International Standard

ISO 22090-1

Ships and marine technology — Transmitting heading devices (THDs) —

Part 1: Gyro-compasses

Navires et technologie maritime — Dispositifs de pilotage à transmission de données —

Partie 1: Compas gyroscopiques

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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.

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 document 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).

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This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 6, *Navigation and ship operations*.

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This third edition cancels and replaces the second edition (ISO 22090-1:2014), which has been technically revised.

The main changes are as follows:

— Clause 4 (abbreviated terms) has been added;

— in 5.8, requirements related to bridge alert management have been added;

— in 6.1, a requirement for display equipment has been added;

— in 6.13, a test method for requirements related to bridge alert management has been added;

— Annex A has been replaced with a new Annex on alerts definition, including alert identifiers;

— in Annex B, an IEC 61162 series interfaces overview has been added;

— the normative references and bibliography have been updated.

A list of all parts in the ISO 22090 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document is aligned with IMO Resolution MSC.116(73) on performance standards for marine transmitting heading devices (THDs).

Any text in this document which is a citation from the IMO Resolution MSC.116(73), appears in italics. Within these citations, any changes to the original wording of the IMO Resolution MSC.116(73) are written in upright font.

In this document, the following verbal forms are used:

— “shall” indicates a requirement;

— “should” indicates a recommendation;

— “may” indicates a permission;

— “can” indicates a possibility or a capability.

The ISO 22090 series consists of the following parts, under the general title *Ships and marine technology — Transmitting heading devices (THDs)*:

— ISO 22090-1 (this document) ongyro-compasses;

— ISO 22090-2 on geomagnetic principles;

— ISO 22090-3 on GNSS principles.

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Ships and marine technology — Transmitting heading devices (THDs) —

Part 1: Gyro-compasses

1 Scope

This document specifies general requirements, construction, performance and testing methods of transmitting heading devices (THDs) using gyro-compasses, which are required to comply with the International Convention for the Safety of Life at Sea (SOLAS) 1974 (as amended), Chapter V, and IMO Resolution MSC.116(73).[7]

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.

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

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

IEC 62288, *Maritime navigation and radiocommunication equipment and systems — Presentation of navigation-related information on shipborne navigational displays — General requirements, methods of testing and required test results*

IEC 62923-1, *Maritime navigation and radiocommunication equipment and systems — Bridge alert management — Part 1: Operational and performance requirements, methods of testing and required test results*

IEC 62923-2, *Maritime navigation and radiocommunication equipment and systems — Bridge alert management — Part 2: Alert and cluster identifiers and other additional features*

IMO Resolution MSC.116(73), *Performance standards for marine transmitting heading devices (THDs)*

IMO Resolution MSC.302(87), *Adoption of performance standards for bridge alert management*

IMO Resolution A.424(XI), *Performance standards for gyro-compasses*

IMO Resolution A.694(17), *General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids*

IMO Resolution A.813(19), *General requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipment*

IMO Resolution A.821(19), *Performance standards for gyro-compasses for high-speed craft*

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