



EC TYPE EXAMINATION (MODULE B)
CERTIFICATE No. MED080718WS/001

This is to certify that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Life-Saving appliances requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2018/773.

MED Item N°

MED/1.6b

Description

Immersion suits and anti-exposure suits designed to be worn WITHOUT a lifejacket: (b) immersion suit with inherent insulation

Type

HYF-N2-O, HYF-N2-R, HYF-N2-Y, HYF-N2-OG

Applicant

JIANGSU HUAYAN MARINE EQUIPMENT CO.,LTD
NO.8 HUANGJINTANG WEST ROAD, ECONOMIC DEVELOPMENT ZONE
DANYANG CITY, JIANGSU PROVINCE
CHINA

Testing standards

IMO Res. MSC 81(70) as amended

Reference standards

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
June 25, 2018

This Certificate is valid until
June 24, 2023

This Certificate consists of this sheet plus an attachment



HaiWen Zhang

RINA Services S.p.A.





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Manufacturer

JIANGSU HUAYAN MARINE EQUIPMENT CO.,LTD

Place of Manufacturer

NO.8 HUANGJINTANG WEST ROAD
ECONOMIC DEVELOPMENT ZONE
DANYANG CITY
JIANGSU PROVINCE
CHINA

Name & place of Authorised Representative

MRS. ANITA WESLING
KARL-LEGIEN-STR.2, 45356 ESSEN, GERMANY

Product Description

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

- HYF-N2-O, Body Color: Orange, with Conjoined Type Gloves;
- HYF-N2-R, Body Color: Red, with Conjoined Type Gloves;
- HYF-N2-Y, Body Color: Yellow, with Conjoined Type Gloves;
- HYF-N2-OG, Body Color: Orange, with Separation Type Gloves, with Built-in Latex 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; Danyang 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.

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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, HYF-N2-O &HYF-N2-Y) (Ref No.: 2017176), issued by Wuhan Testing Center of Marine Life-saving Appliances and filled by RINA with No.:SHFP-11707;
- Evaluation and Test Report (Type: HYF-N2-OG) (Ref No.: 2017177), issued by Wuhan Testing Center of Marine Life-saving Appliances and filled by RINA with No.:SHFP-11708.

Remarks

The immersion suit shall be equipped with safety light EC Type Approved, releasable buoyant line and suitable means to lift the wearer from the water, in compliance with MSC.207(81).

The immersion suit can be equipped with different position indicating lights and Retro-reflective materials EC type Approved in compliance with Directive 2014/90/EC as amended.



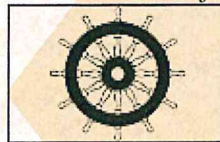
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The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production control phase module (D, E or F) of Annex II of the Directive is fully complied with a written inspection agreement with a Notified Body



XXXX/YYYY

"WHEELMARK FORMAT"

XXXX Notified Body number undertaking surveillance module

YYYY The year in which the mark is affixed

General conditions for the approval

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to be allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reappraised prior to it being placed on board vessels to which the amended regulations or standards apply.



Zhang Hai Wen
Hai Wen Zhang

