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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39038-2020

**Ship and marine technology--Technical requirements for
liquefied natural gas bunkering dry-disconnect/connect
coupling**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

The translation method used in this standard is equivalent to ISO 21593.2019 ``Ship and Offshore Technology Liquefied Natural Gas Filling Dry Quick Coupler

Technical Requirements.

The Chinese documents that have consistent correspondence with the normatively cited international documents in this standard are as follows.

---GB/T 12467 (all parts) Quality requirements for fusion welding of metallic materials [ISO 3834 (all parts)].

This standard has made the following editorial changes.

---Include the content of ISO 21593.2019 technical errata.

This standard was proposed and managed by the National Marine Machinery Standardization Technical Committee (SAC/TC137).

Drafting organizations of this standard. China Shipbuilding Industry Comprehensive Technology and Economic Research Institute, Wuhan Code Research Institute of China Classification Society, Chengdu Andy Biotech

Co., Ltd., Zhangjiagang Furui Valve Co., Ltd., Wuhan Sanjiang Aerospace Yuanfang Technology Co., Ltd., Hangzhou Xinya Cryogenic Technology Co., Ltd.,

Yantai Taiyue Fluid Technology Co., Ltd., Guangdong CSSC Military-civilian Integration Research Institute Co., Ltd.

1 Scope

This standard specifies the design, safety and functional minimum requirements, markings, and interface types of liquefied natural gas (LNG) dry quick couplings.

Type and size, test procedures, etc.

This standard is applicable to dry LNG hose bunkering systems installed in LNG bunkering ships, tankers, shore-based facilities and other bunkering facilities.

Type quick couplings are not suitable for hydraulic quick couplings (QCDC) used by rigid loading arms specified in ISO 16904. This standard applies

Used for dry quick couplings with a nominal size of DN25~DN200.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

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

ISO 5208.2015 Industrial valves-Pressure testing of metallic valves
(Industrial valves-Pressure testing of metallic
valves)

EN1092-1 flanges and their joints (Flanges and their joints)

EN12266-1.2012 Industrial valve metal valve test part 1. pressure test, test procedure and acceptance standard mandatory

Sexual requirements (Industrial valves-Testing of metallic valves-Part 1. Pressure tests,
test procedures and ac-
ceptance criteria-Mandatory requirements)

EN12266-2.2012 Industrial Valve Metal Valve Test Part 2. Supplementary Requirements for Test, Test Procedure and Acceptance Standard

(Industrial valves-Testing of metallic valves-Part
2. Tests, test procedures and acceptance criteria-Supple-
mentary requirements)

ASME B16.5 pipe flanges and flange accessories (Pipe flanges and flanged fittings)

ASME B31.3-2018 Process piping

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Raise bunkering

The operation of delivering LNG fuel to ships.

[ISO 20519.2017, definition 3.1]

3.2

Dry-disconnect

Through equipment design or program practice, the LNG or natural gas discharged into the atmosphere under normal operation is reduced to negligible safety