

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

Part 2: Tyre load ratings

ICS 83.160.30

National foreword

This British Standard is the UK implementation of ISO 4251-2:2005+A1:2011. It supersedes BS ISO 4251-2:2005 which is withdrawn.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 amendment. For example, text altered by ISO amendment 1 is indicated in the text 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 2: Tyre load ratings

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

Partie 2: Capacités de charge des pneumatiques



Reference number
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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 4251-2 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 4251-2:1998), 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 2: Tyre load ratings

1 Scope

This part of ISO 4251 specifies load ratings for the ply rating marked series of tyres for agricultural tractors and machines.

Tyre designation and dimensions, and approved rim contours, rim dimensions, and tyre classification and nomenclature are given in ISO 4251-1, 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 part of ISO 4251, the terms and definitions given in ISO 4223-1 and the following apply.

3.1

load/inflation pressure relationship

loads as given in the tables which are maximum values and are valid for the reference inflation pressures indicated.

3.2

cyclic loading application

gradual increase of payload to maximum allowable load with unloading before off-field transport.

4 Tyre loads

4.1 Agricultural drive wheels — Tractor tyres

Basic tyre loads for tyres of diagonal construction, used as singles at a maximum speed of 30 km/h, and reference inflation pressures are given in Table 1.

On combine harvesters in cyclic loading service, except hillside combines, a load of up to 170 % of the basic tyre loads given in Table 1 is permitted for speeds up to 10 km/h with an inflation pressure increase of approximately 30 % (consult tyre manufacturers). This load increase shall include all possible field and user modifications that increase vehicle mass. The wheel and rim manufacturers shall be consulted concerning the strength of the wheels.

Tyre loads at different speeds (load/speed relationship) are given in Table 2 for tyres of diagonal construction with normal section height and tyres of diagonal construction with low section height.

Loads for tyres of diagonal and radial constructions for special cultivation work and corresponding reference inflation pressures are given in

- a) Table 3 for a maximum speed of 30 km/h;
- b) Table 4 for cultivation work at a maximum speed of 10 km/h.

A1 For the tyre load and inflation pressures of combine harvesters in transport service, the tyre manufacturer shall be consulted. **A1**

4.2 Agricultural steering wheels — Tractor tyres

Basic tyre loads at a maximum speed of 30 km/h, and their corresponding reference inflation pressures, are given in Table 5 for tyres of diagonal construction.

Tyre loads at different speeds (load/speed relationship) are given in Table 6 for tyres of diagonal construction with normal and low section heights.

On combine harvesters in cyclic loading application, except hillside combines, a load of up to 150 % of the basic tyre loads given in Table 5 is permitted for speeds up to 10 km/h. This load increase shall include all possible field and user modifications that increase vehicle mass. The wheel and rim manufacturers shall be consulted concerning the strength of the wheel.

4.3 Agricultural implement tyres

Basic tyre loads at a maximum speed of 30 km/h and their corresponding reference inflation pressures are given in Table 7 for tyres of diagonal construction.