



BSI Standards Publication

**AUTOMOBILE SERIES - Tyres and wheels  
- Part 2: Wheels and rims - Section  
7b: Code of practice for the selection  
and care of tyres and wheels for  
commercial vehicles**

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# Foreword

## Publishing information

This Section of BS AU 50 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2017. It was prepared by Technical Committee AUE/4, *Tyres and wheels for motor vehicles*. A list of organizations represented on this committee can be obtained on request to its secretary.

## Supersession

This Section of BS AU 50 supersedes BS AU 50-2.7a:1995, which is withdrawn.

## Information about this document

Tyre, wheel, rim and valve requirements are given in the following Parts of BS AU 50:

- a) Part 1: Tyres;
- b) Part 2: Wheels and rims;
- c) Part 3: Valves; and
- d) Part 4: Rim profiles and dimensions.

## Use of this document

As a code of practice, this Section of BS AU 50 takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this Section of BS AU 50 is expected to be able to justify any course of action that deviates from its recommendations.

It has been assumed in the preparation of this Section of BS AU 50 that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

## Presentational conventions

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

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

Where words have alternative spellings, the preferred spelling of The Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

## 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 Section of BS AU 50 gives recommendations on the steps to be taken in selecting replacement tyres and wheels for commercial vehicles and on the care of tyres, wheels and wheel fixings. It describes the principal types of wheels and fixings and the procedures to be carried out when fitting wheels.

The types of fixings and sizes described in this British Standard are normally used on heavy commercial vehicles, but if used on other types of vehicle then the recommendations given in this standard also apply.

*NOTE 1 Recommendations for the selection and care of wheels for passenger cars and light trailers are given in BS AU 50-2.8a.*

*NOTE 2 Attention is drawn to the Road Vehicles (Construction and Use) Regulations 1986 [1].*

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## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions 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 AU 50-2.3, *Tyres and wheels – Part 2: Wheels and rims – Section 3: Specification for road-wheel nuts, studs and bolts for commercial vehicles*

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## 3 Tyre and wheel selection

The initial choice of tyre and wheel combination and the arrangement at the particular wheel position should be made by the vehicle manufacturer in accordance with published performance and application data.

Where a vehicle's wheel and/or tyre specification is changed after manufacture, e.g. by body builders, operators or specialist converters, this should be done in consultation with both the vehicle and wheel manufacturer and having regard to the following factors:

- a) tyre/wheel load carrying capacity (design and legal restrictions);
- b) maximum speed of use;
- c) dimensional constraints, e.g. overall vehicle height, ground clearance, legal overall vehicle width, steering lock angle and suspension travel;
- d) compatibility with existing axles, hubs, brake assemblies and suspension;
- e) operation and service conditions; and
- f) application of wheel/tyre assembly, e.g. steered axle, drive axle, free rolling axle or twin wheel.

*NOTE Notes on tyre sidewall markings are given in [Annex A](#). Types of rims and wheels are described in more detail in [Annex B](#).*