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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 pour matériel de manutention —

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

ICS: 83.160.99

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Foreword

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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).

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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.

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 part of ISO 3739 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*

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3 Terms and definitions

<https://standards.iteh.ai/catalog/standards/sist/e1b7f3f3-a6f7-4bb4-b0b2-5a3ab7db41a6/iso-dis-3739-2>

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

4 Reference load-carrying capacity

The 100% reference load-carrying capacity is the load corresponding to the load index marked on the tyre. Correlation between load index and tyre load-carrying capacity shall conform to ISO 3739-1, Table 2.

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.

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 10 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 ^[1] 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 ^[2]	1	130
Static ^[2]	0	150

[1] : Maximum speed is the maximum speed of the vehicle.
 [2] : No interpolation authorized between Static and Creep.

5.2 Reference load

For 100% reference load, see [Clause 4](#).

5.3 Calculated load

Calculated loads shall be rounded to nearest 5 kg above

5.4 Dual tyre load

When fitted in dual formation, the load for the two tyres is twice that for a single tyre.

6 Inflation pressures

Operating cold inflation pressures should be agreed between tyre and vehicle manufacturers taking into account not only the tyre load-carrying capacity, but also the operating conditions, the maximum speed, the position of the tyre on the vehicle, service conditions and the construction and characteristics of the vehicle.

Cold inflation pressure means the pressure taken with the tyre at ambient temperature; it does not include any pressure build-up due to tyre usage.

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Bibliography

- [1] ISO 4223-1, *Definitions of some terms used in the tyre industry — Part 1: Pneumatic tyres*
- [2] ISO 5053-1, *Industrial trucks — Vocabulary — Part 1: Types of industrial trucks*

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