



## 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>CASTOLDI SRL</b>
<b>Address</b>	STRADA PROVINCIALE 114 10, ALBAIRATE, MILANO, 20080, Italy
<b>Type</b>	RIGID/INFLATED RESCUE BOATS
<b>Description</b>	Rescue Boat
<b>Trade Name</b>	Jet Tender 18 RB
<b>Specified Standard</b>	IMO Resolution MSC.81(70),Part 1 as amended. IMO MSC/Circ.1006 ISO 15372:2000

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.

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**Felipe Lisperguer**

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



**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No.LR23386526SS-01**

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.

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**APPROVAL DOCUMENTATION**

Jet Tender 18 RB Owner's Manual, Revision 3, Dated 01/08/23.

<b>Drawing Number</b>	<b>Drawing Title</b>	<b>Revision</b>	<b>Date</b>
PJD-3932	General Plan	3	17/04/23
PJD-3943	Lamination & structural plan	0	23/11/15
PJD-3944	Reinforce Plates	2	12/03/19
PJD-3945	Becketted Lines and high visibility patches	1	26/04/23
PJD-3951	Exhaust & sailing system	2	17/04/23
PJD-3952	Water draining system	0	31/03/16
PJD-3953	Fuel system layout	2	17/04/23
580-20218	Bridle System	1	30/11/21
590-20134	Emergency Steering Lever	0	24/11/13
592-21882	Inflating System hatch	0	10/05/23
PJD-3926	Lifting Points Layout	3	28/07/23
PJD-3936	Seating Arrangement	2	30/03/16
PJD-3937	Inflated Collar	2	06/05/23
PJD-3938	Inflatable Collar fixing layout	2	21/04/23
PJD-3939	Lights Layout	1	26/04/23
PJD3940	Towing Release System Layout	1	19/04/15
PJD-3941	Righting System	1	12/05/23
PJD-3942	Lifting Point Design	0	23/11/15



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**TEST REPORTS**

MSC/Circ.980 Evaluation and Test report, dated 5/22/29 June 23

Fire Retardant Test Report No. 2012CS012295/1 for Composite Panel, Dated 16/01/23

Fire Retardant Test Report No.102010.80/08.101 for polyester DION FR 850, Dated 10/09/08.

Test Report 0117/DC/REA/13, dated 26/02/13.

**CONDITIONS OF CERTIFICATION**

**1. Maximum Weights:**

Lightweight: 1348 kg  
Equipment: 50 kg  
Fuel Oil: 93 kg  
Complement weight: 495 kg  
Fully Equipped: 1491 kg  
Fully Laden weight: 1986 kg (with 6 persons)

**Dimensions (Overall):**

5.68 x 2.38 x 1.96 m (L x B x D)

**2. Certified Equipment Details:**

**Engine:**

Manufacturer: Yanmar  
Type: 4LV-230  
Power: 169 KW  
Maximum Bollard Pull: 4700 N

**Release Hook:**

Manufacturer: Eagle Product  
Type: APR356-CBH  
SWL: 3500 KG

**3. Proof Fabric for Inflated Collar:**

Pennel & Flipo ORCA 866 Polyester High Tenacity 1670 dtex – 1500 deniers



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4. **Laminate Material Details:**

Materials	Type	Manufacturer
Gelcoat	NORPOL NGA X2	Reichhold
Resin	DION FR 850-800	Reichhold
Bi-Axial	KEBX600	Selcom
Chopped Strand Mat	M501	Ahlstrom
	M123	Owens Corning

- The rescue boat is not self-righting but equipped with a manually initiated righting system.
- The rescue boat may be accepted for use on installations where this is acceptable to the Flag Administration of the installation on which the boat is installed.
- Maximum allowed speed of the rescue boat is 20 knots.
- The rescue boat is to be kept in a state of continuous readiness for launching in not more than 5 minutes when the vessel is at sea.
- Portable orange covers fitted with retro-reflective material are to be attached to the boat when used as a rescue boat to assist with detection at sea.
- The rescue boat is provided with 4-point suspension arrangement for launching from a ship at sea, the release gear used in conjunction with this boat shall be an approved release mechanism certified for a maximum safe working load of not less than the boat's maximum fully laden weight.
- The release gear does not form part of the of this design appraisal, but it is expected that the release gear used in conjunction with the rescue boat covered under this certificate is an approved type.
- The loose lifting gear is to be tested in accordance with the requirements of the IMO Resolution MSC.81(70), and chapter 12 of the LR Code for lifting appliances as appropriate, to the satisfaction of the attending Surveyor.
- The launch and recovery appliance is to be capable of raising the rescue boat from the water with its full complement of person and equipment at a rate of not less than 0.3m/s.
- The rescue boats launching appliance is to be provided with a foul weather recovery stop(s) of safe working load equivalent to at least the maximum laden weight of the boat where heavy blocks (> 7kg's) constitute a danger.
- It is to be demonstrated to the attending surveyor's satisfaction that the rescue boat can be raised/lowered without interference with the occupants of the boat.



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16. For compliance with SOLAS Regulation III/35 and III/36 fully detailed operations and maintenance manuals shall be supplied with each rescue boat.
17. Any inspection, maintenance, thorough examination, operational testing, overhaul, and repair shall be carried out according to the requirements of resolution MSC.402(96).
18. Inflated sections of the rescue boat are to be maintained and repaired at a service station authorized by the manufacturer which is also approved by Lloyd's Register or the Flag Administration.
19. The rescue boat is to be marked in block capitals of the Roman Alphabet with the number of persons it is approved to carry, and the name and port of registry of the ship to which it belongs as required by SOLAS and the LSA Code.
20. All the equipment installed on board should be of an approved type as required by SOLAS and the LSA Code.
21. Each rescue boat is to be marked with the information required by LSA Code, paragraph 1.2.2.9 and 4.4.1.2.
22. Alterations/modifications of the type approved rescue boat will invalidate the type approval certificate, which, in turn, will affect the validity of the related statutory certificate of the vessel on which the rescue boat is installed. In such cases, where the equipment requires alterations/modifications, these are only to be carried out with agreement/approval of the Flag State Administration of the vessel on which the rescue boat is installed, on an installation-by-installation basis.
23. **Installation on onboard:** the onboard arrangements and installation of the rescue boat are not part of this design appraisal or certificate. All such arrangements are to be to the satisfaction of the attending surveyor.
24. 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.
25. 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.
26. 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 Surveyor, following their witness of the tests. This does not preclude any further testing to the 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.
27. 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.
28. Any inspection, maintenance, thorough examination, operational testing, overhaul, and repair shall be carried out according to requirements of resolution MSC.402(96).



**DESIGN APPRAISAL DOCUMENT**

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Certificate No: LR23386526SS-01  
Issue Date: 25/10/2023  
Expiry Date: 24/10/2028  
Reference: UKITSO/LSA/FL/PRJ11100366366/WP46495947

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**PLACE OF PRODUCTION**

Casoldi S.r.L  
Strada Provinciale 114 n.10  
20080, Albairate,  
Italia

Felipe Lisperguer  
Fire & Safety Senior Specialist - Small Ships & In -Service  
Global Technical Support Office, Maritime Operations

**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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