PD ISO/PAS 19697:2014

BSI Standards Publication

Ships and marine technology — Navigation and ship operations — Electronic inclinometers

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National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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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.

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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 6, *Navigation and ship operations*.

Annex A is for information only and Annex B forms detailed test methods.

Introduction

An electronic inclinometer is an electronic device that provides information about roll period, roll amplitude, and heel angle of the ship. Electronic inclinometers are intended to support decision-making processes on board in order to avoid dangerous situations as well as assist in maritime casualty investigation. The requirements in this Publicly Available Specification take into account human factors, ergonomic principles, and advances in technology.

PUBLICLY AVAILABLE SPECIFICATION **ISO/PAS 19697:2014(E)**

Ships and marine technology — Navigation and ship operations — Electronic inclinometers

1 Scope

This Publicly Available Specification specifies the performance requirements, methods of testing, and test results of electronic inclinometers required by the performance standard, IMO resolution MSC.363 (92) in addition to the general requirements contained in resolution A.694 (17) and is associated with IEC 60945.

The electronic inclinometers provide information about actual heel angle, roll amplitude, roll period to support decision-making process on board in order to avoid dangerous situations as well as to assist in maritime casualty investigation. The electronic inclinometers are mainly composed of a set of sensors, a signal processor, a display, an input device, and an interface to other systems.

It does not apply to the electronic inclinometers installed for purposes, which are outside the scope of this Publicly Available Specification, e.g. monitoring of cargo status.

Where a requirement in this Publicly Available Specification is different from IEC 60945, the requirement in this Publicly Available Specification takes precedence.

NOTE All requirements that are extracted from the recommendations of IMO Resolution MSC.363 (92), performance standards for electronic inclinometers, are printed in italics and the resolution and paragraph numbers are indicated in brackets.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60945, *Maritime navigation and radiocommunication equipment and systems — General requirements — Methods of testing and required test results*

IEC 61162-1, *Maritime navigation and radiocommunication equipment and systems — Digital interfaces — Part 1: Single talker and multiple listeners*

IEC 61162-2, *Maritime navigation and radiocommunication equipment and systems — Digital interfaces — Part 2: Single talker and multiple listeners, high-speed transmission*

IEC 61162-3, *Maritime navigation and radiocommunication equipment and systems — Digital interfaces — Part 3: Serial data instrument network*

IEC 61162-450, *Maritime navigation and radiocommunication equipment and systems — Digital interfaces — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection*

3 Terms and definitions

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

3.1
actual heel angle
momentary angle of roll referenced to a levelled ship to port or starboard side

[SOURCE: IMO MSC.363 (92) Paragraph 3.1]

