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Second edition
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Industrial tyres and rims —

Part 2: Pneumatic tyres (metric series) on 5 degrees tapered or flat base rims — Load ratings

Pneumatiques et Jantes industriels pour matériel de manutention —

Partie 2: Pneumatiques (série millimétrique) montés sur jantes coniques à 5 degrés ou à base plate — Capacités de charge

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 7, *Industrial tyres and rims.*

This second edition cancels and replaces the first edition (ISO 3739-2:1992), which has been technically revised.

The main changes compared to the previous edition are as follows:

— added rim diameter codes larger than 15.

A list of all parts in the ISO 3739 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Industrial tyres and rims —

Part 2: Pneumatic tyres (metric series) on 5 degrees tapered or flat base rims — Load ratings

1 Scope

This document specifies the load ratings of the metric series of pneumatic tyres primarily intended for industrial vehicles for use on prepared surfaces.

ISO 3739-1 deals with designation, dimensions and marking; ISO 3739-3 deals with rim contours for these tyres.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3739-1, *Industrial tyres and rims – Part 1: Pneumatic tyres (metric series) on 5 degrees tapered or flat base rims – Designation, dimensions and marking*

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

ISO 5053-1, *Industrial trucks — Vocabulary — Part 1: Types of industrial trucks*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4223-1 and ISO 5053-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Reference load-carrying capacity

The 100 % reference load-carrying capacity is the load corresponding to the load index marked on the tyre. The correlation between load index and tyre load-carrying capacity shall conform to ISO 3739-1.

Reference load-carrying capacities of several versions of the same tyre size (same dimensional and constructional characteristics) shall be based on reference inflation pressures of 550 kPa, 675 kPa, 825 kPa and 1 000 kPa.

5 Load ratings

5.1 General

The permissible loads for industrial tyres are based on their application according to vehicle type and speed capability and shall be as given in Table 1, Table 2 and Table 3 for tyres up to 20 rim diameter code and Table 4 for tyres from 24 rim diameter code up to 33 rim diameter code. Permissible loads are given as a percentage of the reference load.

Table 1 — Tyre load capacity ratings for A5 tyres up to 20 rim diameter code on counterbalanced lift trucks

Speed capability of counterbalanced lift truck:			
up to 25 km/h		up to 35 km/h	
Load wheels	**Steering wheels**	**Load wheels**	**Steering wheels**
130 %	100 %	125 %	92,5 %

Table 2 — Tyre load capacity ratings for A5 tyres up to 20 rim diameter code on side loaders

Speed capability of side loader:		
static	up to 25 km/h	up to 35 km/h
151 %	100 %	92,5 %

Table 3 — Tyre load capacity ratings for A5 tyres up to 20 rim diameter code on other vehicles

Speed capability of other vehicles:				
static	up to 10 km/h	up to 25 km/h	up to 40 km/h	up to 50 km/h
151 %	130 %	100 %	89 %	84 %

Table 4 — Tyre load capacity ratings for A5 tyres from 24 rim diameter code up to 33 rim diameter code

Application	**Maximum speed**[a] km/h	**Maximum tyre load capacity** (% of the reference load)
Industrial cyclic	10	130
	25	100
All axles	35	92,5
CBLT load wheel	10	130
	25	130
	35	125
Creep[b]	1	130
Static[b]	0	150

[a] Maximum speed is the maximum speed of the vehicle.

[b] No interpolation authorized between static and creep.

5.2 Reference load

For 100 % reference load, see Clause 4.