

COPY



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	Electric Fuel Limited
Address	Western Industrial Park P.O. Box 641 Bet Shemesh, 99000 Israel
Product Type	PERSONAL LIFE-SAVING APPLIANCE LIGHT
Product Description	Lifejacket automatically operated fixed light - Type: "WAB-MX8"
Specified Standards	SOLAS 74, as amended, Regulation III/4, 34, 35 and 36. The LSA Code, Regulations I/1.2 and II/2.2. IMO Resolution MSC.81(70) Part 1

The attached Design Appraisal Document forms part of this certificate.

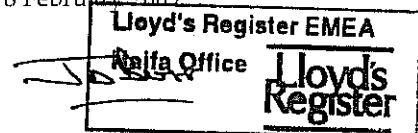
This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Date of issue 9 February 2004

Expiry date 8 February 2009

Certificate No. SAS S040022

Signed



Sheet No 1 of 3

Name

Capt. J. D. Burr
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.

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DESIGN APPRAISAL DOCUMENT

Date 9 February 2004	Quote this reference on all future communications MSG/STAT/TA/LSA/PDJ
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S040022

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.

APPROVAL DOCUMENTATION

<u>Drawing No.</u>	<u>Rev.</u>	<u>Dated</u>	<u>Title</u>	<u>Approved</u>	
				<u>Status</u>	<u>Date</u>
PL 100350	0	17.03.99	Lif jacket Light	A	13 Jun 2000
DW 100350	0	17.03.99	Assembly drawing	A	13 Jun 2000
DW 100351	A	17.07.03	Cathode C.C.	N	5 Feb 2004
DW 100352	F	21.09.03	Electrodes Housing Printed	A	5 Feb 2004
DW 100353	A	14.02.99	Electrodes Housing	N	12 Jun 2000
DW 100354	A	17.03.99	Lens Assembly	N	12 Jun 2000
DW 100355	B	01.05.01	Base Assembly	N	5 Feb 2004
DW 100356	A	23.03.99	Marine Lamp + Wire Assembly	N	12 Jun 2000
DW 100357	B	18.05.03	Wire (marine)	N	5 Feb 2004
DW 100359	C	20.05.01	Marine Lens Base	N	5 Feb 2004
DW 100360	0	14.02.99	Bottom Cover	N	12 Jun 2000
DW 100361	A	04.02.99	Marine Lens	N	12 Jun 2000
DW 100362	A	17.03.99	Marine Anodes Assembly	N	12 Jun 2000
DW 100363	0	04.02.99	Marine Anode	N	12 Jun 2000
DW 100364	0	14.02.99	Brass Connector	N	12 Jun 2000
DW 100365	0	17.03.99	Marine Cathode Assembly	N	12 Jun 2000
DW 100366	A	14.02.99	Marine Handle	N	12 Jun 2000
DW 100367	0	14.02.99	Case Cover	N	12 Jun 2000
DW 100369	0	14.11.98	Base	N	12 Jun 2000
DW 100370	0	14.02.99	Short Wire	N	12 Jun 2000
PL 100372	0	17.03.99	Electric Wires + Electrodes Ass.	N	12 Jun 2000
DW 100372	0	17.03.99	Assembly Drawing	N	12 Jun 2000
SP 100373	0	11.02.99	Lightbulb, MX8	N	12 Jun 2000
SP 100374	2	16.11.03	WAB-MX8 Instruction Manual (pg4 added)	A	5 Feb 2004
SL 100376	0	23.02.99	Splitter	N	12 Jun 2000
SL 100377	0	23.02.99	Marine Lens Base - Salvage	N	12 Jun 2000
DW 100360	1	20.05.01	Bottom Cover Salvage	N	5 Feb 2004
DW 100398	0	15.05.01	Lif jacket light - general drawing	N	5 Feb 2004*
DW 100213	1	27.03.00	Clip base	N	5 Feb 2004*
DW 100214	3	02.05.00	Clip bracket	N	5 Feb 2004*

* Details of 100372

TEST REPORTS

Intermodal Material and Nautical/Nuclear Analysis (IMANNA) Laboratory Inc, Florida, USA, Test Report No. 14494-1 dated 10 December 1998 and 14647-1 dated 14 May 1999.
Intermodal Material and Nautical



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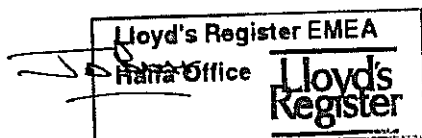
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CONDITIONS OF CERTIFICATION

1. Light assembly is to be attached to lifejackets either by sewing or tie straps.
2. If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.
3. 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.
4. 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.
5. 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 is to 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.



Capt. J. D. Bull
 Principal Surveyor
 Dry Cargo Ship Section
 Marine Support Group
 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).