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Aerospace — Tripod jacks — Clearance dimensions

Aéronautique — Vérins de levage tripodes — Dimensions d'encombrement

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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. www.iso.org/directives

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For an explanation on 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 WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword - Supplementary information

This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

This third edition cancels and replaces the second edition (ISO 1464:1985), which has been technically revised.

The main changes compared to the previous edition are as follows:

— Clause 3 and Table 1 have been technically revised by adding jacks with a load capacity between 1 112 kN and 1 600 kN for very heavy aircraft.

Aerospace — Tripod jacks — Clearance dimensions

1 Scope

This document specifies the minimum clear space to be provided beneath the aircraft main jacking points, in order to accommodate tripod jacks and thus ensure adequate clearance between the jacks and the adjacent aircraft structure.

This document is not intended to define fully all jack clearance dimensions. In situations where clearances are critical, it is used as a design aid only. Final critical clearances are established by using actual jack dimensions.

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 43, *Aircraft — Jacking pads*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Requirements

The minimum clear space to be provided under aircraft main jacking points, to accommodate tripod jacks, shall be in the form of a truncated right pyramid having an equilateral triangular base and limiting edges at 30° to the vertical axis.

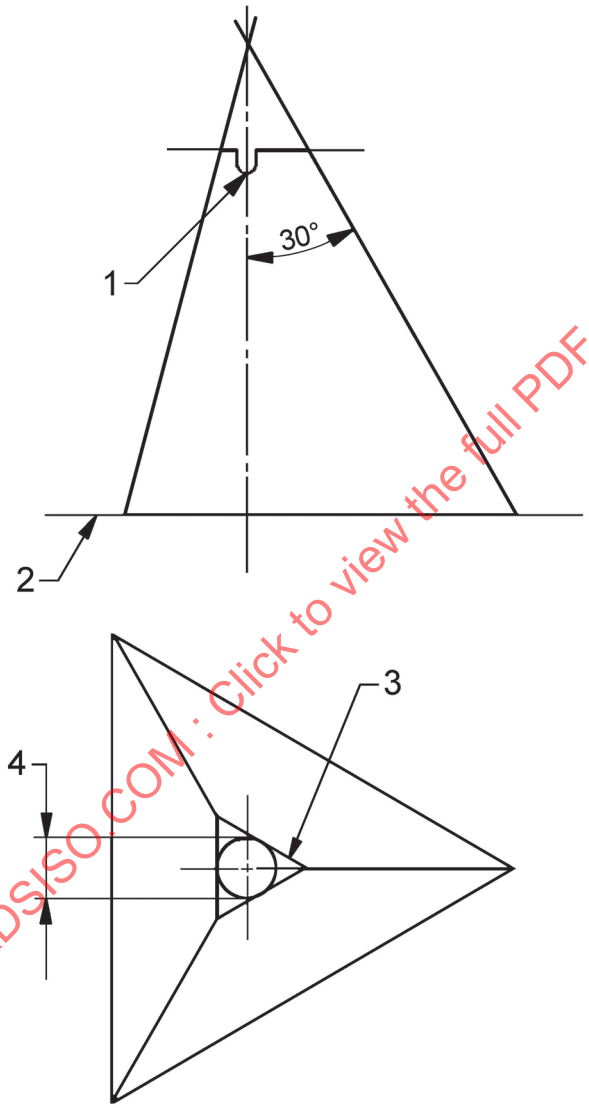
The height of the pyramid shall be sufficient to reach the airplane jacking pad at the maximum airplane height before jacking. The dimensions of the truncated top of the pyramid shall be such as to meet the dimensions of the inscribed circle given in the Table. In addition, in order to ensure adequate jack stability, the base of the pyramid shall have a minimum leg radius from the vertical centreline of 0,3 times the maximum extended jack height.

In applications where the jacking pad is embedded within the surface of the airplane, this pyramid shall have an additional clear space in the shape of a cylinder on top of the pyramid and on the vertical centreline of the pyramid. This cylinder shall be such as to meet the space requirements of the appropriate main jacking pad configuration specified in ISO 43.

The above requirements are illustrated in Figures 1, 2 and 3.

Table 1 — Values of apex circle diameter

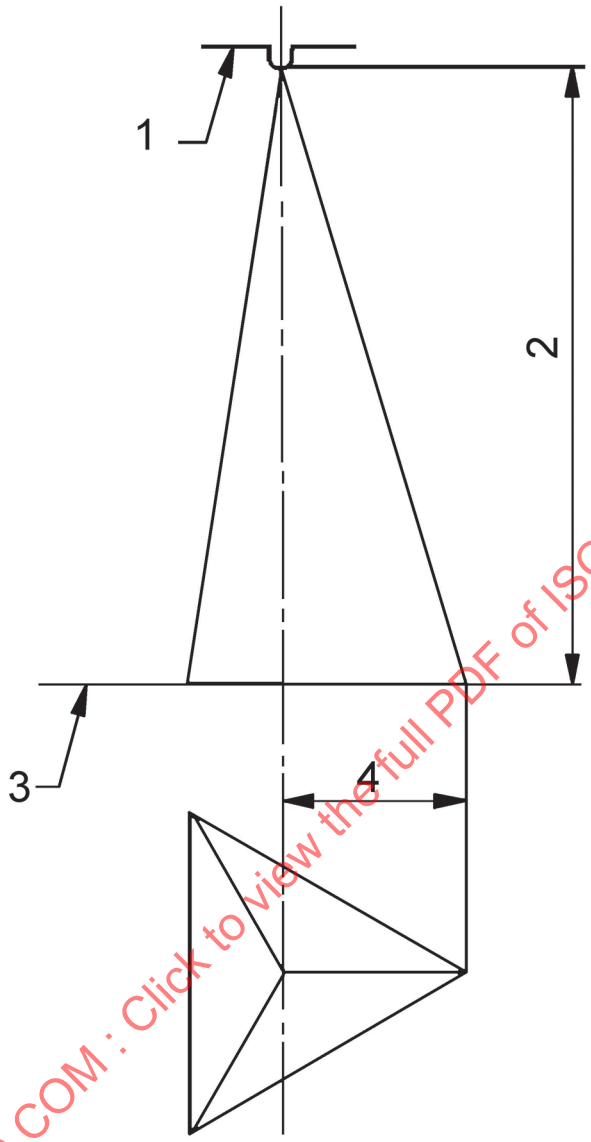
Jack capacity **kN** (lbf)	Diameter of apex circle **mm** (in)	
Less than 44,5 (10 000)	152,4	(6)
44,5 to less than 500 (10 000 to 112 000)	228,6	(9)
500 to 1 112 (112 000 to 250 000)	304,8	(12)
1 112 to 1 600 (250 000 to 359 700)	381	(15)



Key

1 jacking pad before jacking
2 floor level
3 truncated top of pyramid
4 diameter of circle from table to establish dimension of top of pyramid

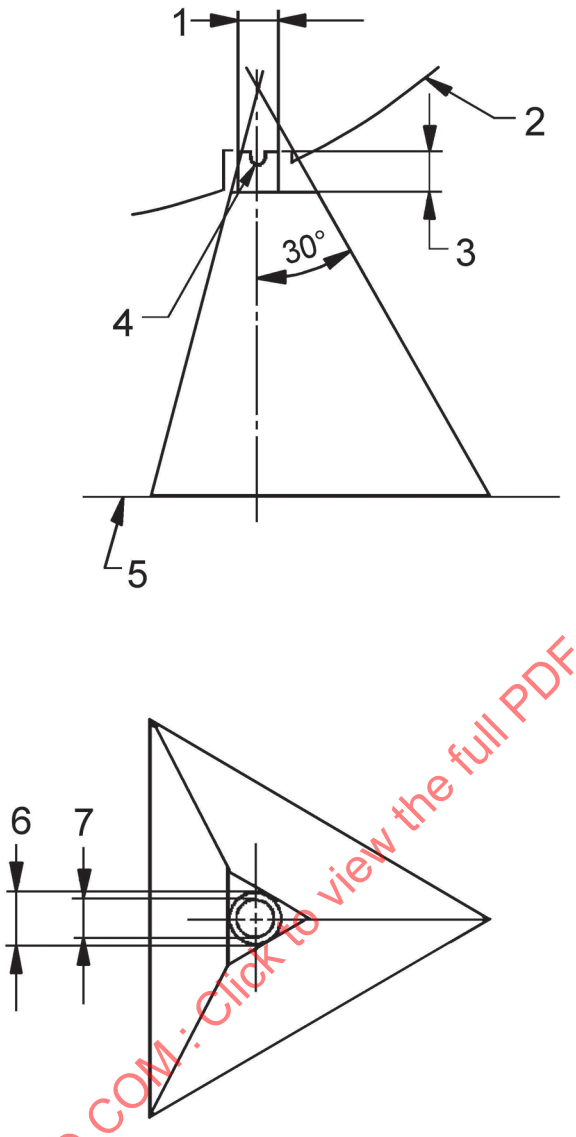
Figure 1 — Upper: side view, lower: plan view



Key

1 jacking pad
2 maximum jack height
3 floor level
4 0,3 times maximum jack height

Figure 2 — Upper: side view, lower: plan view



Key

1 clearance cylinder
2 airplane structure
3 height as required to provide structural clearance for top of truncated pyramid
4 jacking pad
5 floor level
6 diameter of circle from table
7 diameter of cylinder to provide clearance as defined in ISO 43

Figure 3 — Upper: side view, lower: plan view