

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007XR

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Emergency escape breathing devices (EEBD): self-contained open-circuit compressed air breathing apparatus with a hood for escape

with type designation(s)
THHX15-1

Issued to

Dongtai Martian Ship Equipment Co., Ltd. Shanghai branch
Shanghai, China

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2022/1157,
item No. MED/3.41b. SOLAS 74 as amended, Regulation II-2/13, FSS Code 3 and IMO MSC/Circ. 849

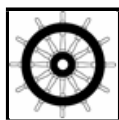
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2027-10-27**.

Issued at **Hamburg** on **2022-10-28**

DNV local station:
Shanghai

Approval Engineer:
Michael Oberländer



Notified Body
No.: **0098**

for DNV SE

Christine Mydlak-Roeder
Head of Notified Body

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

"THHX15-1" is a self-contained open-circuit compressed air breathing apparatus with a hood for escape.

Model	Air cylinder material	Cylinder volume	Working pressure	Capacity	Output flow	Service time	Weight	Packing size
THHX15-1	Seamless steel cylinder	3 ltr	21 MPa	> 600 ltr	≥ 35 ltr/min	> 15 min	≤ 7.5 kg	545 x 165 x 210 mm

For further details refer to the documentation listed below under "Type Examination documentation".

Application/Limitation

Approved as an emergency escape breathing device in accordance with SOLAS II-2 Reg.13.3.4 and FSS Code Ch.3.2.2. to provide personal breathing protection during escape from a compartment that has hazardous atmosphere.

Not to be used for fighting fires or when entering oxygen deficient tanks or voids, or worn by fire-fighters.

Air cylinders and valves to be designed and manufactured in accordance with a national standard

The compressed air shall comply with EN 12021.

As the weight of the THHX15-1 exceeds 5 kg, it is not designed to be carried on the man for at least 8 h, in accordance with EN 1146:2005 Para.6.6.

Each product shall be delivered with its manual for use and maintenance. Where the reliable performance of the breathing device or parts thereof are dependent of special attention due to ageing, use, cleaning or disinfection, storage conditions, service, replacement of parts etc., this shall be clearly stated there.

Rated working duration: 15 minutes

Type Examination documentation

- Test report No. 2022013 dated 2022-07-15 from Wuhan Testing Center of Marine Life-saving Appliances, Wuhan, China.
- Technical drawing no.: THHX15-1-00-00 Rev.A
- Product Feature File no.20220502
- THHX15-1 EEBD User Manual no.20220508
- Certificate of Conformity (Z-PRC-22-07-5010344382-008 dated 2022-07-05) for seamless steel cylinder manufactured by Jiangsu Jiuwei High Pressure Vessel Manufacture Co.,Ltd.

Tests carried out

Tested according to ISO 23269-1:2008 and EN 1146:2005.

Marking of product

The product is to be marked according to IMO FSS Code Ch.3.2.2.4, ISO 23269-1:2008 Para.9 and EN 1146:2005 Para.8 and with name and address of manufacturer, type designation and the MED Mark of Conformity (see first page).

The pressure vessel marking shall include the charging pressure, capacity and stamp of the authorized inspection body.

In addition, each EEBD should be marked with "FOR ESCAPE ONLY".