

Australian Standard™

**Commercial road vehicles — Mechanical
connections between towing vehicles
Part 2: 50 mm pin-type couplings and
drawbar eyes**



This Australian Standard was prepared by Committee ME-053, Heavy Road Vehicles. It was approved on behalf of the Council of Standards Australia on 29 June 2001 and published on 6 August 2001.

The following interests are represented on Committee ME-053:

Australian Automobile Association
Australian Automotive Aftermarket Association
Australian Road Transport Suppliers Association
Australian Trucking Association
AUSTROADS
Commercial Vehicle Industry Association of Australia
Commonwealth Department of Transport and Regional Services (Australia)
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Australian Standard™

**Commercial road vehicles—Mechanical connections between towing vehicles
Part 2: 50 mm pin-type couplings and drawbar eyes**

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee ME-053, Heavy Road Vehicles to supersede, AS 2213.2—1998, *Commercial road vehicles—Mechanical connections between towing vehicles, Part 2: 50 mm pin-type couplings and drawbar eyes*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide the dimensions of 50 mm pin-type couplings and 50 mm drawbar eyes to permit interchangeability between towing vehicles and trailers fitted with these couplings.

This Standard is identical with and has been reproduced from ISO 1102:1986, *Commercial road vehicles—Mechanical connections between towing vehicles and trailers—50 mm drawbar coupling*.

The objective of this revision is to incorporate the correction amendment, AS 2213.2—1998 Amendment 1:1998 into the Standard.

This Standard is Part 2 of AS 2213, *Commercial road vehicles—Mechanical connections between towing vehicles*, which deals with the design and manufacture of mechanical couplings and which is published in parts as follows:

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

Part 2: 50 mm pin-type couplings and drawbar eyes (this Standard)

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

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

Part 5: Strength test 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.
- (d) In the source text 'drawbar coupling' should read 'pin-type coupling'.
- (e) In the source text Figure 4 shows two independent methods of vertical articulation.
- (f) In the source text Figure 5 shows two independent methods of rotation articulation.

References to International Standards should be replaced by references, where appropriate, to the following Australian Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
ISO		AS	
3584	Road vehicles—Mounting of mechanical coupling devices on rear cross members of trucks	—	
175	Commercial road vehicles—Mechanical connections between towing vehicles and trailers—40 mm drawbar couplings	2213	Commercial road vehicles—Mechanical connections between towing vehicles
		2213.3	Part 3: 40 mm pin-type couplings and drawbar eyes

AUSTRALIAN STANDARD

Commercial road vehicles—Mechanical connections between towing vehicles**Part 2:
50 mm pin-type couplings and drawbar eyes****1 Scope and field of application**

This International Standard specifies the essential dimensions of a 50 mm drawbar coupling and a 50 mm drawbar eye to permit interchangeability between towing vehicles and trailers equipped with these connections.

These mechanical connections are not interchangeable with the 40 mm couplings specified in ISO 8755.

This International Standard applies to mechanical connections designed for commercial vehicles and trailers, the maximum total mass of which is above 3,5 t.

NOTE — Terms relating to drawbar couplings are illustrated in the annex (figures 6, 7 and 8) in order to avoid misunderstandings.

2 Reference

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

3 Interchangeability dimensions

The following specifications are set to ensure interchangeability:

- drawbar eye (see 3.1);
- travel angles of the drawbar coupling (see 3.2).

NOTES

1 Dimensions for mounting of drawbar couplings on the rear cross members of towing vehicles are given in ISO 3584.

2 Dimensions to ensure operating clearance between towing vehicles and trailers will form the subject of a future International Standard.

3.1 Drawbar eye

The dimensional data of the drawbar eye ensuring interchangeability are given in figure 1. (Details not specified are left to the manufacturer's choice.)

The use of a sleeve is recommended to minimize damage to the inside of the eye, the sleeve being easily replaced when worn out.

Dimensions of the fitted sleeve are specified in figure 2. Installation of a non-slotted sleeve shall be such that it does not work loose during service.

3.2 Travel angles of the drawbar coupling

The drawbar coupling tested separately, i.e. not mounted on the towing vehicle, shall be designed so that it allows for the travel angles specified in figures 3, 4 and 5, when the drawbar is fixed to the drawbar coupling.