

Tyres (ply rating marked series) and rims for agricultural tractors and machines —

Part 1: Tyre designation and dimensions, and approved rim contours

ICS 83.160.30

National foreword

This British Standard is the UK implementation of ISO 4251-1:2005+A1:2012. It supersedes BS ISO 4251-1:2005, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to 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.

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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Tyres (ply rating marked series) and rims for agricultural tractors and machines —

Part 1: Tyre designation and dimensions, and approved rim contours

*Pneumatiques (série à marquage «équivalent nappes») et jantes pour
tracteurs et machines agricoles —*

*Partie 1: Désignation et cotes des pneumatiques et profils de jantes
approuvés*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 4251-1 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 5, *Agricultural tyres and rims*.

This sixth edition cancels and replaces the fifth edition (ISO 4251-1:1998), which has been technically revised.

ISO 4251 consists of the following parts, under the general title *Tyres (ply rating marked series) and rims for agricultural tractors and machines*:

- *Part 1: Tyre designation and dimensions, and approved rim contours*
- *Part 2: Tyre load ratings*
- *Part 3: Rims*
- *Part 4: Tyre classification and nomenclature*
- *Part 5: Logging and forestry service tyres*

Tyres (ply rating marked series) and rims for agricultural tractors and machines —

Part 1: Tyre designation and dimensions, and approved rim contours

1 Scope

This part of ISO 4251 establishes the designation in use and the dimensions of the ply rating marked series of tyres for agricultural tractors and machines.

Tyre load ratings, rim dimensions, and tyre classification and nomenclature are given in ISO 4251-2, ISO 4251-3 and ISO 4251-4 respectively.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 4223-1, *Definitions of some terms used in the tyre industry — Part 1: Pneumatic tyres*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4223-1 apply.

4 Marking

The marking of the ply rating marked series of tyres consists of the designation of tyre size and load rating, and any additional information. See 4.1 to 4.4.

4.1 Tyre size designation

The present size marking for the identification of tyres consists of the nominal tyre width code and the nominal rim diameter code.

EXAMPLE 1

Tyre 13.6 – 28

Tyre 6.50 – 16

For tyres of radial construction, the letter R replaces the dash.

EXAMPLE 2

Tyre 8.3 R 44

For low section height tyres, the letter L is added to the nominal tyre width code.

EXAMPLE 3

Tyre 9.5L – 15

For low section height tractor steering wheel tyres of diagonal construction, an optional marking may be used in the following manner:

Nominal tyre width code/nominal aspect ratio – nominal rim diameter

EXAMPLE 4

Tyre 9.5/85 – 15

4.2 Load rating

The present marking of load rating comprises the ply rating.

EXAMPLE

Tyre 13.6 – 28 8 PR

4.3 Categories of use

4.3.1 Agricultural drive wheels — Tractor tyres

The classification code R, as specified in ISO 4251-4, may be optionally marked on the tyre sidewall.

4.3.2 Agricultural steering wheels — Tractor tyres

The classification code F, as specified in ISO 4251-4, may be optionally marked on the tyre sidewall. In addition, the letters “front” or “SL” may be marked after the nominal rim diameter code on the tyre sidewall.

4.3.3 Agricultural implement tyres

 The classification code I, as specified in ISO 4251-4, shall be marked on the tyre sidewall, along with an optional marking “IMP” or “IMPLEMENT” or SL suffix.

EXAMPLE

4.00-12	IMP
4.00-12	IMPLEMENT
4.00-12SL	IMPLEMENT 

4.4 Additional information

Tubeless tyres may be marked with the word “TUBELESS”.

Additionally, classification code markings indicating tyre classifications may be used as described in ISO 4251-4, but they are not part of the type size designation of the tyre.

4.5 Tyre maximum pressure bead seating pictogram (optional)

The inscription “XXX kPa MAX” inside the pictogram (Figure 1) indicates the cold inflation pressure that shall not be exceeded within the bead seating during tyre mounting. The value of inflation pressure is determined by the tyre manufacturer.

The pictogram shall be marked on both sidewalls of the tyre. 

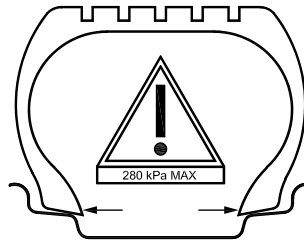


Figure 1 — Pictogram of maximum inflation pressure — Example

5 Dimensions and tolerances

5.1 Agricultural drive wheels — Tractor tyres

Tyre size designations, measurement rims, design dimensions of new tyres, and maximum tyre dimensions in service are given in

- a) Table 1 for tyres of diagonal construction with normal section height;
- b) Table 2 for tyres of diagonal construction with low section height;
- c) Table 3 for tyres of diagonal construction for special cultivation work;
- d) Table 4 for tyres of radial construction for special cultivation work.

5.2 Agricultural steering wheels — Tractor tyres

Tyre size designations, measurement rims, design dimensions of new tyres, and maximum tyre dimensions in service are given in

- a) Table 5 for tyres of diagonal construction with normal section height;
- b) Table 6 for tyres of diagonal construction with low section height.

5.3 Agricultural implement tyres

Tyre size designations, measurement rims, design dimensions of new tyres, and maximum tyre dimensions in service are given in

- a) Table 8 for tyres of diagonal construction with normal section height;
- b) Table 9 for tyres of diagonal construction with low section height.

6 Radius index

Radius indices are parameters which are used exclusively for the calculation of forward ground speed during homologation procedures (see for further information ISO 3965).

Values are given in Table 7 for tyres of diagonal and radial constructions with normal section height and for agricultural tractor drive wheel tyres of diagonal construction with low section height.

They apply to tyres inflated to the recommended inflation pressures given in ISO 4251-2 and having a load per tyre corresponding to 50 % of the maximum values at 30 km/h.

7 Tyre and rim coordination

Approved rim contours are given in

- a) Table 10 for agricultural drive wheel tractor tyres;