



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	Leaffield Marine Ltd
Address	Unit 2 Atworth Business Park Atworth Melksham, SN12 8SB United Kingdom (UK)
Product Type	A10B Pressure Relief Valve, Pressure Range 1 to 4 psi A10B Non-return/Transfer Valve, Pressure Range 0.25 to 4 psi B10 Pressure Relief Valve, Pressure range 1 to 4 psi B10 Non-return/Transfer Valve, Pressure range 0.25 to 4 psi
Product Description	Pressure Relief Valve covering the pressure relief range 1 to 4 psi - Type: "B10PG-XXX" and non-plug Type "B10ST-XXX" Type: "A10BPG-XXX" and non-plug Type "A10BST-XXX" Non Return/Transfer Valve covering the pressure range 0.25 to 4 psi - Type: "B10PG-XXX", non-plug type "B10ST-XXX" and non-plug type "A10BST-XXX"
Specified Standards	IMO Resolution MSC.81 (70), Part 1 as amended ISO 15738:2002 and ISO 9650:2005.

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 16 March 2014

Expiry date 17 March 2019

Certificate No. SAS S140023

Signed

Sheet No 1 of 3

Name

N. Ramos
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.



Page	2 of 3
Document number	SAS S140023
Issue number	1

DESIGN APPRAISAL DOCUMENT

Date	Quote this reference on all future communications
14 March 2014	MTES/SFS/TA/NR/WP17247538

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S140023

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>Title:</u>	<u>Reference:</u>	<u>Rev.:</u>	<u>Date:</u>
B10 Valve Section Chart	0802003	3	19/03/12
Instruction Sheet for the B10 Pressure Relief Valve	0901003	1	19/02/09
A10B Valve Standard Type Selection Chart	1110002	1	24/11/11
A10B valve Low Profile Type Selection Chart	1110003	1	24/11/11
A10B Valve Plug Type Selection Chart	1110005	1	24/11/11
Instruction Sheet for Pressure Relief Valve A10B Standard	1208001	1	2012
Instruction Sheet for Pressure Relief Valve A10B Low Profile	1208002	1	2012
Manufacturing Order	B10PG-400	2	18/11/08
Manufacturing Order	B10PG-110	2	18/11/08
Manufacturing Order	B10PG-025	2	03/12/08

Test procedure for statutory approval of Pressure Relief Valve and Non-Return/Transfer Valve Assemblies, Type B10 Series, Report No M-07-TP-1B10 Rev. 02 dated November 2008.

Test procedure for statutory approval of Leaffield Marine Ltd Type A10B-Series Pressure Relief Valves, Report No M-07-TP-1A10B Rev. 02 dated January 2012.

This Certificate is the renewal of Certificate No SAS 090082/M1.

TEST REPORTS

<u>Report Title:</u>	<u>Report No.:</u>	<u>Date:</u>
Test Report for statutory approval of B10 Pressure Relief and Non Return/Transfer Valve Assemblies, Type B10 Series witnessed by Lloyd's Register Surveyor.	M-07-TR-1B10, Rev. 01	Dec./08
Report of Statutory Approval Testing "M-07-TR-1A10B" Rev. 01 of Leaffield Marine Ltd. Type A10B-Series Pressure Relief Valves and B10 Diaphragm 18670, dated 02.02.2012 as witnessed by Lloyd's Register Surveyor.	M-07-TR-1A10B, Rev. 01	02.02.2012

CONDITIONS OF CERTIFICATION

1. 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.
2. 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.



Page	3 of 3
Document number	SAS S140023
Issue number	1

DESIGN APPRAISAL DOCUMENT

Date	Quote this reference on all future communications
14 March 2014	MTES/SFS/TA/NR/WP17247538

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S140023

- 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.
- 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 change taking place. This Certificate will require to be updated for Approval to be maintained.

NOTE: Valves suitable for inflatable liferafts for small crafts used for leisure activities are tested to ensure compliance with BS ISO 9650-1:2005, 9650-2:2005.

PLACE OF PRODUCTION

Leaffield Marine Ltd.
Unit 2, Atworth Business Park
Atworth
Melksham, SN12 8SB
United Kingdom (UK)

N. Ramos
Assistant Specialist
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).