

Specification for

Vehicle support stands for cars and light vans

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee AUE/9, Automobile details and accessories, upon which the following bodies were represented:

- Automobile Association
- Consumer Policy Committee of BSI
- Department of Trade and Industry (Consumer Safety Unit, CA Division)
- Department of Transport
- Garage Equipment Association
- Institute of Trading Standards Administration
- Petrol Pump Manufacturers Association
- Society of Motor Manufacturers and Traders Limited

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Foreword

This British Standard has been prepared under the direction of Technical Committee AUE/9 to establish a safe standard of performance for vehicle support stands and to ensure that they are sufficiently robust so that under normal use they will not fail. The standard also aims to ensure that the vehicle support stands are constructed and designed so that they will be stable and will not damage the vehicle when used in the intended manner.

This second edition of BS AU 223 supersedes BS AU 223:1988 which is withdrawn. It constitutes a technical revision undertaken to tighten requirements concerning stability and improve and clarify other areas arising from the application of the first edition.

Product certification. Users of this British Standard are advised to consider the desirability of third party certification of product conformity with this British Standard based on testing and continuing product surveillance which may be coupled with assessment of a supplier's quality systems against the appropriate standard in the BS EN ISO 9000 series.

Enquiries as to the availability of third party certification schemes are forwarded by BSI to the Association of British Certification Bodies. If a third party certification scheme does not already exist, users should consider approaching an appropriate body from the list of Association members.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This British Standard specifies requirements for the design, construction, performance and marking of vehicle support stands for cars and light vans.

2 Normative reference

This British Standard incorporates, by undated reference, provisions from another publication. This normative reference is made at the appropriate place in the text and the cited publication is listed on the inside back page. The latest edition of the cited publication applies, together with any amendments.

3 Definitions

For the purposes of this British Standard, the following definitions apply.

3.1

vehicle support stand

a device of fixed or adjustable height on which an appropriate part, e.g. axle, chassis, of a raised vehicle is supported

NOTE Where the device has an adjustable height, the height is not intended to be varied when the device is loaded. Some examples of typical vehicle support stands are illustrated in Figure 1.

3.2

vehicle

a passenger car or passenger car derivative of classification M₁ or N₁. A towed unit such as a caravan or a trailer of classification O₁

NOTE See Annex A for the definitions of these vehicle categories.

3.3

rated capacity (SWL or Safe Working Load)

the capacity rated by the manufacturer as the maximum load that is to be supported by a single vehicle support stand at all times

4 Construction and design

4.1 Construction

There shall be a minimum area of 5 000 mm² in contact with the ground to avoid instability due to sinking.

4.2 Clearance

There shall be a minimum clearance of 25 mm between the bottom of the upper column at its lowest possible setting and the ground.

4.3 Capacity

The rated capacity of a vehicle support stand shall be not less than 1 000 kg, and not more than 2 000 kg.

4.4 Engagement head

The engagement head of a vehicle support stand shall:

- a) have a projected plan area of at least 3 000 mm² (see Figure 2); and
- b) be of such a shape as to provide positive retention of the imposed load.

When raised to the maximum height required by the test procedure given in Annex B, there shall be a total lateral movement of the engagement head of not more than 10 mm.

4.5 Height adjustment mechanism

Where a vehicle support stand incorporates a means of adjusting its height, the height adjustment mechanism shall conform to a) to c), and d) if applicable.

- a) It shall be permanently attached to the stand.

NOTE For a stand with a pin type adjustment, the pin is to be attached to the stand by means of a metal linkage, e.g. chain or flexible wire.

- b) It shall be capable of easy and positive adjustment when the stand is not loaded.
- c) With the stand on a horizontal base it shall not be possible to operate the height adjustment mechanism with a direct force of less than 100 N or a torque of less than 30 N m when a vertical force of 1 000 N is applied through the centre of the engagement head.
- d) If it is possible to use the stand incorrectly assembled, it shall conform to c) when tested incorrectly assembled.

4.6 Finish

Surfaces shall not have any hazardous projections. All sharp edges shall be removed by rounding, bevelling, or other means of deburring to prevent injury to the operator.