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## Road vehicles — Anchorages in vehicles and attachments to anchorages for child restraint systems —

### Part 2: Top tether anchorages and attachments

*Véhicules routiers — Ancrages dans les véhicules et attaches aux ancrages pour systèmes de retenue pour enfants —*

*Partie 2: Ancrages pour fixation supérieure et attaches*



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## Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Dimensions and installation requirements</b> .....	<b>2</b>
<b>5 Child restraint top tether assembly specifications</b> .....	<b>12</b>
<b>Annex A (normative) Conventional top tether anchorage zones</b> .....	<b>15</b>
<b>Bibliography</b> .....	<b>22</b>

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 13216-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 12, *Passive safety crash protection systems*.

ISO 13216 consists of the following parts, under the general title *Road vehicles — Anchorages in vehicles and attachments to anchorages for child restraint systems*:

— *Part 1: Seat bight anchorages and attachments*

— *Part 2: Top tether anchorages and attachments*

Part 3, *Classification of child restraint dimensions and vehicle space*, is under preparation.

This corrected and reprinted version of ISO 13216-2:2004 incorporates the following correction:

— The descriptive text for Figure 9 on page 14 has been replaced.

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## Introduction

This part of ISO 13216 specifies top tether anchorages and attachments: a means of limiting the pitch rotation of child restraint systems (CRS) when used in conjunction with the specifications of ISO 13216-1 and which can also be used in conjunction with seat belt systems for CRS installation.

The main body of this document presents a wide installation zone for top tether anchorages intended for CRS with *rigid* ISOFIX seat bight attachments — the “ISOFIX zone” — developed and evaluated in dynamic tests with CRS in combination with rigid ISOFIX seat bight attachments<sup>1)</sup>.

Annex A specifies top tether anchorage installation zones, referred to as “conventional zones”, which are compatible with current US and Canadian regulations (those required under current Australian regulations are narrower). These conventional zones are applicable to all child restraint systems intended for use with top tether attachments and can be combined with any type of lower attachments: ISOFIX, LATCH or conventional seat belt attachments.

The ISOFIX zones were developed in order to allow more design possibilities for locating the top tether anchorage within the vehicle structure. They are based on the conventional zones, but test results have shown that CRS with rigid ISOFIX attachments can accept wider top tether angles than those in the conventional zones, in both the vertical and horizontal planes, without a reduction in performance.

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1) The application of ISOFIX zones to child restraint systems in combination with other types of attachments (LATCH or conventional seat belt attachments) had not been evaluated at time of publication.