Certificate No: LR26474910MB
Issue Date: 06/11/2026
Expiry Date: 16/10/2031

Notified Body authorised by
BSH 0800-S23/4822:013

# EC Type Examination (Module B) Certificate

**USCG-EU MRA**

This is to certify that:
LLOYD'S REGISTER Marine Deutschland GmbH (LRMD), designated as a "notified body" based on the notification of the Federal Maritime and Hydrographic Agency of Germany, did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU and the valid Commission Implementing Regulation (EU) in force indicating design, construction and performance requirements and testing standards for marine equipment, subject to the conditions below and the attached Schedule which also forms part of this Certificate.

## Manufacturer LOROWERK

| | |
|---|---|
| **Address** | K.H. Vahlbrauk GmbH & Co. KG, Kriegerweg 1, Bad Gandersheim, 37581, Germany |
| **Reference** | Marine Equipment Directive 2014/90/EU, Regulation (EU) 2026/1434 |
| **Regulation Item (No. & Item Designation)** | MED/3.26b Penetrations Through 'A' Class Divisions - Pipe, Duct, Trunk Etc. Penetrations |
| **Product Type** | PIPE PENETRATION (STANDARD FIRE TEST) |
| **Product Description** | Fire Resisting Single Steel Pipe, Circular Penetration System – Type: "LORO-X" for applications in steel bulkheads and decks. |
| **Specified Standard** | IMO Res. MSC.307(88)-(2010 FTP Code) Annex 1, Part 3<br>IMO MSC.1/Circ.1488<br>**Type approval requirements**<br>SOLAS 74 Reg. II-2/9.<br>**Carriage and performance requirements**<br>SOLAS 74 Reg. II-2/9, IMO MSC.1/Circ.1276 Revision 1, IMO MSC.1/Circ.1655. |
| **Row of the Regulation Item** | Row 1 of 1 of |
| **Trade Name** | "LORO-X" Single Steel Pipe, Circular Penetration System. |

The attached Design Appraisal Document (schedule) forms part of this certificate. This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Downloaded Copy

Lloyd's Register Marine Deutschland GmbH, Willy-Brandt-Straße 59-65, 20457 Hamburg, Germany.
A member of the Lloyd's Register group

**Chandrashekhar Aher**

Team Lead - Fire and Safety
For and on behalf of Lloyd's Register Marine Deutschland GmbH (2923)

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Certificate No: LR26474910MB
Issue Date: 06/11/2026
Expiry Date: 16/10/2031

Notified Body authorised by
BSH 0800-S23/4822:013

# EC Type Examination (Module B) Certificate

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to and agreed with the notified body named on this certificate. The manufacturer should notify LRMD of any modification or changes to the equipment in order to obtain a valid Certificate.

This equipment is covered by the scope of the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed on 27 February 2004 and amended by Decision No.1/2023 26 May 2023 according to U.S. Coast Guard approval category number:

164.138

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production Module certificate (Module D, E or F).

Should the specified regulations or standards be amended during the period of validity of this certificate, the product is to be re-approved prior being placed on the market and on board vessels to which the amended regulations or standards apply.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

Downloaded Copy

Lloyd's Register Marine Deutschland GmbH, Willy-Brandt-Straße 59-65, 20457 Hamburg, Germany.
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.