



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 67226 United States of America (USA)			
Product Type	IMMERSION SUITS - INSULATED			
Product Description	Insulated immersion suit without head collar to be worn together with an approved lifejacket – Type: <b>"I590C</b> "			
Specified Standards	IMO Resolution MSC.81 (70), Part 1, as amended.			
The attached Design Appraisal Document forms part of this certificate.				

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 S190038	Signed	Lang gotte take The me the
Sheet No	1 of 1	Name	L. Thomas Surveyor to Lloyd's Register EMEA
Note:			A Member of the Lloyd's Register Group

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 S190038

Issue number 1

### DESIGN APPRAISAL DOCUMENT

Date 17 May 2019 Quote this reference on all future communications UKITSO140/LSA/TA/LT/WP34961612

### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S190038

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 S140040

#### **EXAMIED DOCUMENTATION**

Drawing No.	Rev	Date	Title
MEDs02ill04	-	24.04.2014	I590C (Type C) General Arrangement-size Adult Universal, Front View
MEDs02ill02	-	24.04.2014	I590C (Type C) General Arrangement-size Adult Universal, Back View
MEDs02ill06	-	24.04.2014	I590C (Type C) General Arrangement Front Alt Zipper
MEDs02ill07	-	24.04.2014	I590C (Type C) General Arrangement Front Other Zippers
MEDs02ill05	-	13.09.2010	I590C (Type C) General Arrangement – Other sizes, Front View
Mq545v01s004ill28	-	23.07.2010	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**

This product is available in following range of sizes 1.

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

The immersion suit is to be fitted with retro-reflective material in accordance with IMO Resolution 2. A.658 (16)

Instruction for use shall be provided with each Immersion Suits as prescribed by SOLAS Regulation 3. 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



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- 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, approval information and test "to be worn in conjunction with a compatible lifejacket"
- 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. When required, 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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### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S190038

### PLACE OF PRODUCTION

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

the mark

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).