Lloyd's Register

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	The Coleman Company, Inc.
Address	3600 N Hydraulic Wichita KS 67219 United States of America (USA)
Product Type	**IMMERSION SUITS – INSULATED**
Product Description	Insulated immersion suit with manually inflatable collar - Type: **"I590"**
Specified Standards	IMO Resolution MSC.81 (70), Part 1, as amended.

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 6 February 2019 Expiry date 5 February 2024

Certificate No. SAS S190034 Signed

Sheet No 1 of 4 Name L. Thomas
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 Group Limited, 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'. Lloyd's Register 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 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.

Lloyd's Register EMEA (Southampton)
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Document number
SAS S190034

Issue number
1

DESIGN APPRAISAL DOCUMENT

Date	Quote this reference on all future communications
17 May 2019	UKITSO/LSA/TA/LT/WP34961612

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S190034

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

This Certificate is a renewal of Certificate No SAS S140039

EXAMINED DOCUMENTATION

Drawing No.	Rev	Date	Title
MEDs01ill01	-	05.09.2007	I590 General Arrangement-size Adult Universal, Front View
MEDs01ill02	-	05.09.2007	I590 General Arrangement-side Adult Universal, Back View
MEDs01ill03	-	05.09.2007	I590 General Arrangement- Other sizes, Front View
MEDs01ill04	-	24.07.2012	I590 General Arrangement Front Universal Size
MEDs01ill06	-	24.07.2012	I590 General Arrangement Front Other Size
MEDs01ill07	-	24.04.2014	I590 General Arrangement Front Universal Size Alt Zipper
MEDs01ill08	-	24.04.2014	I590 General Arrangement Front Other Size Alt Zipper
Mq545v01s004ill28	-	27.07.2010	Immersion Suit Donning Instruction Sheet (with 4 sizes)

TEST REPORTS

UL Inc File MQ545 V1 S3, Project 86RT5274 dated 25.02.1987

UL Inc File MQ545 V1 S4, Project 06RT02017, dated 27.08.2007

UL Inc MQ 545 V1, S3 T1_1 to T46_1 dated 25.02.1987

UL Inc MQ 545 V1, S1 TR15_4 dated 25.02.1987

UL Inc MQ 545 V1, S1 TR15_5 dated 14.12.1985

UL Inc MQ 545 V1, S1 TR15_13 to TR15_14 dated 14.02.1985

LR Newcastle fax dated 7 January 1998.

Underwriters Laboratories Inc's File MQ545, revision date 04.12.2012

CONDITIONS OF CERTIFICATION

1. This product is available in following range of sizes:

	Max height	Max weight
Child universal	150cm	50 kg
Adult small	173cm	113 kg
Adult universal	191cm	150 kg
Adult oversize	206cm	170 kg

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2. The immersion suit is to be fitted with retro-reflective material in accordance with IMO Resolution A.658 (16)
3. Instruction for use shall be provided with each Immersion Suits as prescribed by SOLAS Regulation III/35 one or more additional copies shall be provided for inclusion in the Vessel's Training Manual
4. As prescribed by SOLAS Regulation III/36 and where applicable, Immersion Suit shall be maintained as prescribed by manufacturer's instructions
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 weight 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 immersions are 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 Regulation 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. Productions items are to be manufactured in accordance with a quality control system which shall be maintained to ensure compliance with SOLAS Regulation III/5
11. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2 and each item, batch, or lot be delivered with an LR Certificate of SOLAS Production Testing issued by the attending LR Surveyors following their witness of the tests. 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. 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

Sheico (Cambodia) Co.,Ltd.
Manhattan (Svay Rieng) Spec Econ ZN
Bavet Commune, National Rd #1
Chantrea District
Svay Rieng
Cambodia



Lijo Thomas
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).