



CERTIFICATE OF TYPE APPROVAL

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Takashina Life Preservers Co., Ltd
Address	1-1-30, Kuboyoshi, Naniwa-Ku Osaka, 556-0028 Japan
Product Type	IMMERSION SUITS
Product Description	Insulated non-buoyant immersion suit to be worn with an approved lifejacket - Type: "TK-007IN (Adult Universal)"
Specified Standards	IMO Resolution MSC.81(70), as amended by IMO Resolution MSC.200(80)

The attached Design Appraisal Document forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Date of issue 12 July 2011

Expiry date 11 July 2016

Certificate No. SAS S110081

Signed

Sheet No 1 of 4

Name

A. Prestigiacomo
Surveyor to Lloyd's Register EMEA
A Member of the Lloyd's Register Group

Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid certificate.

"Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract."

DESIGN APPRAISAL DOCUMENT

Date 12 July 2011	Quote this reference on all future communications LDSO/TA/SFS/AP
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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1150204

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

APPROVAL DOCUMENTATION

<u>Drawing No.</u>	<u>Issue Date</u>	<u>Drawing Title</u>
TK20060117-A01R1	06-07-2006	Bill of materials for TK-007IN (MED) (Outer)
TK20060117-A02R1	-	Bill of materials for TK-007IN (MED) (Inner)
TK011706-C01R0	17-01-2006	III.1 Finished Products (Outer) TK-007IN
TK011706-C02R0	17-01-2006	III.2 Finished Products (Inner) TK-007IN
TK012006-03R0	20-01-2006	Care and Maintenance TK-007IN
TK011706-C03R0	17-01-2006	III.3 Finished products dimensions (Inner)
TK011706-C04R0	17-01-2006	III.4 Finished products dimensions (Inner)
TK011706-C05R1	07-03-2006	III.5 Locations of the welded tapes (Outer shell)
TK-007IN	13-07-2011	Donning Instructions – Product TK-007IN

TEST REPORTS

Prototype Test Report as per Res.MSC.81(70) as amended by Res.MSC.200(80) for Takashina Insulated Immersion Suit Type " TK-007IN", dated 24 May 2006

CONDITIONS OF CERTIFICATION

1. The measured buoyancy of this immersion suit design is 79.3N.
2. This immersion suit has been satisfactorily tested and found suitable for adult persons within a height range of 1.40 – 2.10 metres (Universal Size).
3. The immersion suit is to be fitted with retro-reflective material in accordance with IMO Resolution A.658 (16), as it may be amended.
4. Each immersion suit and its packaging shall be permanently and clearly marked at least with: identification of the manufacturer and the model designation, the size and height range of persons suitable to wear the immersion suit, instructions that it must be worn in conjunction with an approved lifejacket, simple donning instructions and approval information.

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5. Each immersion suit shall be supplied with an explanatory leaflet containing instructions for care and maintenance of the immersion suit.
6. When required, an approved light and whistle meeting the requirements of LSA Code regulations II/2.2.3 and II/2.2.1.8, respectively, are to be fitted. The light or lights selected to be attached to the immersion suit shall be tested to the requirements of IMO Resolution MSC.81(70), I/10.3.3 to confirm the adequacy of their means of attachment.
7. The on board arrangements and installation of this product are not part of this design appraisal or certificate. All such arrangements are to be to the satisfaction of the Surveyors attending on board.
8. **Variants of the Approved design:** Where this immersion suit is proposed to be supplied to a purchaser's specification which requests omission of one or more of the facilities necessary to meet the SOLAS performance requirements referred to above, the purchaser is required to request the vessel's Flag State to consider issue of an Exemption Certificate for that ship to omit such facilities. Only when the exemption has been granted by the Flag State may a variant of the approved immersion suit be supplied under this certificate.
9. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply.
10. Production items are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D) or Product Quality Assurance (Module E) or Product Verification (Module F) of the Marine Equipment Directive.
11. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81(70), Part 2 and be recorded by the manufacturer in accordance with either the approved Production Quality Assurance system (Module D) or Product Quality Assurance (Module E) or witnessed by the Notified Body (LRV) as required by the Product Verification (Module F) of the Marine Equipment Directive. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration.
12. Each item, batch or lot of the equipment is to have the "Mark of Conformity" affixed and be issued with a "Declaration of Conformity".
13. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained.

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PLACE OF PRODUCTION

Shanghai Haishi Sports & Life Preservers Co. Ltd.
266 Rui Xiang Lu
Pudong New Area
Shanghai 201209
People's Republic of China



A. Prestigiacomo
Senior Surveyor
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038