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Optics and optical instruments — Ancillary devices for geodetic instruments —

Part 2: Tripods

*Optique et instruments d'optique — Équipements annexes pour les
instruments géodésiques —*

Partie 2: Trépieds



Reference number
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 12858-2 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*, Subcommittee SC 6, *Geodetic and surveying instruments*.

ISO 12858 consists of the following parts, under the general title *Optics and optical instruments — Ancillary devices for geodetic instruments*:

— *Part 1: Invar levelling staffs*

— *Part 2: Tripods*

Annex A of this part of ISO 12858 is for information only

Introduction

ISO 12858 consists of a series of parts which detail specifications for ancillary devices to be used with geodetic instruments in surveying. This second part specifies requirements for tripods.

Additional parts, covering further ancillary devices, may be added to ISO 12858 as the need arises.

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Optics and optical instruments — Ancillary devices for geodetic instruments —

Part 2: Tripods

1 Scope

This part of ISO 12858 specifies the most important requirements of telescopic tripods for surveying instruments and the connection between instrument and tripod.

The requirements in this part of ISO 12858 enable instruments and tripods of different manufacturers to be joined to one another, without prejudicing their performance and their usefulness.

This part of ISO 12858 is applicable to tripods which are used for levels, theodolites, tacheometers, GPS equipment, EDM instruments and in combination with targets, reflectors, antennae, etc.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 12858. For dated references, subsequent amendments to, or revisions of, this publication do not apply. However, parties to agreements based on this part of ISO 12858 are encouraged to investigate the possibility of applying the most recent edition of the normative documents indicated below. For undated references, the latest edition of the normative documents referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 9849, *Optics and optical instruments — Geodetic instruments — Vocabulary*.

ISO 2768-1, *Mechanical tolerances*.

3 Terms and definitions

For the purposes of this part of ISO 12858, the terms and definitions given in ISO 9849 apply.

4 Design

Two main types of tripod with telescopic legs are used:

- Type L: for light-weight or small instruments, with flat head (LF) or spherical head (LS);
- Type H: for heavy instruments.

5 General features — Dimensions

The mechanical properties of the tripod shall comply with the values given in Table 1. The shape of the tripod and the details as shown in Figure 1 are examples for information only.