and 10 years old, with P0, P0.75, P1.5, P3, P6, P10 indicate.

2 Reference documents this specification refers to the following documents.

GB 27887 Motor vehicle restraint system for child occupants ECER44 Uniform Provisions Concerning the Approval of Restraint Systems for Child Occupants of Motor Vehicles (Child Restraint Systems) for dated reference documents, only the dated version applies to this specification; for undated reference documents, the latest version (including all amendments) is applicable to this specification.

3 term

3.1 P series children's humanoid test device Safety seats and safety belts used by children of all ages in automobiles in the safety performance of child restraint systems Test equipment required for safety.

3.2 Abdominal filling the plastic clay placed on the lumbar spine of the dummy has a rectangular parallelepiped shape.

3.3 Abdominal insert it is used to completely fill the abdominal space between the upper and lower torso and lumbar spine of the P series children's humanoid test device.

Filling made of soft foam.

4 overview

This specification is to apply a specific test force to the P series children's humanoid test device (hereinafter referred to as the P series each component (neck, abdomen, lumbar spine, shoulder, etc.) of the child dummy), and detect the displacement change value of these parts at the same time to obtain Get its shock resistance. Compared with other series of child dummies, P series child dummies have simple structure, it is widely used because

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of its low test cost.

The production of P series child dummy is based on the body structure of newborns, 9 months, 18 months, 3 years, 6 years, and 10 years old.

Metal and polyester are used to replace bones as the torso, and foamed polyurethane is used to replace muscles to cover the torso.

Various types of sensors are installed in the parts, which are used to characterize the magnitudes corresponding to different types of injuries in tests such as automobile collisions.

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