

BS AU 159g:2013

**Specification for repairs to
tyres for motor vehicles
used on the public highway**

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Published by BSI Standards Limited 2013

ISBN 978 0 580 75896 6

ICS 43.020; 83.160.10

The following BSI references relate to the work on this standard:

Committee reference AUE/3

Draft for comment 13/30249071 DC

Publication history

First edition, 1973

Second edition, November 1973

Third edition August, 1981

Fourth edition August, 1990

Fifth edition December, 1997

Sixth (present) edition, November 2013

Amendments issued since publication

Date	Text affected
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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 November 2013. It was prepared by Technical Committee AUE/3, *Renovation of tyres for motor vehicles*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS AU 159f:1997, which is withdrawn.

Information about this document

Repairs for limited run-flat tyres and temporary use spare tyres are not covered by this British Standard. Repairs to inner tubes are covered, but repairs for commercial vehicle steel diagonal ply tyres are not, as this type of tyre is considered obsolete.

The 1973 edition of this British Standard specified the use of an inner tube to repair very small penetrations in tubeless tyres. This method is not specified in the 1981, 1990, 1997 editions or the present edition.

Good workshop practice for tyre repair is included in this British Standard, with emphasis on conditions during vulcanizing to ensure that carcasses are cured in the relaxed shape.

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.

Requirements in this standard are drafted in accordance with *The BSI guide to standardization – Section 2: Rules for the structure, drafting and presentation of British Standards*, subclause 11.3.1, which states, "Requirements should be expressed using wording such as: 'When tested as described in Annex A, the product shall ...'". This means that only those products that are capable of passing the specified test will be deemed to conform to this standard.

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.

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1 Scope

This British Standard specifies requirements for the repair of diagonal ply and radial ply pneumatic tyres for motorcycles, scooters, cars, commercial and agricultural vehicles for use on the public highway. It specifies inspection procedures, performance criteria, repair materials, and marking requirements, for both tubed and tubeless tyres.

The repair of tubes and inflation valves is also covered.

This British Standard is not applicable to:

- a) tyres designed for use on pre-1933 vehicles, as their design and construction can be unique and outside the range of tyres in current use;
- b) T-type temporary use spare tyres;
- c) temporary seals, i.e. externally inserted plugs, intended to allow the vehicle to be driven for a limited period, until a permanent repair can be effected;
- d) use of liquid sealants introduced into tubed or tubeless tyres to aid the air retention property (see Clause 9);
- e) tyres containing sealant gel; and
- f) specialist repairs carried out by the original tyre manufacturer.

2 Terms and definitions

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

NOTE Figure 1 to Figure 7 supplement the definitions given in this clause.

2.1 Structure

2.1.1 bias-belted tyre

pneumatic tyre of the diagonal ply type, with the carcass restricted by a belt comprising two or more layers of inextensible cord material laid at alternate angles not greater than those of the carcass

NOTE For the purposes of this British Standard, a bias-belted tyre may be treated as a diagonal ply tyre.

2.1.2 diagonal ply tyre

pneumatic tyre in which the ply cords extend to the bead and lie at alternate angles substantially less than 90° to the centreline of the tread

(O1) Also known as cross ply tyre.

NOTE The angle varies between manufacturers and applications.

2.1.3 radial ply tyre

pneumatic tyre in which the ply cords extend to the bead and lie at approximately 90° to the centreline of the tread, the carcass stabilized by an essentially inextensible circumferential belt

2.1.4 radial ply self supporting run flat tyre (SST)

pneumatic tyre in which the ply cords extend to the bead and lie at approximately 90° to the centerline of the tread, the carcass stabilized by an essentially inextensible circumferential belt

NOTE Such tyres have a specially reinforced sidewall to enable them to perform when deflated. Limited in-service conditions might apply when run deflated, refer to brand manufacturer.