
INTERNATIONAL STANDARD



2184

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**Industrial castors — Dimensions of top-plates — Part I :
Oblong top-plates with 4 bolt holes**

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Descriptors : castors, fittings, fixing plates, industrial trucks.

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2184 was drawn up by Technical Committee ISO/TC 110, *Industrial trucks*.

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It was approved in June 1971 by the Member Bodies of the following countries :

Australia	Ireland	Sweden
Austria	Israel	Switzerland
Belgium	Korea, Rep. of	Thailand
Bulgaria	Netherlands	Turkey
Czechoslovakia	New Zealand	United Kingdom
Egypt, Arab Rep. of	Poland	U.S.S.R.
France	Romania	Yugoslavia
Greece	South Africa, Rep. of	
India	Spain	

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The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Germany
U.S.A.

Industrial castors – Dimensions of top-plates – Part I : Oblong top-plates with 4 bolt holes

1 SCOPE

This International Standard specifies the main dimensions of the top-plates for industrial castors, having 4 bolt holes placed at the corners of a rectangle and with their outer profile inside a rectangle co-axial to the preceding one ¹⁾.

2 FIELD OF APPLICATION

This International Standard applies to top-plates defined in 4.2.2 of ISO/R 2163, and used for fixed brackets and castors, defined in 4.1.1 and 4.1.2 of that document.

3 REFERENCES

ISO/R 273/II, *Clearance holes for metric bolts - 42 up to and including 150 mm thread diameter.*

ISO/R 2163, *Industrial trucks – Wheels and castors – Vocabulary.*

4 CLASSIFICATION

The table of specifications on the next page comprises six classes of top-plates for which it gives the maximum dimensions A and B of the envelope rectangle, the bolt hole spacings a and b and the bolt hole diameters D as well as the diameters and hub lengths for the standardized wheels with corresponding top-plate classes.

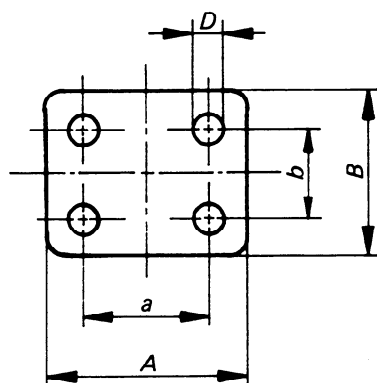


FIGURE 1 – Top-plate with round bolt holes

5 SPECIFICATIONS

5.1 Outer profile

The design of the outer profile of the top-plates is left to the manufacturer, but is to enter the rectangle of maximum sizes A and B of the table.

5.2 Hole spacings

The dimensions of the bolt hole spacings have been chosen so as to be in a ratio close to 4/3.

Examples : $\frac{80}{60} = \frac{4}{3}$ $\frac{105}{80} \approx \frac{4}{3}$

5.3 Bolt holes

The diameters D of the bolt holes have been selected from the medium series of ISO/R 273/II²⁾. The bolt holes may be oblong and have any dimensions in length, but they are to have dimensions in width corresponding with the diameters presented in the table.

Figure 2 represents one type of scheme which can be adopted: it does not exclude other schemes.

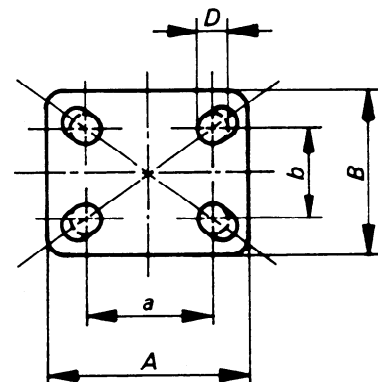


FIGURE 2 – Top-plate with oblong bolt holes

1) The dimensions of the top-plates of various shapes (round, square, triangular, etc.) will be specified by other International Standards.
2) Except $D = 7$ mm, taken from the coarse series.

TABLE – Specifications

Dimensions in millimetres

Class No.	Maximum dimensions of top-plates <i>A × B</i>	Bolt hole spacings <i>a × b</i>	Bolt hole diameters <i>D</i>	Corresponding wheels	
				Wheel diameter	Hub length
1	75 × 60	55 × 40	7	50 63	30
2	115 × 85	80 × 60	9	50 63 80 100	30
				80 100 125	45
3	145 × 110	105 × 80	11	80 100 125 150/160 200	45
				125 150/160 200	60
4	175 × 140	140 × 105	14 (11) ¹⁾	125 150/160 200 250 300	60
5	200 × 160	160 × 120	16 (14) ¹⁾	200 250 300 350 400	90
6	255 × 205	210 × 160	18 (16) ¹⁾	200 250 300 350 400 500	90
				200 250 300 350 400 500	120

1) For some light built top-plates (for instance, stamped sheet-iron top-plates) the smaller diameters are accepted.