

BS AU 159g:2013

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

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Contents

Foreword *iii*

1	Scope	1
2	Terms and definitions	1
3	Tyre performance	14
4	Tyre inspection before and during repair	14
5	Repair and tyres suitable for repair	14
6	Tyre inspection after repair	14
7	Marking	15
8	Repair materials	15
9	Sealants	15
10	Tube and inflation valves	15

Annexes

Annex A (normative)	Initial inspection	16
Annex B (normative)	Minor repairs to radial ply tyres for cars, commercial and agricultural vehicles	18
Annex C (normative)	Limits on or repairs for radial car tyres	19
Annex D (normative)	Limits on major repairs for radial ply tyres for commercial vehicles	22
Annex E (normative)	Limits on repairs for radial ply tyres for agricultural vehicles	24
Annex F (normative)	Minor repairs to diagonal ply tyres for cars, commercial and agricultural vehicles	25
Annex G (normative)	Limits on repairs for diagonal ply car tyres	26
Annex H (normative)	Limits on major repairs for diagonal ply tyres for commercial vehicles	28
Annex I (normative)	Limits on repairs for Diagonal ply tyres for agricultural vehicles	29
Annex J (normative)	Limits on minor repairs for motorcycle and scooter tyres	30
Annex K (normative)	Tyre repair preparation and building	31
Annex L (normative)	Vulcanization	32
Annex M (normative)	Repairs to inner tubes and inflation valves	33
Annex N (informative)	Calculated values of repairable area of area <i>T</i> based on nominal section width and percentage	36

List of figures

Figure 1	– Typical section of diagonal ply car tyre	5
Figure 2	– Typical section of radial ply car tyre	6
Figure 3	– Typical section of radial ply self supporting car tyre (SST)	7
Figure 4	– Typical section of diagonal ply commercial tyre	8
Figure 5	– Typical section of radial ply commercial vehicle tyre	9
Figure 6	– Typical section of diagonal ply agriculture tyre	10
Figure 7	– Typical Section of Radial Ply Agricultural Tyre	10
Figure B.1	– Repairable and non-repairable areas for penetration damaged tyres	19
Figure C.1	– Repairable and non-repairable areas for radial ply car tyres	21
Figure C.2	– Typical sidewall damage for radial ply car tyres	21
Figure D.1	– Repairable areas for radial commercial vehicle tyres	23
Figure D.2	– Non-repairable area of radial ply commercial vehicle tyres (A to B)	23
Figure D.3	– Typical Sidewall damage for radial ply commercial vehicle tyres	24
Figure E.1	– Repairable and non-repairable areas for penetration damaged tyres	24
Figure G.1	– Repairable and non-repairable areas for diagonal ply car tyres	27
Figure I.1	– Repairable and non-repairable areas for diagonal ply tyres	29
Figure J.1	– Repairable and non-repairable areas for motorcycle and scooter tyres	31

Figure M.1 – Typical area damage for inner tubes 34

Figure M.2 – Typical split damage for inner tubes 34

List of tables

Table 1 – Load-capacity index (LI) 11

Table 2 – Speed symbols 13

Table B.1 – Repairable area of T as a percentage of the nominal section width of tyre 18

Table B.2 – Radial tyre injury limits: size of penetration damage (after preparation) 18

Table C.1 – Repairable areas T and $W^{(A)B)}$ 20

Table C.2 – Radial car tyre injury limits (measured at the base of injury after preparation) 20

Table D.1 – Commercial vehicle radial tyre injury limits (measured at base of injury after preparation) 22

Table E.1 – Repairable areas T and $W^{(A)B)}$ 24

Table E.2 – Agricultural vehicle radial tyre limits of repair (measured at base of injury after preparation) 25

Table F.1 – Repairable area of T in terms of percentage of nominal width of tyre $^{A)B)}$ 25

Table F.2 – Diagonal ply tyre injury limits: size of penetration damage (after preparation) 26

Table G.1 – Repairable areas T and $W^{(A)B)}$ 27

Table G.2 – Diagonal ply car tyre injury limits (measured at base of injury after preparation) 27

Table H.1 – Repairable areas T and $W^{(A)B)}$ 28

Table H.2 – Diagonal ply commercial vehicle tyre injury limits (measured at base of injury after preparation) 28

Table I.1 – Repairable areas T and $W^{(A)B)}$ 29

Table I.2 – Agricultural repair limits for diagonal ply tyres 29

Table J.1 – Motorcycle and scooter tyre injury limits (after preparation) 30

Table M.1 – Inner tube injury limits (after preparation) 33

Table N.1 – Calculated values for area T 36

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 36, an inside back cover and a back cover.

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.

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

NOTE 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.