INTERNATIONAL STANDARD

**ISO 7236**

Second edition
2014-11-15

# Ships and marine technology — Inland navigation vessels — Mounting attachments for demountable signal masts for push-tows

*Navires et technologie maritime — Bateaux de navigation intérieure — Ferrures d'attache pour mâts de signalisation amovibles de convois poussés*



Reference number
ISO 7236:2014(E)



ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

# Contents

Page

# 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 on 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

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 7, *Inland navigation vessels*.

This second edition cancels and replaces the first edition (ISO 7236:1991), of which it constitutes a technical revision.

Amendments

The following amendments have been made to the first edition (1991-06-15).

a) The definitions have been reworded and two definitions have been added.

b) The figures have been updated.

c) The designation has been added.

d) The International Standard has been editorially revised.



# Introduction

Since push barges do not generally have their own masts fitted with the lights required for push-tows, the masts are carried on the push vessel and fitted to the barges when the vessels are connected. Therefore, the mounting attachments are to be of a uniform type, have the same dimensions, and fit the lower part of the mast so that work can be carried out quickly, easily, and safely even in bad visibility conditions and in each weather situation. In addition, the mounting attachments ensure that the masts, and therefore the push-tow light, are correctly seated which is of fundamental importance for safety in shipping traffic.

# Ships and marine technology — Inland navigation vessels — Mounting attachments for demountable signal masts for push-tows

## 1 Scope

This International Standard applies to mounting attachments for demountable masts with an integral mast lower part for the placing of lights on push barges. It specifies construction, dimensions, manufacture, arrangement, and means of attachment.

## 2 Normative references

The following referenced documents are indispensable for the application 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 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

EN 10025-2, *Hot rolled products of structural steels — Part 2: Technical delivery conditions for non-alloy structural steels*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

**3.1**
**mounting attachment**
device comprising of a mast stand and mast clamp which are arranged on the barge in such a way that they can maintain a signal mast in the specified position

**3.2**
**mast stand**
device fixed to the deck which accepts the lower part of the signal mast and secures it against rotation about the vertical mast axis

**3.3**
**mast clamp**
device which secures the top of the lower portion of the signal mast

**3.4**
**mast lower part**
lower part of the signal mast which is inserted into the mounting attachment

## 4 Technical requirements

General tolerances: ISO 2768:— c.

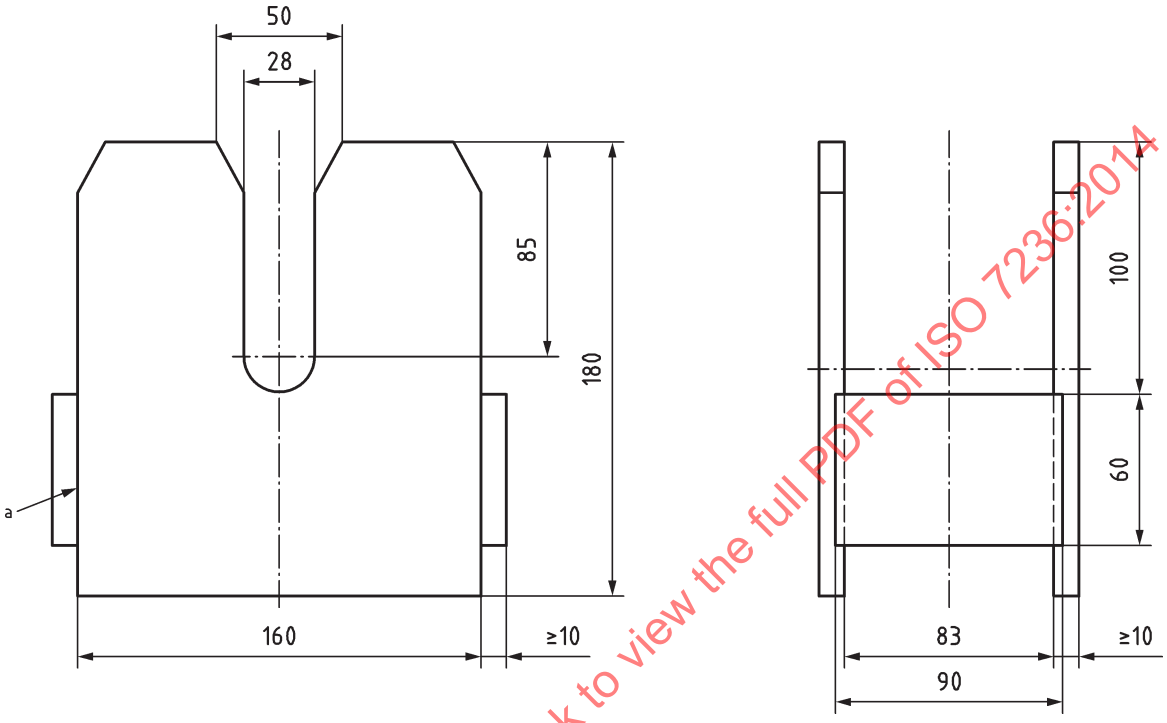
The requirements relate to construction, dimensions, design, arrangement, and means of attachment.

## 4.1 Dimensions

The mounting attachment is not expected to conform to the design illustrated in this International Standard; compliance is only required in the case of the dimensions specified.

## 4.2 Mast stand

Dimensions in millimetres




**Key**

Smooth edges

a Welded.

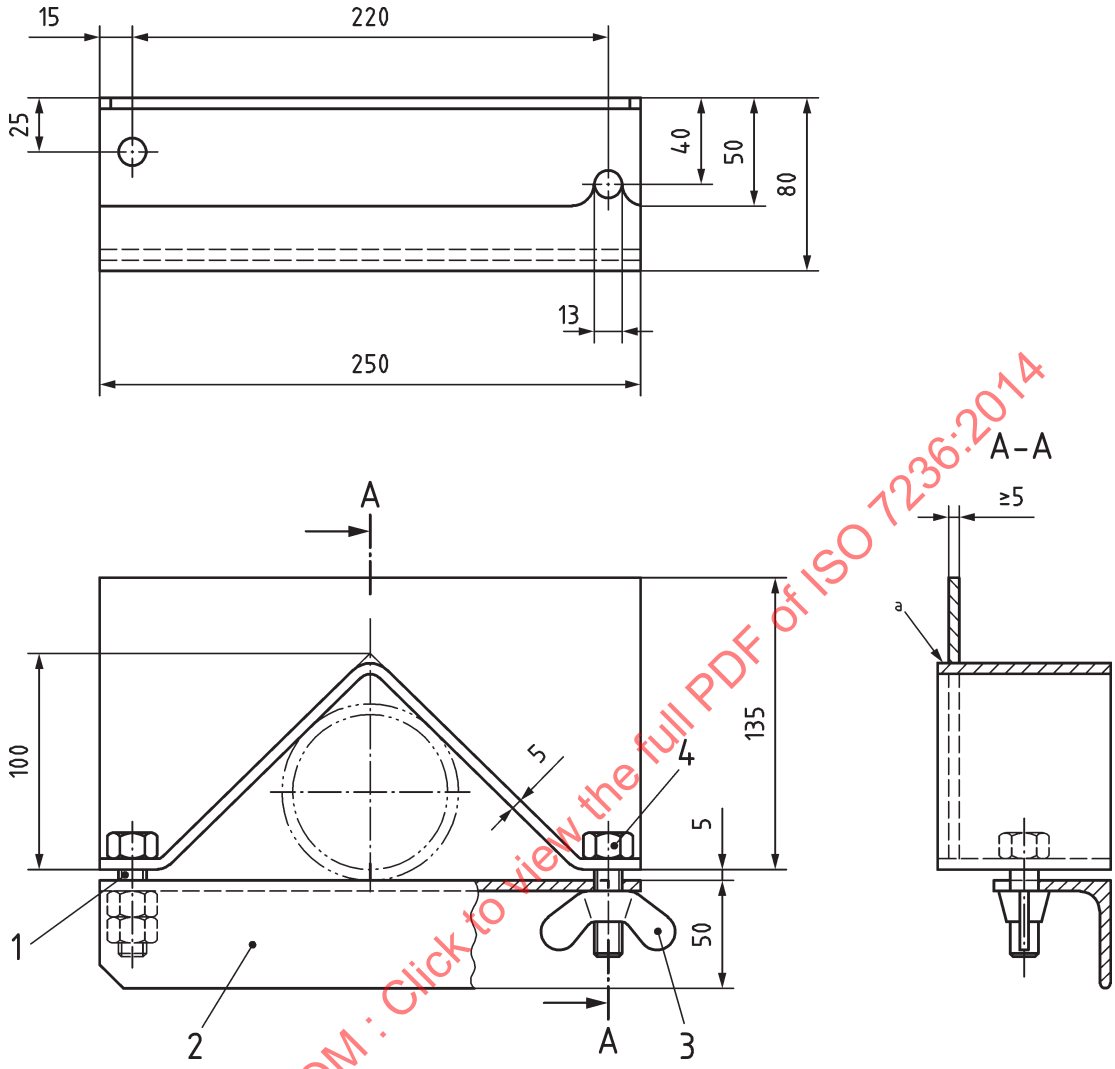
**Figure 1 — Mast stand**

## 4.3 Mast clamp

The clamp is shown to be attached using screws and nuts/wing nuts. Any equivalent means of attachment is permitted provided that the mast is held securely.

Only captive screws, nuts, or wing nuts shall be used.

Dimensions in millimetres




**Key**

View shown without screws or nuts

1 screw M 12 × 40 with 2 nuts

2 L 50 × 50 × 5

3 wingnut M 12

4 screw M 12 × 50 welded on

[a] Welded.



**Figure 2 — Mast clamp**

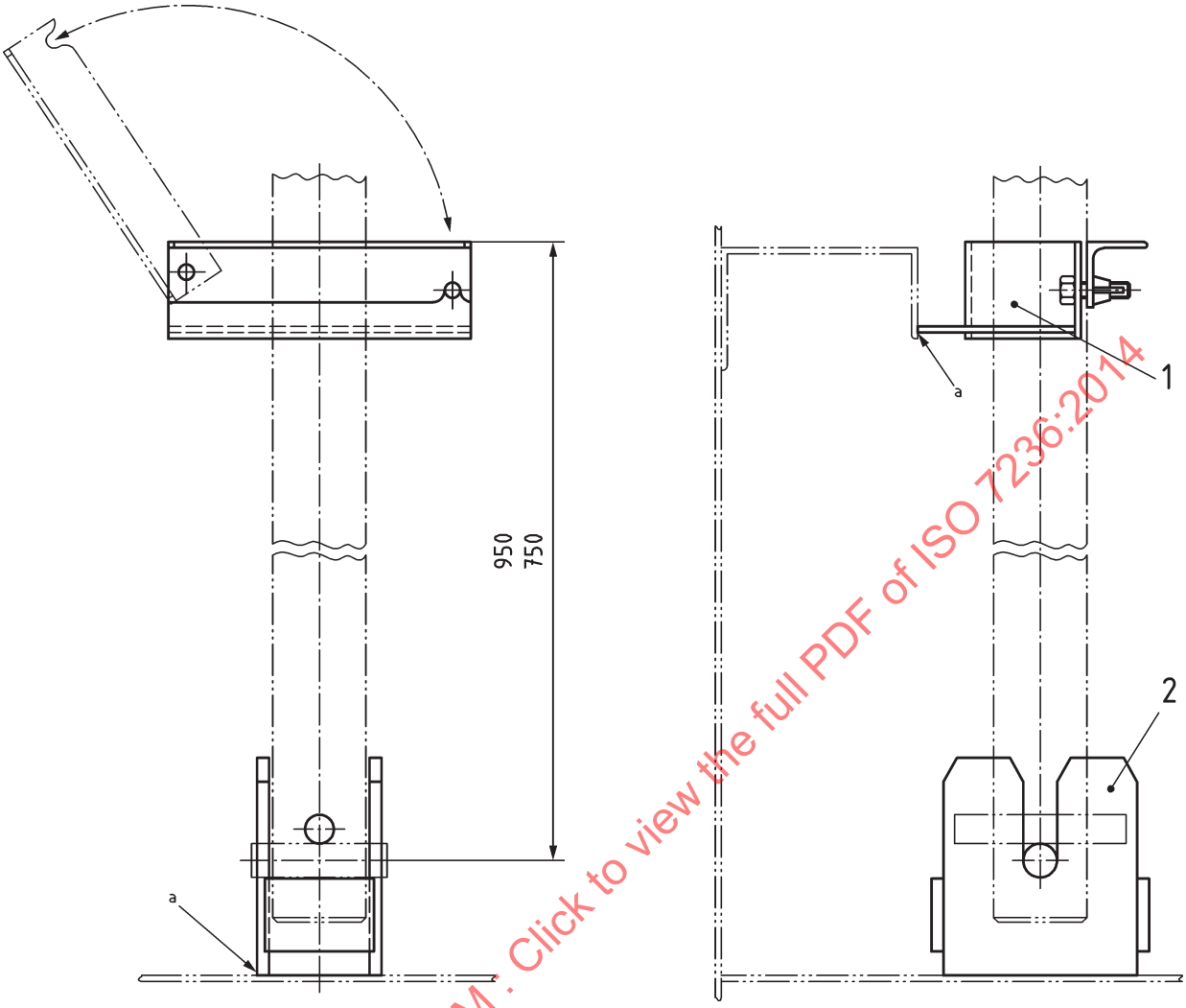
## 4.4 Mounting attachment

The mounting attachment consists of the mast stand and a mast clamp.

The mast stand shall be positioned so that the signal mast bearing pins are precisely aligned parallel to the longitudinal and transverse axes of the vessel. In addition, the mast stand and mast clamp shall be arranged in such a way that axis of the lower part of the signal mast is perpendicular to the design waterline plane.

The arrangement illustrated in Figure 3 is an example of this.

Dimensions in millimetres




**Key**

Mast clamp shown without screws or nuts

1 mast clamp

2 mast stand bearing plate

a Welded.

**Figure 3 — Mounting attachment**



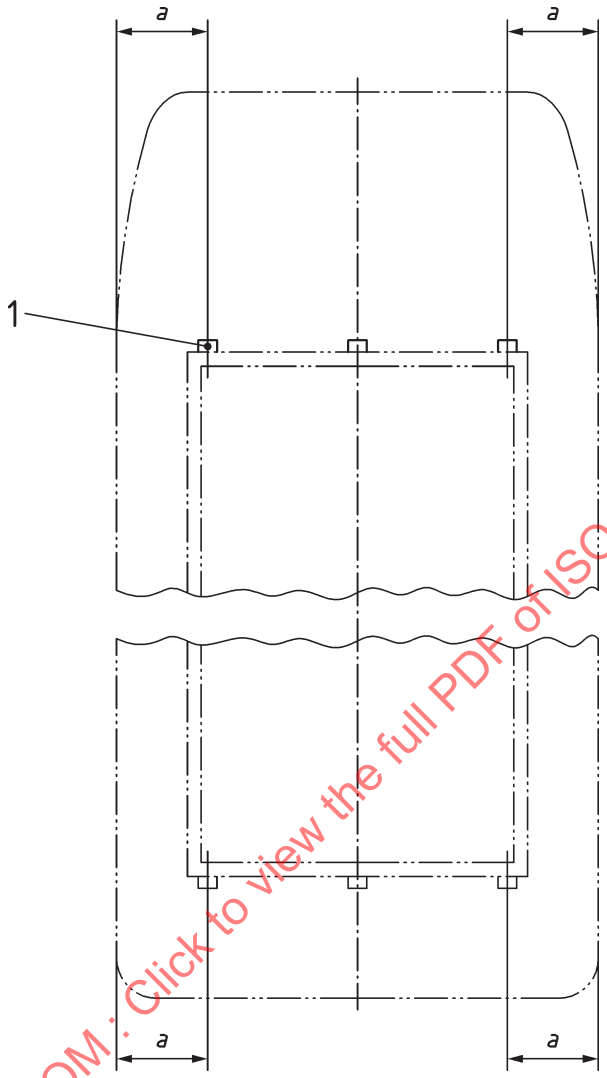
## 4.5 Mounting attachment arrangement on the push barge

The mounting attachments shall be arranged on the push barge as shown in Figure 4.

The mounting attachments fitted to the vessel sides shall be arranged so that the masts can be mounted parallel to the longitudinal vertical plane of the vessel. For safety reasons, they shall not be positioned within the clear width of the walkway and shall be arranged to ensure an easy mounting of the mast.

The attachments fitted in the centre of the vessel can be rotated by 90° (e.g. in restricted conditions) so that the masts can be mounted parallel to the transverse vertical plane of the vessel.

Dimensions in millimetres




**Key**

1 mounting attachment.

a ≤1 000

**Figure 4 — Mounting attachment arrangement on the push barge**



### 4.6 Mast

Only the dimensions of the lower end of the mast (mast lower part) are specified in Annex A. The upper part of the mast, its height, the navigation light arrangement, and other characteristics are not covered by this International Standard. They are governed by the shipping regulations of the corresponding navigation zone.

## 5 Material

Weldable steel is as specified in EN 10025-2.

The screws, nuts, or bolts used for the clamp shall be made of stainless steel or other non-corrodible materials.