
Castors and wheels - Castors and wheels for applications up to 1,1 m/s (4 km/h)

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Räder und Rollen - Transportgeräterollen bis zu einer Geschwindigkeit von 1,1 m/s (4 km/h)

Roues et roulettes - Roues et roulettes pour des applications jusqu'à 1,1 m/s (4 km/h)

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ICS:

21.180	Ohišja, okrovi, drugi strojni deli	Housings, enclosures, other machine parts
53.060	Industrijski tovornjaki	Industrial trucks

SIST EN 12532:2000**en**

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EUROPEAN STANDARD

EN 12532

NORME EUROPÉENNE

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Descriptors: wheels, castors, handling equipment, characteristics, product requirements, dimensions, tests, conformity tests, marking

English version

Castors and wheels - Castors and wheels for applications up to 1,1 m/s (4km/h)

Roues et roulettes - Roues et roulettes pour des applications jusqu'à 1,1 m/s (4 km/h)

Räder und Rollen - Transportgeräterollen bis zu einer Geschwindigkeit von 1,1 m/s (4km/h)

This European Standard was approved by CEN on 30 August 1998.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 324 "Castors and wheels", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 1999, and conflicting national standards shall be withdrawn at the latest by March 1999

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the technical requirements, the appropriate dimensions and the requirements for testing.

This European Standard applies to castors and wheels (which may include accessories) for manually propelled or power towed industrial applications up to 1,1 m/s (4 km/h). This European Standard does not apply to castors and wheels for furniture, swivel chairs, institutional, hospital beds and driven applications.

2 Normative references

<https://standards.iteh.ai/catalog/standards/sist/20f3489b-663d-42c9-8721-4289b3c078/sist-en-12532-2000>

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply only to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 12526 : 1998	Castors and wheels - Vocabulary, recommended symbols and multilingual dictionary
EN 12527: 1998	Castors and wheels - Test procedures and apparatus
ISO 7619	Rubber - Determination of indentation hardness by means of pocket hardness meters

3 Definitions

For the purpose of this European Standard, definitions and recommended symbols of EN 12526 : 1998 apply.

4 Dimensions and classification

The characteristics of a castor are:

- fixing system (4.1)
- offset (4.2)
- wheel (4.3)
- load capacity (4.4)

4.1 Fixing system

The fixing system includes top plate, solid stem and single bolt fixing.

4.1.1 Top plate

Top plates are identified by classification and include triangular with three fixing holes and rectangular top plates with four fixing holes.

4.1.1.1 Triangular top plate with three fixing holes

The design of the outer profile is left to the manufacturer, provided that it is inscribed in a square of maximum size $A \times A$ as in table 1 and figure 1.

The fixing holes are located at the corners of a triangle inscribed in the outer profile. The holes may be oblong and form slots, provided the width of the slot is suitable for a bolt of diameter (G_1) as in table 1. Table 1 lists the standardised dimensions of the different classes of top plates, showing for each the corresponding wheel diameter (D) where it is applicable.

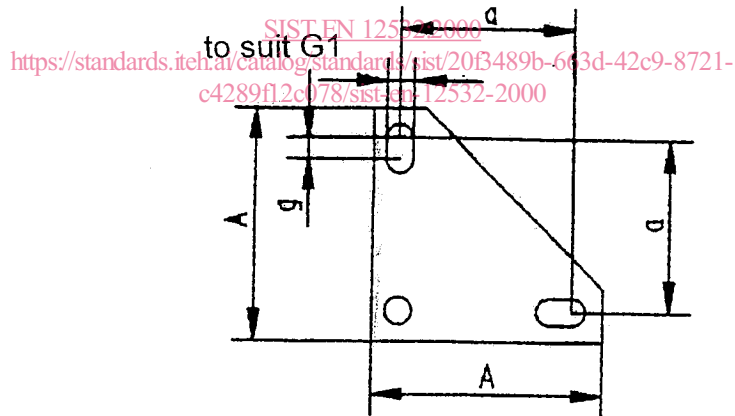


Figure 1: Triangular top plate

Table 1: Triangular top plate

dimensions in millimetres

Class	Maximum plate dimension (A x A)	Bolt hole spacing (a x a)	Bolt diameter (G ₁)	Minimum distance of slotted hole centres (g)	Corresponding wheel diameter (D)
T41	75 x 75	55	6	5	50 63 75/80 100
T42	115x115	80	8	11	50 63 75/80 100 125
T43	145x145	105	8	11	63 75/80 100 125 150/160 200
T44	145x145	105	10	9	63 75/80 100 125 150/160 200
T45	175x175	140	10	17	125 150/160 200 250 300
T46	175x175	140	12	14	125 150/160 200 250 300

4.1.1.2 Rectangular top plate with four fixing holes

The design of the outer profile is left to the manufacturer, provided that it is inscribed in a rectangle of maximum size A x B as in table 2 and figure 2.

The fixing holes are located at the corners of a rectangle inscribed in the outer profile. The holes may be oblong and form slots, provided the width of the slot is suitable for bolts of diameter (G₁) as in table 2.

Table 2 lists the standardised dimensions of the different classes of top plates, showing for each the corresponding wheel diameter (D) where it is applicable.

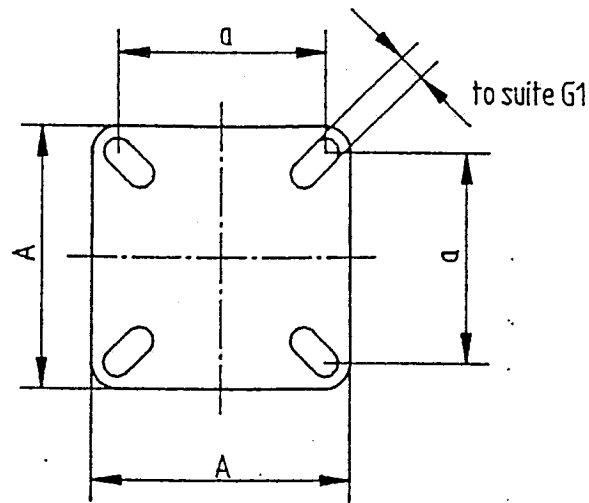


Figure 2: Rectangular top plate

Table 2: Rectangular top plate

Class	Maximum plate dimensions (A x B)	Bolt hole spacing (a x b)	Bolt diameter (G ₁)	Corresponding wheel diameter
				(D)
R41	75x60	55x40	6	50 63
R42	115x85	80x60	8	50 63 75/80 100 125 150/160
R43	145x110	105x80	10 or 12	75/80 100 125 150/160 200 250
R44	175x140	140x105	10 or 12	125 150/160 200 250 300
R45	200x160	160x120	12 or 14	200 250 300 350 400
R46	255x205	210x160	14 or 16	200 250 300 350 400 500

4.1.2 Solid stem

Table 3 specifies the solid stem diameters corresponding to the wheel diameter. The length of the solid stem must be at least 1,5 times its diameter.

In those cases where the solid stem is supplied with a cross hole for fixing to a tubular structure, the axis of such hole shall be at a $19 \text{ mm} \pm 0,25 \text{ mm}$ (distance measured from the collar of the stem) threaded to M8 (as in figure 3a) or bored to $8 \text{ mm} + 0,3 \text{ mm}$ (as in figure 3b).

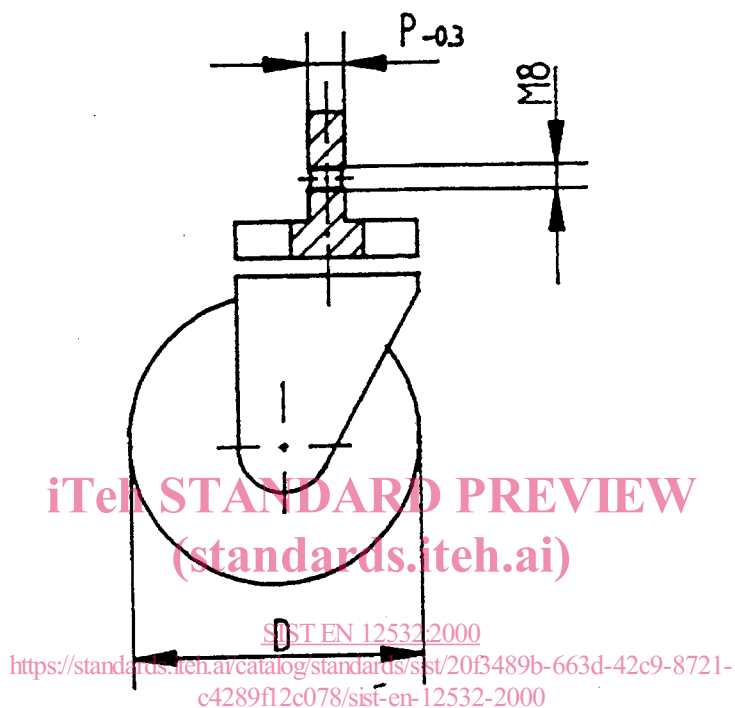


Figure 3a: Solid stem castor with threaded fixing hole

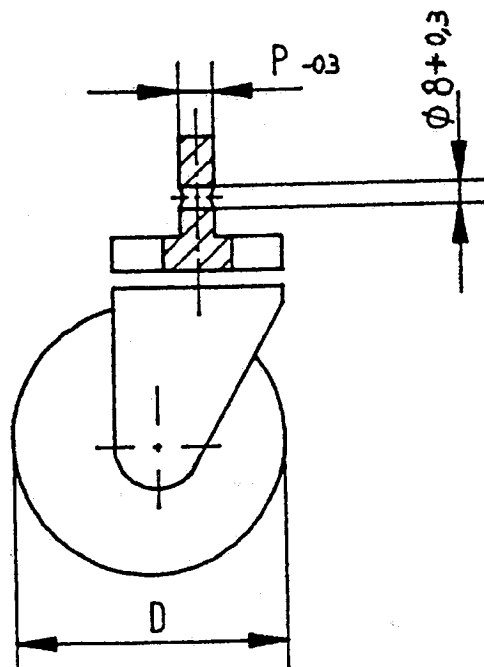


Figure 3b: Solid stem castor with plain fixing hole

Table 3: Solid stem diameter

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dimensions in millimetre

Wheel diameter (D)	Stem dimensions	
	Diameter (P)	Tolerance
50	20 22	0 / - 0,3
63	20 22	
75/80	20 22	
100	20 22	
125	22 27	
150/160	22 27	
200	27	
250	27	
300	27	

4.1.3 Single bolt fixing

Table 4 specifies the bolt diameters (G_2) for single bolt fixing corresponding to the wheel diameter (D).

Table 4: Bolt diameters for single bolt fixing

dimensions in millimetres

Wheel diameter (D)	Bolt diameter (G ₂)
50	8
	10
63	8
	10
75/80	10
	12
100	10
	12
125	10
	12
150/160	12
	16
	20
200	12
	16
	20
250	16
	20
300	20

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4.2 Offset

Table 5 specifies the minimum and maximum offset values (F) for the swivel castors, corresponding to the wheel diameter (D), as in figure 4.

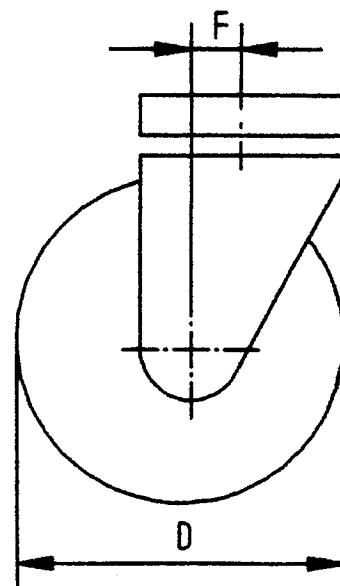


Figure 4: Offset