TYPE APPROVAL CERTIFICATE
No. **TCA041222WS**

This is to certify that RINA Services S.p.A., authorised by Transport Canada as Recognised Organisation (Registration No. 161159) on 23rd December 2014, did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the requirements of the standard under Reference Standards

Description	**IMMERSION SUITS**
Type	**HYF-N2-R**
Applicant	**JIANGSU HUAYAN MARINE EQUIPMENT CO.,LTD NO.8 HUANGJINTANG WEST ROAD, ECONOMIC DEVELOPMENT ZONE DANYANG CITY, JIANGSU PROVINCE CHINA**
Manufacturer *Place of manufacture*	**JIANGSU HUAYAN MARINE EQUIPMENT CO.,LTD NO.8 HUANGJINTANG WEST ROAD, ECONOMIC DEVELOPMENT ZONE DANYANG CITY, JIANGSU PROVINCE CHINA**
Reference standards	**IMO Res. MSC.81(70), as amended.**
Reference documents	**SOLAS 74 Reg.III/7, SOLAS 74 Reg.III/22, SOLAS 74 Reg.III/32, SOLAS 74 Reg.III/34, IMO Res.MSC.36(63)-(1994 HSC Code) 8, IMO Res.MSC.48(66)-(LSA Code) I, IMO Res.MSC.48(66)-(LSA Code) II, IMO Res.MSC.97(73)-(2000 HSC Code) 8, IMO MSC/Circ.1046.**

Issued in **Shanghai** on **March 27, 2022**. *This Certificate is valid until* **March 26, 2027**

Zhang Hai Wen

RINA Services S.p.A.
Hai Wen Zhang

This certificate consists of this page and 1 enclosure

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HYF-N2-R

Product Description

Immersion Suit (Type: HYF-N2-R) is an insulated Immersion Suits, designed to be worn without a lifejacket.

HYF-N2-R, Body Color is Red, with Conjoined Type Gloves, and it is manufactured in three sizes:
- XL size: Max. height 2.05 meter;
- L size: Max. height 1.90 meter;
- M size: Max. height: 1.70 meter.

The suit covers the whole body (feet and hands included) except the face.

Material and Components

Item	Model	Type	Manufacturer
Fabric Buoyancy Material	Neoprene	-	Changzhou Chengjiali Polymer Materials Co., Ltd; DongGuan Nam Liong Rubber Products Co., Ltd
Watertight Zipper Closure	-	65 cm TPU	Wuxi Hailong Airtight Technology Co., Ltd; Jiaxing Kinsealed Zipper Co., Ltd
Sewing Thread	Polyester High Strength Yarn	190D	Danyang Shiqiang Knitting Technology Co., Ltd; Dangyang Jianying Thread Factory
Light	-	YDG1C, YDL12, etc	Jiangsu Huayan Marine Equipment Co., Ltd
Retro-reflective Tape	5 cm	-	TISS; 3M Daoming Optics & Chemical Co., Ltd

Design Assessment

Insulated immersion suits designed to be worn without a lifejacket with additional lifting loop in compliance with IMO Res.MSC.323(89).

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

Production tests shall be conducted for each suit in accordance with IMO Res. MSC.81(70), part 2.

Reference Documents

- Instruction Manual, edit by Jiangsu Huayan Marine Equipment Co., Ltd and filed by RINA with No.: SHFP-11709;
- Technical Drawings, edit by Jiangsu Huayan Marine Equipment Co., Ltd, approved by RINA with No.: SHFP-11704;
- Component List, edit by Jiangsu Huayan Marine Equipment Co., Ltd, approved by RINA with No.: SHFP-11705;
- Technical Standard, edit by Jiangsu Huayan Marine Equipment Co., Ltd, approved by RINA with No.: SHFP-11706.

Test Report

The product has been tested in accordance with the Revised Recommendation on Testing of Life-saving appliances, IMO Res. MSC.81(70) Part 1, as amended by IMO Res. MSC.200(80), IMO Res. MSC.226(82) and IMO Res. MSC.323(89).
- Evaluation and Test Report (Type: HYF-N2-R) (Ref No.: 2017176), issued by Wuhan Testing Center of Marine Life-saving Appliances and filled by RINA with No.:SHFP-11707;
- Immersion Suit Routing Test Report (HYF-N2-R) (Ref No.: 20220224002), and filed by RINA with No.: SHFP-19747.

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Remarks

- The immersion suit shall be equipped with safety light, releasable buoyant line and suitable means to lift the wearer from the water, in compliance with MSC.207(81).
- Position indicating light to be approved in accordance with LSA Code Ch.2.2.3 and IMO Res.MSC.81(70), Part 1, Ch.10.3.
- Retro-reflective materials to be approved in accordance with IMO Res. 658(16).

Marking of Product

The product is to be indelibly marked with the name and address of the manufacturer, seizing information, date of manufacture or lot number, model designation and approval, file or certificate number. The labelling shall comply with the LSA Code (IMO Res. MSC.48(66)), item 1.2.2.9. and Transport Canada Ship Safety Bulletin 05/2014 and shall be both in English and French.

Transport Canada Approval

According to Interim Policy accepting SOLAS Immersion Suits issued by Transport Canada (Bulletin No. 05/2014, RDIMS No.: 9483968), the certificate may be expired when the Vessel Construction and Equipment Regulations are complete and in force.

Shanghai March 27, 2022

Zhang Hai Wen

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