

EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that :

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), specified as a "notified body" under the terms of The Merchant Shipping (Marine Equipment) Regulations S.I. 1999 No. 1957, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Life Saving Appliance requirements of Marine Equipment Directive (MED) 96/98/EC as modified by Commission Directives 98/85/EC, 2001/53/EC, 2002/75/EC, 2002/84/EC, 2008/67/EC and 2009/26/EC subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer Takashina Life Preservers Co., Ltd

Address 1-1-30 Kuboyoshi, Naniwa-Ku
Osaka, 556-0028
Japan

Annex A1 Item A.1/1.6 IMMERSION SUITS & ANTI-EXPOSURE SUITS CLASSIFIED AS LIFEJACKETS - INSULATED OR NON- INSULATED

Product Type INSULATED IMMERSION SUIT

Product Description Inherently buoyant insulated immersion suit with buoyant head support - Type: "TK-007SE" (Adult Universal & Oversize)

Specified Standard IMO Resolution MSC.81(70) as amended by resolution MSC 226(82)

The attached Design Appraisal Document (schedule) forms part of this certificate.

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

Date of issue 26 April 2010 Expiry date 25 April 2015

Certificate No. MED 1050091

Signed



Sheet No 1 of 4

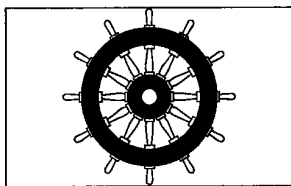
Name

L. Thomas

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

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 the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.



0038/yy

Subject to compliance with the conditions in the attached Design Appraisal Document (schedule), which forms part of this certificate, and those of Articles 10.1(i) and 11 of the Directive, the Manufacturer is allowed to affix the "Mark of Conformity" to the Product described herein.
yy Last two digits of year mark affixed.

This certificate is issued under the authority of the MCA.

"Lloyd's Register Verification is the business name of Lloyd's Register Verification Limited, a member of the Lloyd's Register Group.
Registration number 4929226.
Registered office 71 Fenchurch Street, London EC3M 4BS, England

*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 26 April 2010	Quote this reference on all future communications LDSS/TA/SFS/LT
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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No.MED 1050091

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.

EXAMINED DOCUMENTATION
TK-00TSE

<u>Drawing No.</u>	<u>Issue Date</u>	<u>Drawing Title</u>
TK020705-B01R6	22-02-10	ILL.1 Finished Products (Outer) TK-007SE
TK020705-B02R5	22-02-10	ILL.2 Finished Products (Inner) TK-007SE
TK020705-B03R6	22-02-10	ILL.3 Finished Products – Dimensions & Weight (Outer) TK-007SE
TK020705-B04R4	22-02-10	ILL.4 Finished Products – Dimensions (Inner) TK-007SE
TK020705-B05R6	22-02-10	ILL.5 Locations of the welded tapes (Outer shell) TK-007SE
TK121305-01	12-13-05	ILL.6 Finished Product (Outer)
TK041905-01R4	03-20-07	Donning instructions – Product TK-007S/SE/SE-G
TK041905-04R4	02-08-07	Donning instructions – Bag - Adult Universal TK-007SE
TK041905-05R4	02-08-07	Donning instructions – Bag - Adult Oversize TK-007SE
TK20050720-A01R2	02-07-07	TK-007SE MED Labels
TK20050609-A01R1	07-07-06	Bill of materials for model TK007SE

TK-007SE-G Variant

<u>Drawing No.</u>	<u>Issue Date</u>	<u>Drawing Title</u>
TK112206-A01R2	22-02-10	ILL.1A Finished Products (Outer) TK-007SE-G (without latex glove)
TK112206-B01R3	22-02-10	ILL.2A Finished Products (Inner) TK-007SE-G
TK112206-C01R1	22-02-10	ILL.3A Finished Products Dimensions & Weight (Outer) TK-007SE-G
TK112206-D01R2	22-02-10	ILL.4A Finished Products Dimensions (Inner) TK-007SE-G
TK112206-E01R0	11-22-06	ILL.6A Finished Products (Outer) TK-007SE-G (harness option)
TK112206-A01R2	22-02-10	ILL.5A Locations of the welded tapes (Outer Shell) TK-007SE-G
TK20070117-A01R0	17-01-07	Bill of materials for model TK007SE-G (without latex glove)
TK20070117-A02R0	17-01-07	Bill of materials for model TK007SE-G (without latex glove)
TK20070131-A01R1	02-07-07	MED Labels for model TK-007SE-G
TK012607-02R1	02-08-07	Donning instructions – Bag – Adult Oversize TK-007SE-G
TK012607-01R1	02-08-07	Donning instructions – Bag – Adult Universal TK-007SE-G

TEST REPORTS

Prototype Test Reports Nos. LPA/FSS/1-7TX9E dated 28 January 2005 and LPA/FSS/1-7VY0B dated 14 February 2005, witnessed by Lloyd's Register EMEA at Thelma AS laboratory in Trondheim (Norway).

Lloyd's Register Quality Assurance Report No. 8724931/0001 and Visit Report No. SHI1-80Z3P, dated 1 April 2005.

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Thelma AS Letter dated 16 February 2005 and Letter Ref. Adm-042.1/0068/05 dated 16 March 2005.

TÜV Test Report No. 21118550 001 dated 18 March 2005.

LR Donning Test Report Certificate No. KOB051035/1 dated 21 November 2005

CONDITIONS OF CERTIFICATION

1. The measured buoyancy of this immersion suit design is 207.5 N.
2. This immersion suit has been satisfactorily tested and found suitable for adult persons within a height range of 1.40 – 1.95 metres (Universal Size) and 1.80 – 2.10 metres (Oversize).
3. This immersion suit has been satisfactorily tested and found suitable for adult persons within a weight range of 50-120 kg (Universal Size) and > 90kg (Oversize).
4. The immersion suit is to be fitted with retro-reflective material in accordance with IMO Resolution A.658 (16), as it may be amended.
5. 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, simple donning instructions and approval information.
6. Each immersion suit shall be supplied with an explanatory leaflet containing instructions for care and maintenance of the immersion suit. When carrying out the inspection of immersion suits as required by SOLAS regulation III/20.7.2 consideration should be given to IMO MSC/Circ.1047 on **Guidelines for Monthly Shipboard Inspection of Immersion Suits and Anti-exposure Suits by the Ship's Crew**.
7. An approved light and whistle meeting the requirements of LSA Code regulations II/2.2.3 and II/ 2.2.1.14, 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.
8. 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.
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"

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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.

PLACE OF PRODUCTION

Shanghai Haishi Sports & Life Preservers Co., Ltd.
266 Ruixiang Lu
Pudong, Shanghai 201209
People's Republic of China



L. Thomas
Surveyor
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038