

BRITISH STANDARD

Design, construction performance and marking of vehicle support stands for cars and light vans – Specification

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BSi
British Standards

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 13 and a back cover.

Foreword

Publishing information

This British Standard was published by BSI and came into effect on 30 November 2006. It was prepared by Technical Committee AUE/9, *Automobile details and accessories*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS AU 223a:1995, which is withdrawn.

Information about this document

This British Standard establishes a safe standard of performance for vehicle support stands and to ensure that they are sufficiently robust so that under normal use they do not fail. The standard also aims to ensure that the vehicle support stands are constructed and designed so that they are stable and do not damage the vehicle when used in the intended manner.

It constitutes a technical revision undertaken to specify requirements concerning stability and improve and clarify other areas arising from the application of the first edition, which fails to address certain aspects of some products which are now in circulation. It also aims to take account of changes in the common method of use resulting from current vehicle design.

Product certification/inspection/testing. Users of this British Standard are advised to consider the desirability of third-party certification/inspection/testing of product conformity with this British Standard. Users seeking assistance in identifying appropriate conformity assessment bodies or schemes may ask BSI to forward their enquiries to the relevant association.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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 references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN 228:1993, *Specification for unleaded petrol (gasoline) for motor vehicles*

3 Terms and definitions

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

3.1 vehicle support stand

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

passenger car or passenger car derivative of classification M₁ or N₁. A towed unit such as a caravan or a trailer of classification O₁ or O₂

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

3.3 rated capacity (SWL or Safe Working Load)

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

3.4 tee section tool

device used in conjunction with the test rig, to replicate the sill of a vehicle; used to impose a test load upon the support stand being examined

NOTE See Figure B.1.

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.