



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	Drew Marine Signal & Safety Spain SL
Address	Camino Mendi S/N 31191 Esquiroz de Galar Navarra Spain
Product Type	PYROTECHNICS
Product Description	Buoyant smoke signal - Type: "KEL"
Specified Standards	IMO Resolution MSC.81 (70), Part 1 as amended by MSC.226 (82) and MSC.323 (89)

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 23 January 2016

Expiry date 22 January 2021

Certificate No. SAS S160027

Signed

Sheet No 1 of 3

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.



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DESIGN APPRAISAL DOCUMENT

Date 4 March 2016	Quote this reference on all future communications MTES/SFS/TA/LT/WP24831919
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S160027

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 DOCUMENTS

<u>Title</u>	<u>Document No</u>	<u>Date</u>
General Arrangement	51	Nov 09
Screw Cap	51/6	Nov 09
Lid	51/2	Nov 09
Firing Ball	51/11	Nov 09
Nut	51/8	Nov 09

TEST REPORTS

- Pirotecnia Oroquieta, S.L. 60 page booklet including covers, detailing construction, materials, test equipment and calibrations, test methods and test reports with photographs. Approval date 15 October 1996.
- Survey Report No. BBO 600305/2 of 21 June 1996.
- Test Report of Buoyant Smoke Signal "KEL", document No IC-10.2-2 Rev 1, dated September 2012 as witnessed by a LR Surveyor.

CONDITIONS OF CERTIFICATION

1. Each buoyant smoke signal is to be marked with the approved clear and precise instructions along with the date of manufacture and expiry date as required by LSA Code, Chapter 3.3.3.3 and with the information required by LSA Code, regulations 1.2.2.9
2. The expiration date not to exceed 48 months after the month of manufacture
3. The stowage of this equipment is not part of this Design Appraisal or certificate. All such arrangements are to be to the satisfaction of the surveyors attending on board
4. 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
5. 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
6. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2, Paragraph 4, 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



Lloyd's
Register

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7. 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

Note: This is renewal of certificate SAS S110051/M1

PLACE OF PRODUCTION

Drew Marine Signal & Safety Spain SL
Camino Mendi S/N
31191 Esquiroz de Galar
Navarra
Spain


Fire & Safety: MTES
Lloyd's Register EMEA

Lijo Thomas
Senior Specialist
Statutory Fire & Safety
Marine Technology and Engineering Services
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).