

1235—1991 **Roof racks and roof bars for passenger vehicles** 17pp F

Specifies requirements for the design, construction, testing and labelling of load-carrying racks and bars intended for mounting on or above the roofs of passenger vehicles. Applies to roof bars and roof racks which attach to the roof gutters or other attachment points. Types covered are general purpose roof racks and roof bars, ski bars, surfboard or sailboard bars, bicycle racks, boat racks, luggage container racks, spoilers, fishing rod holders and single-sided roof racks. Performance tests are included in appendices.

Committee CS/79: Supersedes AS 1235—1989: Publication date 1991-06-10:  
ISBN 0 7262 6927 1

AS 1235—1989

Australian Standard®

---

**Roof racks and roof bars for passenger vehicles**

---



STANDARDS AUSTRALIA



This Australian Standard was prepared by Committee CS/79, Car Roof Bars. It was approved on behalf of the Council of Standards Australia on 30 June 1989 and published on 11 September 1989.

---

The following interests are represented on Committee CS/79:

Australian Automobile Association  
Australian Automotive Aftermarket Association  
Australian Consumers Association  
Australian Federation of Consumer Organizations  
Australian Retailers Association  
Federal Chamber of Automotive Industries  
Federation of Automotive Products Manufacturers  
Institute of Automotive Mechanical Engineers  
Metal Trades Industry Association of Australia  
Ministry of Consumer Affairs, Victoria  
Society of Automotive Engineers—Australia

---

*Review of Australian Standards.* To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

---

This Standard was issued in draft form for comment as DR 88007.

Australian Standard®

---

**Roof racks and roof bars for  
passenger vehicles**

---

First published as AS 1235—1973.  
Second edition—1983.  
Third edition—1989.

## PREFACE

This Standard was prepared by Standards Australia's Committee on Car Roof Bars to supersede AS 1235—1983, *Roof bars for motor vehicles*.

The first edition of this Standard originated from a request by the Road Safety Council of New South Wales, now disbanded. The request originally related to the carriage of surfboards on car roofs, but as the result of a preliminary conference on the subject it was decided that this should be extended to include all types of roof bars.

This edition has been expanded to cover roof racks as well as roof bars including a range of specialist racks and bars. It is based on the German Standard, DIN 75302 *Roof racks for passenger cars*, but has been modified to suit the conditions and the types of products found in Australia.

The Standard directs attention to the fact that the maximum loads specified for roof bars may be greater than the maximum loads for car roofs recommended by vehicle manufacturers, and also to statutory requirements regarding the maximum permissible projection from vehicles.

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the Head Office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

## CONTENTS

	<i>Page</i>
<b>SECTION 1. SCOPE AND GENERAL</b>	
1.1 SCOPE.....	4
1.2 REFERENCED DOCUMENTS .....	4
1.3 DEFINITIONS .....	4
<b>SECTION 2. DESIGN AND CONSTRUCTION</b>	
2.1 DESIGN .....	6
2.2 CORROSION PROTECTION .....	6
2.3 EASE OF FITTING .....	6
<b>SECTION 3. PERFORMANCE TESTING</b>	
3.1 GENERAL .....	7
3.2 VIBRATION TEST .....	7
3.3 SIMULATED LOADING TESTS .....	7
<b>SECTION 4. INSTRUCTIONS AND MARKING</b>	
4.1 INSTRUCTIONS .....	8
4.2 MARKING .....	8
<b>APPENDICES</b>	
A VIBRATION TEST....	9
B SIMULATED LOADING TESTS .....	11
C BELGIAN BLOCK PAVEMENT .....	16

## STANDARDS AUSTRALIA

## Australian Standard

## Roof racks and roof bars for passenger vehicles

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This Standard specifies requirements for load-carrying bars and racks intended for mounting on or above the roofs of passenger vehicles.

It is applicable to the following types of roof racks and roof bars (which may or may not attach to the roof gutters of the vehicle):

- (a) General purpose roof bars.
- (b) General purpose roof rack.
- (c) Ski bars.
- (d) Surfboard or sailboard bars.
- (e) Bicycle rack.
- (f) Boat rack.
- (g) Luggage container rack.
- (h) Spoiler.
- (i) Fishing rod holder.
- (j) Single-sided roof rack.

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

- AS  
2331 Methods of test for metallic and related coatings  
2331.3.1 Method 3.1: Corrosion and related property tests—Neutral salt spray (NSS) test.

Federal Department of Transport  
Australian Design Rules for Motor Vehicles and Trailers (3rd Edition)

**1.3 DEFINITIONS.** For the purposes of this Standard the following definitions apply.

**1.3.1 Roof rack**—a frame intended for mounting on the roof of a passenger vehicle.

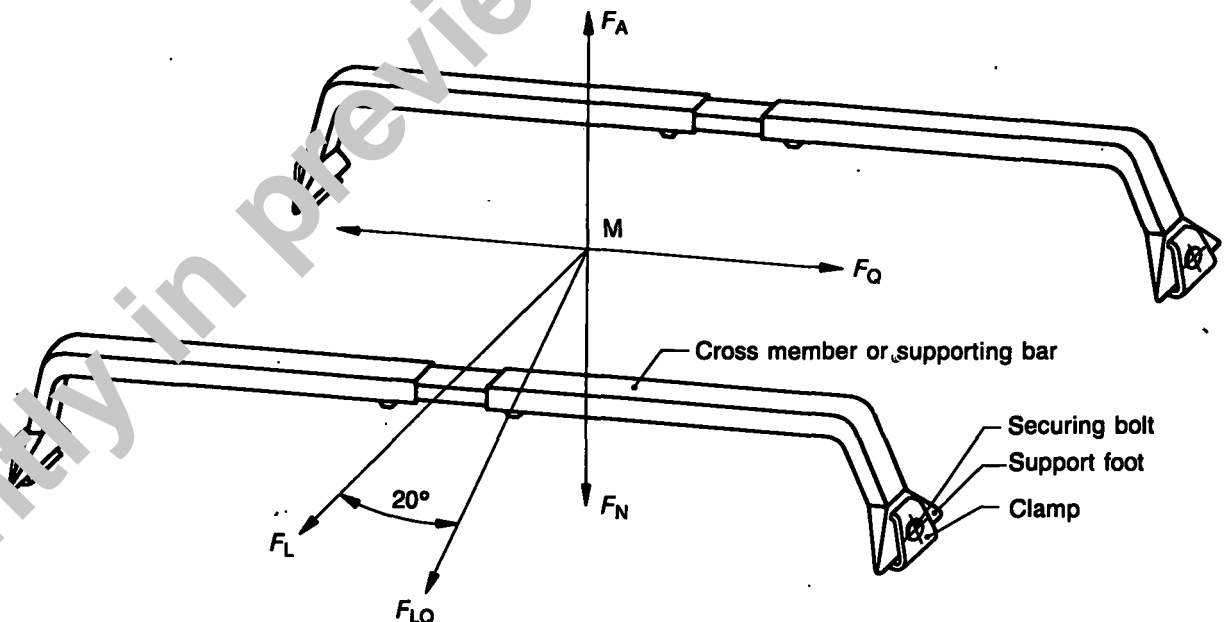
**1.3.2 Roof bars**—separate front and rear bars and supports, intended for mounting on the roof of a passenger vehicle (see Figure 1.1).

**1.3.3 Passenger vehicle**—a passenger car, forward-control passenger vehicle or off-road passenger vehicle as defined in the Australian Design Rule (ADR) classifications M, MA and MC.

**1.3.4 Seating reference plane (SRP)**—the vertical plane which bisects the driver's seat and runs longitudinally through the vehicle parallel to the centreline of the vehicle (see Figure 1.2).

NOTE: The seating reference plane may be taken as bisecting the head restraint of the driver's seat for vehicles with bench seats.

**1.3.5 Nominal width of the turret of a vehicle**—twice the distance from the centreline of the vehicle to a reference point midway between the seating reference plane and the vehicle's maximum width station (see Figure 1.2).



NOTE: The directions  $F_L$ ,  $F_{LQ}$ ,  $F_O$ , and  $F_A$  are referred to in Appendix B.

FIGURE 1.1 TYPICAL ROOF BARS