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Part 3: Rims

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Designation and marking **1**
5 Rim profiles **1**
Annex A (informative) **Size range of existing rims** **4**
Bibliography **9**

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 third edition cancels and replaces the second edition (ISO 3739-3:2008), which has been technically revised.

The main change compared to the previous edition is as follows: rim diameter codes larger than 15 have been added.

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.

Introduction

ISO 3739-1 gives the designation, dimensions and marking, and ISO 3739-2 gives the load ratings, of pneumatic tyres (metric series). ISO 10499-1 covers the designation, dimension and marking of rubber solid tyres (metric series) for pneumatic tyre rims.

Rim dimensions are specified for size and contour only. The tyre and wheel/rim manufacturers are consulted for confirmation of the suitability of the tyre/rim combinations, particularly with regard to the rim profile and wheel strength.

Industrial tyres and rims —

Part 3:
Rims

1 Scope

This document specifies the main requirements, including size designation and marking, of 5-degree tapered and flat base rims primarily intended for industrial vehicles for use on prepared surfaces.

2 Normative references

The following document is 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 3911, *Wheels and rims for pneumatic tyres — Vocabulary, designation and marking*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3911 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 https://www.electropedia.org/

4 Designation and marking

Rim designation and marking shall be in accordance with ISO 3911.

5 Rim profiles

As far as possible, rims shown in Table 1 and Table 2 should be used for the metric series of tyres; only if absolutely necessary should new profiles be considered.

All rim profiles shall be independent from the rim diameter, i.e. no change of profile shall be related to the diameter.

The flange widths include the edge radius. The portion of the flange beyond the minimum width shall be equal to, or less than, the highest point of the flange.

The rims shall have a 5-degree tapered bead seat.

The specified rim diameter, *D*, shall be as given in Table 3.

Table 1 — Index of one-piece and multi-piece rims

Rim width code	Existing rims[a]	Rim profile details are indicated in	
		Figures	Tables
2.50	4 - 2.50 C	A.1	A.1
	4 x 2.50 C	A.2	A.2
	8 - 2.50 C	A.1	A.1
	8 x 2.50 C	A.2	A.2
3.00	8 - 3.00 D	A.3	A.3
3.25	4 - 3.25 I 6 - 3.25 I 8 - 3.25 I	A.1	A.1
4.00	9 - 4.00 E	A.1, A.3	A.1, A.3
	9 x 4.00 E	A.2	A.2
5.0	10 - 5.00 F	A.1, A.3	A.1, A.3
	10 x 5.00 F	A.2	A.2
	12 IL - 5.00 S	A.1, A.3	A.1, A.3
	15 TB - 5.0[b]	A.4	A.4
6.0	9 - 6.00 E	A.3	A.3
6.5	10 - 6.50 F	A.1, A.3	A.1, A.3
	15 - B 6.5 15 - 6.5[b] 15 TB - 6.5	A.4	A.4
7.0	20 - 7.0	A.4	A.4
7.5	20 - 7.5	A.4	A.4
8.0	12 - 8.00 G	A.3	A.3
	15 - B 8.0 15 - 8.0 15 TB - 8.0	A.4	A.4
	20 - 8.0	A.4	A.4
8.5	20 - 8.5	A.4	A.4
	24 - 8.5		
9.0	24 - 9.0	A.4	A.4
10.0	24 - 10.0	A.4	A.4
11.25	25 - 11.25 / 2.0	A.5, A.6	A.5
	25 - 11.25 / 2.0 IF	A.6	A.6
13.0	25 - 13.0 / 2.0	A.5, A.6	A.5
	25 - 13.0 / 2.5	A.5, A.6	A.5
	25 - 13.0 / 2.5 IF	A.6	A.6
	33 - 13.0 / 2.5	A.5, A.6	A.5
	33 - 13.0 / 2.5 IF	A.5	A.6
15.0	25 - 15.0 / 2.5	A.5, A.6	A.5

[a] The symbol "x" indicates a one-piece rim; the symbol "-" indicates a multi-piece rim.

[b] Rims with identical designation but different dimensions exist.

Table 2 — Index of drop centre rims

Rim width code	Reference standard	Nominal rim diameter code	
		8	9
2.50 C	ISO 18804	X	
4.00 E	ISO 18804		X

Table 3 — Specified rim diameters

Nominal rim diameter code	Specified rim diameter *D* mm	Tolerance[a] *D* mm
4	100,8	±0,4
6	151,6	
8	202,4	
9	227,8	
10	253,2	
12	304,0	
12 IL	308,8	
(B) 15	385,8	
15 TB	387,4	
20	514,4	
24	616,0	
25	635,0	+0,4 / −0,8
33	838,2	

[a] The tolerance is for tyre design purposes only. The rim measurement is made by a circumference-measuring tape related to a mandrel.

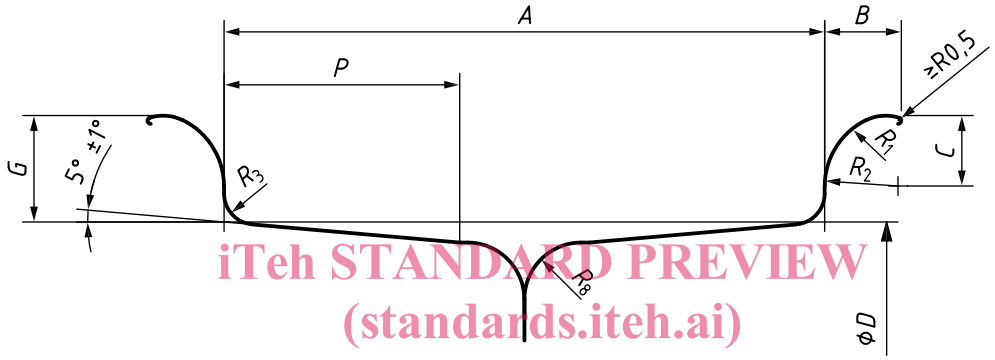
Annex A
(informative)

Size range of existing rims

This annex gives detailed characteristics of existing rim profiles for which an index is provided in Table 1.

Tables A.1, A.2, A.3, A.4, A.5 and A.6 give existing combinations of dimension and nominal rim diameter code corresponding to Figures A.1, A.2, A.3, A.4, A.5 and A.6, respectively. The specified rim diameter, *D*, may be found in Table 3.

Dimensions in millimetres



Key

A	specified rim width
B	flange width
C	flange radius location
D	specified rim diameter
G	flange height
P	bead seat width
R_1	flange compound radius
R_2	flange radius
R_3	bead seat radius
R_8	form radius

Figure A.1 — 5-degree tapered divided rims