

Specification for

**Performance
requirements for
original equipment
jacks for passenger cars
and light vans**

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Committees responsible for this British Standard

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 Department of Trade and Industry (Consumer Safety Unit, CA Division)
 Department of Transport
 Garage Equipment Association
 Institute of Trading Standards Administration
 Motor Agents Association Ltd.
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 Royal Automobile Club
 Society of Motor Manufacturers and Traders Ltd.

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Foreword

This British Standard has been prepared under the direction of the Automobile Standards Policy Committee and supersedes BS AU 165:1977, which is withdrawn. It establishes a standard of performance to ensure the safety of jacks supplied with passenger cars and light vans for the purpose of changing wheels and fitting snow chains as recommended in the vehicle manufacturer's manual.

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 4, 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 materials, finish and safe performance of jacks supplied as original equipment with passenger cars of the European Communities classification category M₁ and light vans of the European Communities classification N₁ (see Appendix A).

2 General

2.1 The jack shall be suitable for locating at the jacking points as specified by the vehicle manufacturer and shall be capable of being operated without fouling any part of the vehicle with the doors closed.

2.2 It shall not be possible to raise the vehicle with a jack that has been incorrectly assembled from its component parts.

2.3 Means shall be provided to prevent over-travel of the jack.

2.4 Instructions for the safe use of the jack shall be provided.

2.5 Written instructions for the use of the jack shall be provided in the vehicle manufacturer's instruction manual, together with the following information.

NOTE It may be in a style compatible with the remainder of the vehicle manual text.

- a) The vehicle jack is only for wheel changing and snow chain attachment (if appropriate).
- b) Do not place any part of the body under the vehicle when the vehicle is supported by the jack alone. Note that it is very dangerous for users to go underneath a vehicle supported only by the vehicle jack.

For repair work where the user needs to go underneath, special vehicle supports are to be used.

c) Use chocks when stopped on a hill or cambered road. Seek advice on the number, position and placement of chocks from the manufacturer's handbook. Note that the jack is designed only for use on a gradient of less than 8 % and a camber of less than 5.5 %.

d) When using the vehicle jack for wheel changing at the roadside:

- 1) use hazard lights;
- 2) apply the handbrake;
- 3) place gears in "1" or "Reverse" on manual gear boxes, or "P" on automatic transmissions;
- 4) occupants should leave the vehicle;
- 5) place the jack at the placement position advised by the vehicle manufacturer;

6) give consideration to advice for jacking on soft ground;

7) do not run the engine when the vehicle is jacked up;

8) loosen wheel nuts slightly prior to jacking up the vehicle;

9) only use the supplied jack with the vehicle make and model marked on the jack.

e) When wheel changing at the roadside:

1) clean the brake drum/mounting flange before fitting a wheel;

2) screw up the wheel nuts before lowering the vehicle;

3) finally tighten the wheel nuts, to the manufacturer's recommended torque, after lowering the vehicle.

f) Stow the jack in its stowing point or in a covered container in the vehicle.

3 Materials

Strength and other essential physical properties of the component parts of the jack shall be adequate for use with the vehicle with which it is supplied. All castings, which shall be in accordance with the appropriate British Standards, shall be of uniform quality, free of blow holes, porosity, hard spots, shrinkage, cracks or other deleterious defects which might adversely affect the intended use. Processes such as peening or plugging shall not be used on castings or forgings for reclaiming any part of the jack. Lubricants, hydraulic fluids and paints shall be compatible with seal materials, where seals are used.

4 Finish

All cast, forged, moulded or welded parts shall be free of sand, dirt, fins, scale, flux and other harmful extraneous materials. All external surfaces shall be free of burrs, fins and sharp edges. At the delivery stage the surfaces shall be protected against corrosion, and moving parts shall be lubricated as necessary.

5 Dimensions

When tested in accordance with Appendix B, the jack shall have adequate extension for use on the vehicle with which it is supplied.