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Ships and marine technology — Technical requirements for dry-disconnect/connect couplings for bunkering liquefied natural gas

Navires et technologie maritime — Exigences techniques relatives au couplage de connexion et de déconnexion à sec pour le soutage de gaz naturel liquéfié

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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 (see www.iso.org/directives).

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For an explanation of 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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*.

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.

Ships and marine technology — Technical requirements for dry-disconnect/connect couplings for bunkering liquefied natural gas

1 Scope

This document specifies the design, minimum safety, functional and marking requirements, as well as the interface types and dimensions and testing procedures for dry-disconnect/connect couplings for LNG hose bunkering systems intended for use on LNG bunkering ships, tank trucks and shore-based facilities and other bunkering infrastructures. It is not applicable to hydraulically operated quick connect/disconnect couplers (QCDC) used for hard loading arms, which is covered in ISO 16904.

Based on the technology used in industrial manufacturing at the time of development of this document, it is applicable to sizes of couplings ranging from DN 25 to DN 200.

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 amendment) applies.

ISO 3834 (all parts), *Quality requirements for fusion welding of metallic materials*

ISO 5208:2015, *Industrial valves — Pressure testing of metallic valves*

EN 1092-1, *Flanges and their joints*

EN 12266-1:2012, *Industrial valves — Testing of metallic valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*

ASME B16.5-2009, *Pipe flanges and flanged fittings*

ASME B31.3-2018, *Process piping*

3 Terms and definitions

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

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

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

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

3.1
bunkering
operation of transferring LNG fuel to a vessel

[SOURCE: ISO 20519:2017, 3.1, modified — Note 1 to entry has been deleted.]