



**EC TYPE EXAMINATION (MODULE B)**  
**CERTIFICATE No. MED041222WS/003**

***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 Fire Protection requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2021/1158.

*MED Item N°*

**MED/3.3a**

*Description*

**Fire-fighter's outfit: protective clothing (close proximity clothing): (a) Protective non reflective clothing for fire fighting HYXF-C3**

*Type*

*Applicant*

**JIANGSU HUAYAN MARINE EQUIPMENT CO.,LTD**

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

*Testing standards*

**EN 469 (2005) including A1(2006) and AC(2006)**

*Reference standards*

**Reg. II-2/10 of SOLAS '74 as amended, IMO Res. MSC.36(63)-(1994 HSC Code) 7, IMO Res. MSC.97(73)-(2000 HSC Code) 7, IMO Res. MSC.98(73)-(FSS Code) 3.**

*Issued in* **SHANGHAI** *on*  
**March 27, 2022**

*This Certificate is valid until*  
**August 25, 2024**

*This Certificate consists of this sheet plus an attachment*

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**Hai Wen 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  
GERMANY

**Product Description**

Fire-fighter's outfit (Protective Clothing, Type: HYXF-C3), comprising jacket and trousers to be use only against radiant heat.

**Material Main Characteristics**

*Fabric Assembly:*

Type of Four Layer Flame-Retardant Compound Fabric, manufactured by SRO Group (China) Limited with detail as below:

- Outer Fabric: SXBD602, 93% m-aramid, 5% p-aramid, 2% anti-static, 210 g/m<sup>2</sup>
- Moisture Barrier: 65% aramid needlefelt, 20% PTFE, 15% PU, 105 g/m<sup>2</sup>
- Thermal Barrier: 90% m-aramid, 10% p-aramid, 150 g/m<sup>2</sup>
- Lining Fabric: XV343, 50% m-aramid, 50% FR Viscose, 120 g/m<sup>2</sup>

*Levels of Performance:*

Heat transfer- Flame: LEVEL Xf2;  
Heat transfer- Radiation: LEVEL Xr2;  
Resistance to water penetration (Moisture Barrier): LEVEL Y2;  
Resistance to water penetration (Seamed Specimen): LEVEL Y2;  
Water Vapour Resistance: LEVEL Z2.

**Reference Documents**

- Component List, issued by Jiangsu Huayan Marine Equipment Co., Ltd and approved by RINA with No. SHFP-10136;
- User's Manual, issued by Jiangsu Huayan Marine Equipment Co., Ltd and approved by RINA with No. SHFP-10137;
- HYXF-C3 Technical Drawing, issued by Jiangsu Huayan Marine Equipment Co., Ltd and approved by RINA with No. SHFP-10204;
- Labeling, issued by Jiangsu Huayan Marine Equipment Co., Ltd and approved by RINA with No. SHFP-10205;
- Technical Specification, issued by Jiangsu Huayan Marine Equipment Co., Ltd and approved by RINA with No. SHFP-10206.



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**Test Report**

- Confidential Report (Ref No.30/05668/1), issued by BTTG Testing & Certification Limited and filed by RINA with No. SHFP-10138;
- Test Report of the HYXF-C3 Protective Clothing Hardware, issued by Jiangsu Huayan Marine Equipment Co., Ltd and filed by RINA with No. SHFP-10139;
- Test Report of the HYXF-C3 Protective Clothing (Supplementary), issued by Jiangsu Huayan Marine Equipment Co., Ltd and filed by RINA with No. SHFP-10202;
- Firefighter Protective Clothing Routing Test Report (HYXF-C3) (Ref No.: 20220224004), and filed by RINA with No. SHFP-19750.

**Remarks**

The product or packing is to be marked with name of manufacturer and type designation according to EN 469, Par. 7 and the MED Mark of Conformity.

Additional information as specified in EN 340 shall be supplied by the manufacturer in the official language(s) of the state of destination.

The protective suit is not designed to be used for entering into fire.

Storage, handling, cleaning, use and restrictions for use to be in accordance with the manufacturer's instructions.

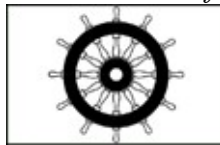
**Note**

Our review is based on Previous Certificate issued on March 20, 2017 (Ref No.MED011917WS). As declared by manufacturer, renewal of the initial certificate, without modification, and reissued accordingly.



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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*

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***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 reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.

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**Hai Wen Zhang**