

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 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: "1590C"

Specified Standard The LSA Code, Regulations I/1.2 and II/2.3.1, II/2.3.2 as amended by resolution MSC 207(81).
IMO Resolution MSC.81(70), Part 1, as amended by resolution MSC 226(82)

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 1 September 2010

Expiry date 5 February 2014

Certificate No. SAS S090044/M1

Signed



**Lloyd's
Register**

North America Operations Office
Houston

LLOYD'S REGISTER
NORTH AMERICA, INC.

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, 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 1 September 2010	Quote this reference on all future communications LDSO/TA/SFS/LT
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S090044/M1

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.

EXAMINED DOCUMENTATION

<u>Drawing No.</u>	<u>Rev</u>	<u>Date</u>	<u>Title</u>
MEDs02i1l04	-	13.09.2010	1590C (Type C) General Arrangement-size Adult Universal, Front View
MEDs02i1l02	-	05.09.2007	1590C (Type C) General Arrangement-size Adult Universal, Back View
MEDs02i1l05	-	13.09.2010	1590C (Type C) General Arrangement - Other sizes, Front View
Mq545v01s004i1l28	-	08.05.2007	Immersion Suit Donning Instruction Sheet (with 4 sizes)

TEST REPORTS

Underwriters Laboratories Inc's File MQ545, revision date 15.11.2007
 Underwriters Laboratories Inc's File MQ545 Project 06RT02017, dated 27.08.2007
 Stearns Inc. File MQ545, Vol. 1 Sec. 3 Pages T1-1 to T11-1 dated 25 February 1987.
 Stearns Inc. File MQ545, Vol. 1 Sec. 1 Page T15-4 dated 26 February 1987.
 Stearns Inc. File MQ545, Vol. 1 Sec. 1 Page T15-5 dated 14 December 1985.
 Stearns Inc. File MQ545, Vol. 1 Sec. 1 Pages T15-13 to T15-14 dated 14 February 1985.
 Stearns Inc. File MQ545, Vol. 1 Sec. 3 Pages T26-1 to T26-13 dated 30 May 1995.
 LR Newcastle fax dated 7 January 1998.

CONDITIONS OF CERTIFICATION

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

	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

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2. 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, approval information and text *"To be worn in conjunction with a compatible lifejacket"*.
3. Donning and maintenance instructions are to be provided and shown as required by the applicable regulations taking into consideration the IMO guidance on wearing immersion suits in totally enclosed lifeboats as per MSC.1 Cir.1278.
4. 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.
5. 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.
7. 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.
8. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure compliance with SOLAS Regulation III/5.
9. 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.
10. 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 S090044/M1**PLACES OF PRODUCTION**

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

Lun Tou Yue Jue Chang
Hai Zhu Qu Lun Tou Chuen
Lun Tou Che Zhan Xi, Yi Hang Jiu Hao
Guangchou Shi
Guangzhou
Guangdong
People's Republic of China

Sheico (Thailand) Co. Ltd.
88/8 Moo 4 T Marby Angporn
A Pluakdang
Rayong 21140
Thailand



L. Thomas
Surveyor
Statutory Fire & Safety
London Design Support Office
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).