

# INTERNATIONAL STANDARD

**ISO**  
**3739-2**

First edition  
1992-05-01

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## **Industrial tyres and rims —**

### **Part 2:**

Pneumatic tyres (metric series) on 5° 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° ou à base plate — Capacités de charge*



Reference number  
ISO 3739-2:1992(E)

## 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.

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.

International Standard ISO 3739-2 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Sub-Committee SC 7, *Industrial tyres and rims*.

ISO 3739 consists of the following parts, under the general title *Industrial tyres and rims*:

- *Part 1: Pneumatic tyres (metric series) on 5 degrees tapered or flat base rims — Designation, dimensions and marking*
- *Part 2: Pneumatic tyres (metric series) on 5 degrees tapered or flat base rims — Load ratings*
- *Part 3: Rims*

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International Organization for Standardization  
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

## Industrial tyres and rims —

### Part 2:

### Pneumatic tyres (metric series) on 5° 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 standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 3739. 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 3739 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 4223-1:1989, *Definitions of some terms used in the tyre industry — Part 1: Pneumatic tyres.*

ISO 5053:1987, *Powered industrial trucks — Terminology.*

#### 3 Definitions

For definitions of terms relating to tyres, see ISO 4223-1; for definitions of terms relating to industrial trucks and machines, see ISO 5053.

#### 4 Reference load-carrying capacity

**4.1** The 100 % reference load-carrying capacity is the load corresponding to the load index marked on the tyre.

NOTE 1 Correlation between load index and tyre load-carrying capacity is specified in ISO 3739-1:1992, table 2.

**4.2** 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** The permissible loads for industrial tyres are based on their application according to vehicle type and speed capability and shall be as given in tables 1 to 3.

NOTE 2 The data given in tables 1 to 3 may be reconsidered in the light of additional field experience.

**5.2** For 100 % reference, see clause 4.

**5.3** Calculated loads shall be rounded to nearest 5 kg above.

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

**Table 1 — Tyre load capacity ratings for A5 tyres 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 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 on other vehicles**

static	Speed capability of other vehicles:			
	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 %

## 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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