SLOVENSKI STANDARD
oSIST prEN 18071:2024

01-oktober-2024

Plovila za celinske vode - Oskrbovanje metanola

Inland navigation vessels - Methanol bunkering

Fahrzeuge der Binnenschifffahrt - Bunkerung von Methanol

Bateaux de navigation intérieure - Avitaillement en méthanol

Ta slovenski standard je istoveten z: **prEN 18071**

ICS:

47.060	Jezerska in rečna plovila	Inland navigation vessels
75.200	Oprema za skladiščenje nafte, naftnih proizvodov in zemeljskega plina	Petroleum products and natural gas handling equipment

oSIST prEN 18071:2024 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 18071

July 2024

ICS 47.020.30; 47.020.85; 47.060; 75.200

English Version

Inland navigation vessels - Bunkering of methanol

Bateaux de navigation intérieure - Soutage du méthanol

Fahrzeuge der Binnenschifffahrt - Bunkerung von Methanol

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 15.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword

This document (prEN 18071:2024) has been prepared by Technical Committee CEN/TC 15 “Inland navigation vessels”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request M/581 addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

This European Standard specifies safety requirements for methanol bunkering within the meaning of European Parliament and Council Directive (EU) 2016/1629 of 14 September 2016 laying down technical requirements for inland waterway vessels.

This document on the bunkering of methanol is based on research outcome of the Workshop CEN/WS 106 ‘Specification for bunkering of methanol’ in which was developed the CWA 17540 ‘Ships and marine technology – Specification for bunkering methanol fuelled vessels’. Next to this as a reference is used the existing standard EN ISO 20519 ‘Ships and marine technology – Specification for bunkering of liquefied natural gas fuelled vessels’.

Introduction

Methanol also known as methyl alcohol is a hydrocarbon fuel that can be made from non-fossil sources and is very clean burning when compared to conventional marine fuels. Therefore methanol is increasingly being used as sustainable fuel for vessels for environmental reasons. Its usage is expected to expand significantly in the future. Therefore this need to standardize the bunkering requirements for inland navigation vessels to a reasonable degree, so that vessel operators have the tools to select vessel fuel providers that meet set safety and fuel quality standards, in order to conduct methanol bunkering operations safely.

1 Scope

This document describes requirements for methanol bunkering transfer systems to and from inland navigation vessels. The various scenarios for the bunker facility operator concern land, truck and vessel (barge). It concerns design, dimensions and technical requirements for the transfer of methanol, including the nozzle, connection, male and female flanges and failsafe features.

This document also specifies the process and procedures for the bunkering operations, responsibilities and risk assessment scope, taking into consideration the specific hazards in handling and bunkering methanol fuel. Next to this, the requirement for the methanol provider to provide a bunker delivery note and training and qualification of personnel involved.

This document is not applicable to cargo operations.

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.

EN 14420-6:2013, *Hose fittings with clamp units — Part 6: TW tank truck couplings*

EN IEC 60309-1, *Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes — Part 1: General requirements (IEC 60309-1)*

ES-TRIN, *European Standard for laying down technical requirements for Inland Navigation Vessels*

3 Terms and definitions

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

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

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

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

3.1
bunker
vessel fuel primarily used to produce power for propulsion, heating and generating electricity through combustion in machinery equipment onboard

3.2
bunkering
transfer of bunker from land-based or floating facilities into a vessel's permanent tanks or connection of portable tanks to the vessel's fuel supply system

3.3
bunkering agreement
contractual agreement applying to a bunker transfer

3.4
bunker delivery note
BDN
official document from the bunker facility operator providing information on the quantity, quality and type of the fuel delivered to the vessel

3.5
bunkering operation supervisor
qualified person from the receiving vessel and at the methanol supplying facility (truck, train, bunker vessel or bunker terminal) assigned with overall responsibility for bunkering operations

3.6
manifold watch
qualified person from the receiving vessel tasked with monitoring the transfer system

3.7
hose watch
qualified persons nominated by the bunker facility operator (truck, train, bunker vessel or bunker terminal) to maintain a watch on the fuel supply side of the transfer system

3.8
bunker vessel
barge or tanker used for the delivery of fuel to the receiving vessel

3.9
bunker terminal
fixed facility on or near shore which can deliver fuel to the receiving vessel

3.10
truck
road tanker used for the delivery of fuel to the receiving vessel

3.11
train
rail vehicle used for the delivery of fuel to the receiving vessel

3.12
inspection
process in which the design and the condition of a vessel is evaluated to determine its compliance with rules and standards

3.13
inspection body
competent authority assisting in the uniform and effective implementation of inland vessel navigation codes and regulations, in charge to determine the compliance of the vessel with the requirements

3.14
controlled zone
area extending from the bunker manifold on the receiving vessel and the supply source (road tanker, bunker vessel or bunker terminal) during the bunker operation which can have restrictions in place

3.15
safety dry break-away coupling
SBC
coupling that provides a safe release and isolation between the receiving vessel and the delivering vessel or facility with a minimum of spill so as to protect the bunker equipment from advertent excessive loads (pull away accidents)

3.16
facility
infrastructure used for storage and/or transfer of methanol

3.17
emergency shut down system
ESD
system that safely and effectively stops the transfer of fuel between the receiving vessel and the delivering vessel or shore based facility

3.18
safety management system
SMS
set of procedures an organisation needs to follow in order to meet its safety objectives

3.19
safety data sheet
SDS
detailed information bulletins prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures

3.20
methanol transfer system
equipment between the delivering facility and the bunker manifold on the receiving vessel

Note 1 to entry: Such equipment can include vessel to vessel transfer arms, hoses, safety dry break-away coupling (SBC), flanges, couplings. In addition, this includes the ESD vessel/shore or vessel/vessel link used to connect the receiving and supplying ESD systems.

3.21
technical standard
standard that prescribe requirements for one or more of the following: operations, equipment design/fabrications or testing methodology

3.22
transfer arm
bunker system of rigid pipe sections connected by swivelling joints, often combined with flexible hose sections that together comprise an articulated system for transferring fuel to a vessel being bunkered

3.23
static electricity
electricity produced by movement between dissimilar materials through physical contact and separation

3.24
safety zone
area around the bunkering facility where only dedicated and essential personnel and activities are allowed during bunkering

3.25
vapour management
treatment process of methanol vapour

Note 1 to entry: The treatment process is recovery – nitrogen – vent.

4 Abbreviated terms

For the purpose of this document, the following abbreviated terms apply:

Term	Description	Explanation
CCNR	Central Commission for the navigation of the Rhine	The Central Commission for the Navigation of the Rhine (CCNR) is an international organization (Belgium, France, Germany, Switzerland and The Netherlands) that exercises an essential regulatory role in the navigation of the Rhine. It is active in the technical, legal, economic and environmental fields. In all its areas of action, its work is guided by the efficiency of transport on the Rhine, safety, social considerations, and respect for the environment.
ES-TRIN	European Standard laying down Technical Requirements for Inland Navigation vessels	Technical standards adopted by the European Committee for drawing up standards in the field of inland navigation (CESNI) in various areas, in particular standards for technical requirements for vessels, professional qualifications, and information technologies. A vessel operating on EU waterways or Rhine shall carry either a Union inland navigation certificate or a Rhine vessel inspection certificate. Both certificates are issued by the competent national authorities (inspection bodies) and confirm the full compliance of the vessel with the technical requirements (ES-TRIN). ES-TRIN is binding in accordance with Directive (EU) 2016/1629 and CCNR's Rhine vessel inspection regulations."
ES-QIN	European standard for qualification in inland navigation	A set of standards, the so-called 'Prague Standards', adopted in 2019 and divided into 5 main parts as follows: (1) standards for competences, (2) standards for practical examinations, (3) standards for the approval of simulators, (4) standards for medical fitness and (5) standards for models of crew-related documents.
IMO	International Maritime Organization	A specialized agency of the United Nations whose purpose is "to provide machinery for cooperation among governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning efficiency of navigation, and prevention and control of marine pollution from ships."