

Tyres and wheels

Part 4: Rim profiles and dimensions —

Section 4: Agricultural tractor and machine rims —

Subsection 4.1a Specification for ply-rating marked series rims

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee AUE/4, Tyres and wheels for road vehicles, upon which the following bodies were represented:

- Agricultural Engineers' Association
- Automobile Association
- British Industrial Truck Association
- British Pressure Gauge Manufacturers' Association
- British Rubber Manufacturers' Association
- Confederation of Passenger Transport UK
- Department of Transport
- Freight Transport Association
- Institute of Road Transport Engineers (Inc)
- Motor Cycle Industry's Association of Great Britain Ltd.
- Motor Industry Research Association
- National Tyre Distributors' Association
- Retread Manufacturers' Association
- Road Haulage Association Ltd.
- Society of Motor Manufacturers and Traders Ltd.

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National foreword

This Subsection of this Part of BS AU 50 has been prepared by Technical Committee AUE/4 and is identical to ISO 4251-3:1994, *Tyres (ply-rating marked series) and rims for agricultural tractors and machines — Part 3: Rims*, published by the International Organization for Standardization (ISO). It supersedes BS AU 50-4.1:1991 which is withdrawn. The corresponding tyre details are dealt with in Part 1 (Subsection 4.1a). Other Parts of the Standard are:

- *Part 1: Tyres;*
- *Part 2: Wheels and rims;*
- *Part 3: Valves.*

Part 4 of BS AU 50 (rim profiles and dimensions) was introduced to assist cross-referencing between tyre specifications and the corresponding rim specifications. Subsections of Part 4 successively superseded the information contained in BS AU 50-2.1b:1980, which is consequently withdrawn in 1995.

Cross-references

International Standard	Corresponding British Standard
	BS AU 50 <i>Tyres and wheels</i> Part 4 <i>Rim profiles and dimensions</i> Section 2 <i>Commercial vehicle rims</i>
ISO 4209-2:1993	Subsection 2.1 <i>Specification for metric series rims</i> (Identical)

The Technical Committee has reviewed the provisions of ISO 4000-2:1987¹⁾, to which normative reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

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.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 14, 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⁾ ISO 4000-2:1987 is superseded by ISO 4000-2:1994 which is identical with BS AU 50-4.1.1:1992

1 Scope

This part of ISO 4251 sets out rim dimensions for tyres of the ply rating marked series for agricultural tractors and machines.

Tyre designation and dimensions, load ratings and tyre classification and nomenclature are given in ISO 4251-1, ISO 4251-2 and ISO 4251-4 respectively. The rims specified in this part of ISO 4251 may also be used for the tyres specified in ISO 7867-1^[2] and ISO 8664^[3].

All dimensions in this part of ISO 4251 are given in millimetres.

NOTE 1 Terms used are in accordance with ISO 3911:1977^[1].

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 4251. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements, based on this part of ISO 4251 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4000-2:1987, *Passenger car tyres and rims — Part 2: Rims*.

ISO 4209-2:1993, *Truck and bus tyres and rims (metric series) — Part 2: Rims*.

3 Rim diameters and circumferences

Nominal rim diameter codes D_R are as shown in Table 1 related to the specified rim diameter given in Figure 1.

For rim diameter measurements, see Annex A.

A tolerance of $\pm 1,2$ mm on the rim circumference is permitted.

4 Rim contours and valve holes

4.1 Drop-centre W and DW rims

Dimensions and tolerances of drop-centre W and DW rims shall be as given in Table 2 and shown in Figure 2.

The valve hole shall have a diameter of $15,7 \text{ mm} + {}^0,4 \text{ mm}$ and may be on either side of the rim.

The nominal valve seat angle is $30^\circ \pm 5^\circ$. To provide for valve-to-vehicle clearance, optional valve seat angles of 45° maximum are permissible. For any angle selected for a given rim, the tolerance is $\pm 5^\circ$.

4.2 Drop-centre DH rims

Dimensions and tolerances of drop-centre DH rims shall be as given in Table 3 and shown in Figure 3.

The location of valve holes is shown in Figure 4.

Table 1 — Rim diameters

Nominal rim diameter code D_R	Specified rim diameter ^a D
8	202,4
9	227,8
10	253,2
12	304
13	329,4
14	354,8
15	380,2
16	405,6
17	436,6
18	462
19	487,4
20	512,8
24	614,4
26	665,2
28	716
30	766,8
32	817,6
34	868,4
36	919,2
38	970
40	1 020,8
42	1 071,6
44	1 122,4
46	1 173,2
48	1 224

^a The specified rim diameters, D , in millimetres, are derived from the nominal rim diameter codes, D_R , as follows:

a) $D_R \leq 16$, $D = 25,4(D_R - 0,031\ 25)$

b) $D_R > 16$, $D = 25,4(D_R + 0,187\ 5)$

The values are rounded to 0,1 mm

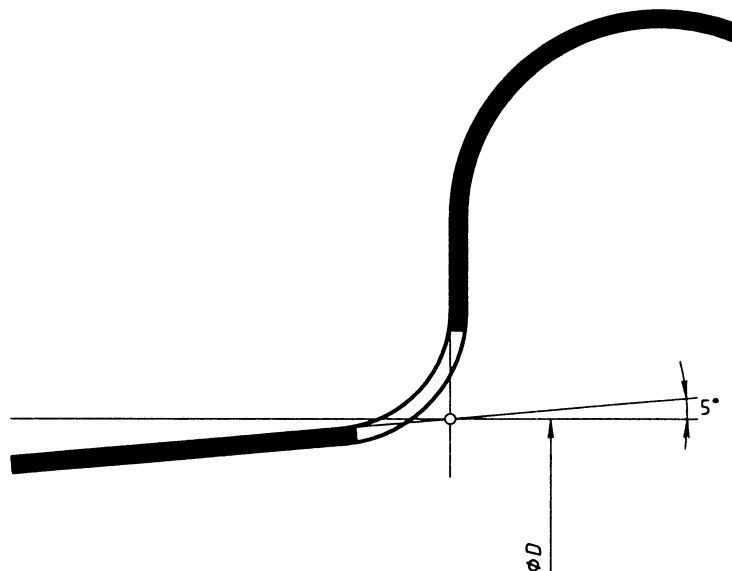
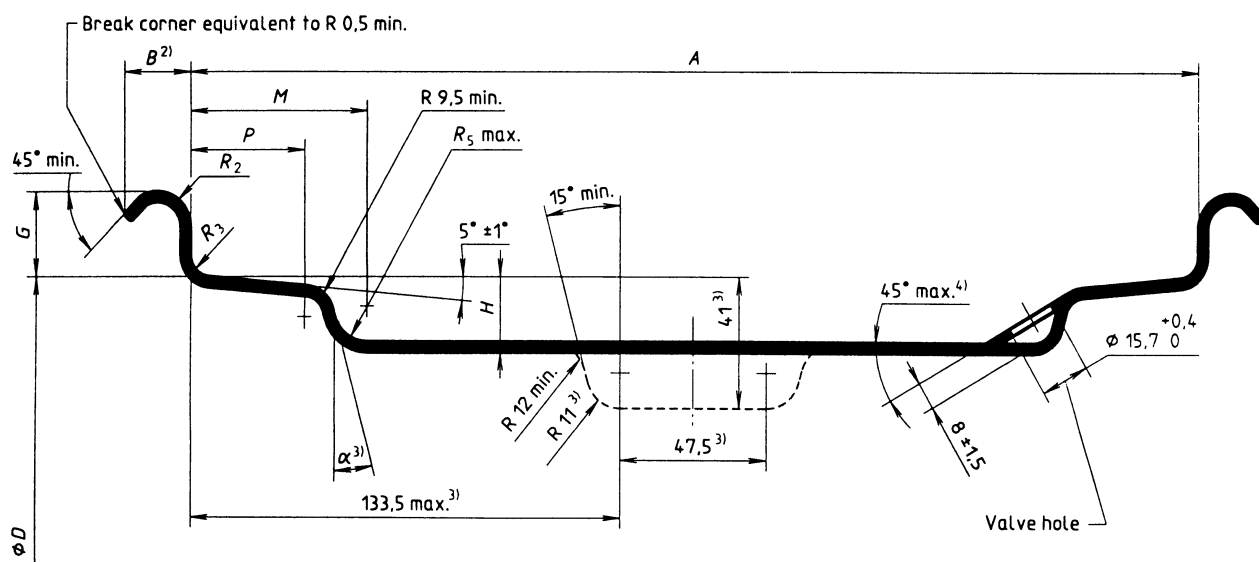


Figure 1 — Specified rim diameter

Tyre-mounting side ¹⁾

- 1) The tyre-mounting side is that side of the rim for which the dimension M is applied.
- 2) Flange width includes edge radius. The portion of flange beyond the minimum width shall be lower than the highest point of the flange.
- 3) These dimensions comprise the minimum well envelope for tyre-mounting purposes.
- 4) For any angle selected for a given rim, the tolerance is $\pm 5^\circ$.

Figure 2 — Contour of W and DW rims