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AS 3629.3—1991

NZS 5466:Part 3:1991

**SUPERSEDED BY:** AS/NZS 3629.3:1997

Australian Standard®  
New Zealand Standard

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**Methods of testing child restraints**

**Part 3: Dynamic testing of upper anchorage components**

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AUS B  
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Standards Association  
of New Zealand



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**The following organizations are represented on the Committees responsible for this Standard:**

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Australian Consumers Association  
Australian Federation of Consumer Organizations  
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Suggestions for improvements to Australian and New Zealand Standards, addressed to the head office of the relevant organizations, are welcomed. Notification of any inaccuracy or ambiguity found in either an Australian or New Zealand Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND



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**Amendment No. 2**

to

**AS 3629.3—1991/NZS 5466.3:1991**

**Methods of testing child restraints**

**Part 3: Dynamic testing of upper anchorage components**

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**CORRECTION**

The 1991 edition of AS 3629.3/NZS 5466.3 is amended as follows; the amendment should be inserted in the appropriate place.

*SUMMARY:* This Amendment applies to Clause 8.

Published on 13 April 1993.

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AMDT  
No. 2  
APR.  
1993

**Page 3 Clause 8 Item (b) 2nd Paragraph**

*Delete* the first sentence 'The webbing shall be pre-tensioned to not more than 20 N.' and *substitute* the following:

'The webbing shall be pre-tensioned to between 200 N and 500 N.'

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Amendment No. 1  
to  
AS 3629.3—1991/NZS 5466.3:1991  
Methods of testing child restraints  
Part 3: Dynamic testing of upper anchorage components

## REVISED TEXT

The 1991 edition of AS 3629.3/NZS 5466.3 is amended as follows; the amendments should be inserted in the appropriate place.

**SUMMARY:** This Amendment applies to Clauses 6 and 8.

Published on 12 October 1992.

Approved for publication in New Zealand on behalf of the Standards Council of New Zealand on 9 July 1992.

AMDT No. 1  
OCT. 1992

**Page 3 Clause 6**

*Delete* the existing Item (c) and *substitute* the following:

- (c) A test mass capable of generating a force of between 7 kN and 7.5 kN under the conditions specified in Clause 8(b).

AMDT No. 1  
OCT. 1992

**Page 3 Clause 8**

1 *Delete* the existing Item (a) and *substitute* the following:

- (a) *Test trolley* The calibration shall be carried out with a rigid mass equivalent to, and in place of, the test apparatus referred to in Clause 6, Items (c) to (g).

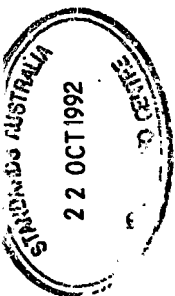
When subject to a velocity change of not less than 13.6 m/s, a deceleration of between 235 m/s<sup>2</sup> and 335 m/s<sup>2</sup> shall be achieved within 30 ms. The deceleration shall remain within the range 235 m/s<sup>2</sup> and 335 m/s<sup>2</sup> for not less than 20 ms, but deceleration values outside this range that occur for periods of not greater than 1 ms may be disregarded.

2 *Delete* the existing Item (b) and *substitute* the following:

- (b) *Test mass* The calibration shall be carried out on a calibrated test trolley with the test apparatus referred to in Clause 6, Items (c) to (g), replacing the rigid mass. The test mass shall be restrained by one length of Class C13 webbing. The webbing shall have an unsupported length of between 200 mm and 205 mm. The webbing shall have elongation of not less than 5 percent and not more than 25 percent when subjected to a tensile load of 7 kN, and determined in accordance with AS 1753/NZS 5432.

SEE AMENDMENT (a)

~~The webbing shall be pre-tensioned to not more than 20 N.~~ In the case of impact-type test trolleys, mount the stop to overcome the inertial effects on the test mass during the run-down to impact.



AS 3629.3—1991  
NZS 5466:Part 3:1991

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**Methods of testing child restraints**

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anchorage components**

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## PREFACE

This Standard is issued as a joint Standard under the terms of the Memorandum of Understanding between Standards Australia and the Standards Association of New Zealand with the objective of reducing technical barriers to trade between the two nations.

Because interconnectivity between anchorages and extension straps from various brands of child restraints will occur, it is essential that there is a means of testing all anchorage straps which are not connected permanently to the restraint, as well as anchorage components supplied with the child restraint, for their dynamic performance under identical forces.

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## STANDARDS AUSTRALIA/STANDARDS ASSOCIATION OF NEW ZEALAND

**Australian/New Zealand Standard**  
**Methods of testing child restraints**

**Part 3: Dynamic testing of upper anchorage components**

**1 SCOPE** This Standard sets out the method for determining the dynamic performance of child restraint upper anchorage components.

**2 APPLICATION** The dynamic test set out in this Standard applies to all child restraint upper anchorage strap components.

**3 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

AS

1753/NZS 5432 Webbing for restraining devices for occupants of motor vehicles

1754/NZS 5411 Child restraint systems for use in motor vehicles

SAE

J211

Instrumentation for impact tests

**4 DEFINITIONS** For the purpose of this Standard, the definitions given in AS 1754/NZS 5411 apply.

**5 PRINCIPLE** The anchorage components are subjected to a dynamic force under deceleration of a test rig to simulate a frontal vehicle impact.

**6 APPARATUS** The following apparatus is required:

- (a) A test trolley of mass not less than 380 kg. The test trolley shall be calibrated in accordance with Clause 8(a).
- (b) A means of measuring deceleration of the test trolley for calibration purposes: Instrumentation shall comply with the requirements of SAE J211 for Channel Class 60.
- (c) ~~A test mass capable of generating a force of between 7 kN and 7.2 kN under the conditions specified in Clause 8(b).~~ <sup>SEE AMENDMENTS (1)</sup>
- (d) A structure capable of guiding the test mass under the conditions specified in Clause 8.
- (e) A structure, rigidly attached to the trolley to which the anchorage component is attached.
- (f) A length of Class C13 webbing as specified in AS 1753/NZS 5432.
- (g) Means of measuring the force in the webbing referred to in Item (f).
- (h) For impact-type test trolleys, a stop to overcome the inertial effects of the test mass during the run-up to impact.

**7 SAMPLING AND SAMPLE PREPARATION** Test samples shall be new, unused, and not previously tested components.

Where applicable, test samples shall be supplied attached to a 500 mm length of Class C13 webbing. All stitching shall be in accordance with the manufacturer's normal practice.

**8 CALIBRATION OF APPARATUS** The apparatus shall be calibrated as follows:

- (a) *Test trolley* The calibration shall be carried out with a rigid mass equivalent to, and in place of, the test apparatus referred to in Clause 6, Items (c) to (g).

Deceleration shall be between 235 m/s<sup>2</sup> and 335 m/s<sup>2</sup> achieved within 30 ms of start of deceleration from a velocity of not less than 13.6 m/s. The deceleration shall remain substantially within the range 235 m/s<sup>2</sup> and 335 m/s<sup>2</sup> for not less than 20 ms, but deceleration values outside this range that occur for periods of not greater than 1 ms may be disregarded. <sup>SEE AMENDMENTS (1)</sup>

- (b) *Test mass* The calibration shall be carried out on a calibrated test trolley with the test apparatus referred to in Clause 6, Items (c) to (g), replacing the rigid mass. The test mass shall be restrained by one length of Class C13 webbing. The webbing shall have an unsupported length of between 200 mm and 205 mm. The webbing shall have elongation of not less than 5 percent and not more than 25 percent when subjected to a tensile load of 7 kN, and determined in accordance with AS 1753/NZS 5432.

The webbing shall be pre-tensioned to not more than 20 N. In the case of impact-type test trolleys, mount the stop to overcome the inertial effects on the test mass during the run-down to impact.

<sup>SEE AMENDMENTS (1)</sup>

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<sup>SEE AMENDMENT (2)</sup>