TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB0000997

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

This is to certify:

that the Lifejackets

with type designation(s)
Lifejacket Type: HX-I

issued to
Shanghai Martian Ship Equipment Co., Ltd.
Shanghai, **China**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2024/1975,**
item No. MED/1.4. SOLAS 1974 as amended, Reg. III/4, III/7, III/22, III/34 & X3, LSA Code, 2000 HSC Code 8 and IMO MSC/Circ.922, IMO MSC.1/Circ.1304 and 1470 and MSC.1/Circ.1628 and Res. MSC.481 (102)

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

This Certificate is valid until **2030-03-02**.

Issued at **Hamburg** on **2025-03-03**

DNV local unit:
Shanghai

Approval Engineer:
Timo Linn

Notified Body
No.: **0098**

for **DNV SE**

Mydlak-Röder, Christine
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 USD 300 000.

Product description

"Lifejacket Type: HX-I" is an inherently buoyant orange coloured lifejacket for Adults, with the following inherent buoyancy:

- Approximate inherent buoyancy of Adult prototype: 156 N

Material	Type designation	Manufacturer
Buoyancy Material	EPE foam, 2.5 cm thick	Yancheng Huyuan Packaging Technology Co.,Ltd
Fabric material	Polyester Oxford	Suzhou Mingwei Water Lifesaving Equipment Co.,Ltd .

Application/Limitation

The Adult Life Jacket is approved for persons of more than 43 kg and a minimum height of 155 cm.

Retro-reflective materials shall be approved in accordance with the Marine Equipment Directive and bear the MED Mark of Conformity.

The design assessment is based on IMO Res. MSC 48(66) as amended by IMO Res. MSC 207(81), IMO Res. MSC 218(82), IMO Res. MSC.368(93) and Res. MSC.481 (102).

Production testing shall be carried out according to IMO Res. MSC 81(70), part 2.

Type Examination documentation

Drawings	Date
Adult Life Jacket , Drawing No. DTHX-2019051701, Page 1	-
List of Material	-
Reports	**Date**
Evaluation and Test report No. 2019130, issued by Wuhan Testing Center of Marine Life-saving Appliances, Wuhan	2019-10-10 – 2019-11-15
Other	**Date**
User Manual	-

Tests carried out

Tests carried out in accordance with Revised Recommendation on Testing of Life-Saving Appliances, IMO Res. MSC. 81(70), part 1, including IMO Res. MSC 200(80), IMO Res. MSC 226(82), IMO Res. MSC 323(89), IMO Res. MSC 378(93) and Res. MSC.481 (102) – Type II.

Marking of product

The product is to be indelibly marked with name and address of the manufacturer, type designation and date of manufacture. The markings shall comply with the LSA Code (IMO Res. MSC.48(66)), item 1.2.2.9 and 2.2.1.6 and the MED Mark of Conformity (see page 1).