



## 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.

<b>Manufacturer</b>	<b>Leaffield Marine Limited</b>
<b>Address</b>	9 Atworth Business Park, Bath Road, Atworth, Wiltshire, SN12 8SB, United Kingdom
<b>Type</b>	HOSE ASSEMBLY FOR USE IN GAS INFLATION SYSTEM
<b>Description</b>	A range of flexible hoses for use in GAS Inflation Systems Marine Inflatable Life Saving Appliance. Defined on Drawings PD11541, PD11555 and PD11586
<b>Trade Name</b>	"PD11541, PD11555 and PD11586"
<b>Specified Standard</b>	ISO 15738:2019 ISO 9650-1:2022 ISO 9650-3:2009

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 EMEA of any modification or changes to the equipment in order to obtain a valid 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.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

**Lijo Thomas**

Fire & Safety - Senior Surveyor to Lloyd's Register EMEA  
A member of the Lloyd's Register group

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**DESIGN APPRAISAL DOCUMENT****ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23364192SS-03**

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 an Amendment of Certificate Number LR23364192SS-02

**APPROVAL DOCUMENTATION**

<b><u>Drawing No.</u></b>	<b><u>Rev.</u></b>	<b><u>Date</u></b>	<b><u>Title or Description</u></b>
11401	01a	05/01/15	Hose Assemblies (90° Quick Connect to male Saginaw) (Plated Steel Fittings)
11514	01a	14/01/15	Hose Assemblies (90° Quick Connect 3/8" BSPF Flat Face) (Plated Steel Fittings)
11524	01c	20/01/15	Hose Assemblies (90° Quick Connect to Male Saginaw) (Stainless Steel Fittings)
11526	01a	30/01/15	Hose Assemblies (90° Quick Connect 3/8" BSPF Flat Face) (Stainless Steel Fittings)
11527	01a	09/01/17	Hose Assemblies (1/4" BSP Female Con. to 1/4" BSP Male) (Stainless Steel Fittings)
11529	01a	02/02/15	Hose Assemblies (1/4" BSPF Con. to 1/4" BSPF Con.) (Stainless Steel Fittings)
11532	01a	03/02/15	Hose Assemblies (1/4" BSPF Con. to 3/8" BSPF Flat Face) (Stainless Steel Fittings)
11534	01b	26/01/15	Hose Assemblies (3/8" BSPF Flat Face to 3/8" BSPF Flat Face 90° Swept Elbow) (Stainless Steel Fittings)
11535	01b	09/01/17	Hose Assemblies (1/4" BSPM to 3/8" BSPF Flat Face) (Stainless Steel Fittings)
11543	01b	09/01/17	Hose Assemblies (3/8" BSPF Flat Face Swept 90° Elbow to 3/8" BSPF Flat Face Swept 90° Elbow) (Stainless Steel Fittings)
11544	01a	17/02/15	Hose Assemblies (1/4" BSPF Con. to 1/4" BSPF Con.) (Plated Steel Fittings)
11546	01a	18/02/15	Hose Assemblies (90° Quick Connect to 1/4" BSPF Conical) (Stainless Steel Fittings)
11549	01a	19/02/15	Hose Assemblies (90° Quick Connect to 90° Quick Connect - opposed fittings) (Stainless Steel Fittings)
11550	01a	14/04/15	Hose Assemblies (3/8" BSPF Flat Face to 3/8" BSPF Flat Face) (Plated Steel Fittings)
11551	01a	20/02/15	Hose Assemblies (3/8" BSPF Flat Face to DKO-L M18 x 1.5) (Stainless Steel Fittings)
11552	01a	10/02/15	Hose Assemblies (3/8" BSPF Flat Face to 14mm Banjo) (Stainless Steel Fittings)
11553	01a	14/04/15	Hose Assemblies (3/8" BSPF Conical to 1/4" BSPM Conical) (Stainless Steel Fittings)
11554	01a	04/03/15	Hose Assemblies (3/8" BSPF Flat Face to 3/8" BSPF Flat Face) (Stainless Steel Fittings)
18976	01c	26/06/19	Hose Specification Leaffield Polar 1/4" Maximum working pressure 225 bar
19018	02	01/06/22	Hose Specification Leaffield Polar 3/8" Maximum working pressure 180 bar
PD11541	01d	12/03/26	Hose Assemblies 1/4 Bore EN857-1SC Maximum working pressure 225 bar
PD11555	01e	09/03/26	Hose Assemblies 3/8" Bore EN857-1SC Maximum working pressure 180 bar
PD11586	01c	17/03/26	Hose assemblies 3/8" Bore Hyperline PTFE Maximum working pressure 230 bar

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<b><u>Drawing No.</u></b>	<b><u>Rev.</u></b>	<b><u>Date</u></b>	<b><u>Title or Description</u></b>
11688	01	27/07/23	Hose Assemblies (3/8" BSPF Flat Face to 14mm BANJO) (Plated Steel Fittings) (3/8" Hose)
19640	01	27/07/23	Fitting Assembly 3/8" Hose – M16 x 1.5 Female Conical Plated Steel
11689	01	27/07/23	Hose Assemblies (3/8" BSPF Flat Face to M16 x 1.5 Female Conical) (Plated Steel Fittings) (3/8" Hose)
19641	01	27/07/23	Insert 3/8" Hose – 14mm BANJO Plated Steel

M-07-UM-1HOSE GENERAL USER MANUAL Rev 3, FOR LEAFIELD POLAR GAS INFLATION SYSTEM HOSE as defined by Drawing PD11541, dated 26/08/2014.

Procedure for the statutory Approval Testing of 3/8" Hose Assemblies for use in GAS Inflation System M-07-TP-3HOSE Rev 01a, dated 07/04/2014.

Procedure for the statutory Approval Testing of 3/8" PTFE Hyperline Hose, 1/4" Polyhose, stainless steel DKOL and CO2 fittings, M-07-TP-6HOSE Rev 02, dated 02/11/2016.

Procedure for the statutory Approval Testing of Quick Coupling Assemblies series 525 and ISO7241 to ISO 15738 for use in gas inflation systems M-07-TP-8HOSE Rev 01, dated 08/05/2017.

Procedure on the Type Approval Testing of 3/8" Hose Assemblies for use in Gas Inflation Systems (Polyhose 3/8" Hose Approval Procedure) M-07-TP-11HOSE Rev 1, 07/06/2023.

Procedure on the Type Approval Testing of 1/4" Ferrule Approval for use on Hose assemblies within Gas Inflation Systems (CIDAT 1/4" Ferrule Approval) M-07-TP-12HOSE Rev 1, 18/07/2025.

**TEST REPORTS**

<b><u>Report Title</u></b>	<b><u>Report No.</u></b>	<b><u>Date</u></b>
Report on the Statutory Approval Testing of 3/8" Hose Assemblies for use in GAS Inflation System	M-07-TR-5HOSE Rev 01	01/05/14
Report on the Statutory Approval Testing of 3/8" PTFE Hyperline Hose, 1/4" Polyhose, stainless steel DKOL and CO <sub>2</sub> fittings Approval to ISO15738 as witnessed by LR Surveyor	M-07-TR-7HOSE Rev 01	26/10/17
Test for the approval of Quick Coupling Assemblies series 525 and ISO7241 to ISO 15738 for use in gas inflation systems as witnessed by LR Surveyor	M-07-TR-9HOSE Rev 01	02/07/18
JCS Technology Limited Test Report of Salt Spray testing of Couplings	16342	13/03/17
Report on the Type Approval Testing of 3/8" Hose Assemblies for use in Gas Inflation Systems (Polyhose 3/8" Hose Approval Procedure)	M-07-TR-11HOSE Rev 01	14/08/23

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Report on the Type Approval Testing of 1/4" Ferrule Approval for use on Hose assemblies within Gas Inflation Systems (CIDAT 1/4" Ferrule Approval)	M-07-TR-12HOSE Rev 1	25/07/25
Report on the Type Approval Testing of Unleaded Hose Fittings & Ferrules for both 3/8" and 1/4" hose assemblies	M-07-TR-13HOSE Rev 01	23/03/26

**CONDITIONS OF CERTIFICATION**

1. The hoses are only to be used and maintained in accordance with the user Manual M-07-UM-1HOSE.
2. The hoses are only approved for used on inflatable Marine Lifesaving Appliances.
3. The hoses must be used within their specified pressure ratings.
4. The final determination of suitability of a system shall be made on the basis of testing the end product in which the hose is to be used in accordance with the appropriate IMO Resolution MSC.81 (70).
5. If the specified standards be amended during the validity of this certificate, this product type is to be re-approved prior testing supplied to vessels to which the amended standards apply.
6. 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.
7. Production items are to be manufactured in accordance with a quality control procedure and records kept as required by MSC.81(70) Part 2, Paragraph 1.2. Production tests are to be conducted to ensure compliance with SOLAS Chapter III Regulation 5. 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.
8. 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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**DESIGN APPRAISAL DOCUMENT****ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23364192SS-03****PLACE OF PRODUCTION**

Leaffield Marine Limited  
9 Atworth Business Park  
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Wiltshire, SN12 8SB  
United Kingdom (UK)

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)*

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