

Australian Standard[®]

**Commercial road vehicles—Mechanical
connections between towing vehicles**

**Part 4: Strength tests for pin-type
couplings and drawbar eyes for rigid
drawbars (ISO 12357-1:1999, MOD)**



This Australian Standard® was prepared by Committee ME-053, Heavy Road Vehicles. It was approved on behalf of the Council of Standards Australia on 22 August 2008. This Standard was published on 21 October 2008.

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 - Australian Trucking Association
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 - Department for Planning and Infrastructure, WA
 - Department of Defence, Australia
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 - Road Transport Forum, New Zealand
 - Society of Automotive Engineers, Australasia
 - The Commercial Vehicle Industry Association of Australia
 - The Institute of Road Transport Engineers of New Zealand
 - Truck Industry Council, Australia
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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2213.4—2008

**Commercial road vehicles — Mechanical connections between towing vehicles
Part 4: Strength tests for pin-type couplings and drawbar eyes
for rigid drawbars (ISO 12357-1:1999, MOD)**

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Truck Industry Council

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PREFACE

This Standard was prepared by the Standards Australia Committee ME-053, Heavy Road Vehicles, to supersede AS 2213.4—1998, *Commercial road vehicles—Mechanical connections between towing vehicles*, Part 4: *Strength test for pin-type couplings and drawbar eyes for rigid drawbars*.

This Standard is an adoption with national modifications and has been reproduced from ISO 12357:1999 and ISO 12357:1999/Cor.1:2007, *Commercial road vehicles—Drawbar couplings and eyes for rigid drawbars—Part 1: Strength tests for general cargo centre-axle trailers*.

It should be noted that both the number and title of the source document have been altered by Technical Corrigendum 1, which is added at the end of the source text.

Test conditions and strength requirements for drawbar couplings and corresponding drawbars for use on rigid drawbar trailers having a maximum design total mass exceeding 3.5 tonnes are given in Case A of ISO 12357-2:2007, which is reproduced as Annex ZA of this Standard.

The purpose of this Standard is to specify test conditions and strength requirements to be met by drawbar couplings and corresponding drawbar eyes for rigid drawbars for use with centre-axle trailers with a technical maximum mass *C* exceeding 3.5 tonnes.

This Standard is part of the AS 2213 series, *Commercial road vehicles—Mechanical connections between towing vehicles*, which covers the design and manufacture of mechanical couplings comprises the following parts:

Part 1: Selection and marking of pin-type couplings and drawbar eyes

Part 2: 50 mm pin-type couplings and drawbar eyes

Part 3: 40 mm pin-type couplings and drawbar eyes

Part 4: Strength tests for pin-type couplings and drawbar eyes for rigid drawbars

Part 5: Strength tests for pin-type couplings and drawbar eyes for hinged drawbars

As this Standard is reproduced from an international standard, the following applies:

- (a) Its number appears on the cover and title page while the international standard number appears only on the cover.
- (b) In the source text ‘this International Standard’ should read ‘this Australian Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
ISO		AS	
1102	Commercial road vehicles—50 mm drawbar—Interchangeability	2213	Commercial road vehicles—Mechanical connections between towing vehicles
		2213.2	Part 2: 50 mm pin-type couplings and drawbar eyes
8755	Commercial road vehicles—40 mm drawbar eye—Interchangeability	2213.3	Part 3: 40 mm pin-type couplings and drawbar eyes

Only international references that have been adopted as Australian Standards have been listed.

AUSTRALIAN STANDARD

Commercial road vehicles—Mechanical connections between towing vehicles

Part 4:

Strength tests for pin-type couplings and drawbar eyes for rigid drawbars (ISO 12357-1:1999, MOD)

1 Scope

This International Standard specifies the test conditions and strength requirements to be met by drawbar couplings (see ISO 3584) and the corresponding drawbar eyes (see ISO 1102 and ISO 8755) for rigid drawbars, which are provided for use with centre-axle trailers with a technical maximum mass C exceeding 3,5 t (tonnes).

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 1102, *Commercial road vehicles — Mechanical connections between towing vehicles and trailers — 50 mm drawbar couplings.*

ISO 1176, *Road vehicles — Masses — Vocabulary and codes.*

ISO 3584, *Road vehicles — Mounting of mechanical coupling devices on rear cross members of trucks.*

ISO 8755, *Commercial road vehicles — Mechanical connections between towing vehicles and trailers — 40 mm drawbar coupling.*

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1
S-value
mass imposed vertically on the coupling under static conditions by the centre-axle trailer loaded to its maximum design total mass

3.2
centre-axle trailer
towed vehicle equipped with a towing device which cannot move vertically (in relation to the trailer), and in which the axle(s) is(are) positioned close to the centre of gravity of the vehicle (when uniformly loaded) such that only a small static vertical load, not exceeding 10 % of the load corresponding to the maximum design total mass of the trailer or load of 10 kN (whichever is the smaller), is transmitted to the drawing vehicle