

# 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 S.r.L.</b>
<b>Address</b>	STRADA PROVINCIALE 114, n.10, 20080,ALBAIRATE, Italia
<b>Type</b>	RIGID/INFLATED RESCUE BOATS
<b>Description</b>	6 person single fall davit launched rigid/inflated rescue boat with inboard engine
<b>Trade Name</b>	Jet Tender 19 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 LR21320523SS-DA 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.

**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR21320523SS**

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 Design Appraisal Document forms part of the Certificate LR21320523SS.

**EXAMINED DOCUMENTATION**

<b><u>Dwg No.</u></b>	<b><u>Rev</u></b>	<b><u>Date</u></b>	<b><u>Drawing Title</u></b>
PDJ-3876	Rev.4	05/08/2021	General Plan
PDJ-3880	Rev 4	12/08/2021	Supporting stripes and patches
PDJ-3871	Rev.3	06/05/2014	STRUCTURAL AND LAMINATION PLAN
PDJ-3882	Rev.1	12/12/2013	Towing system layout
PDJ-3883	Rev.1	11/12/2013	EXHAUST AND CONTROL SYSTEMS
PDJ-3889	Rev.2	28/05/2020	Self draining layout
PDJ-3875	Rev.1	12/12/2013	Lifting Points
PDJ-3890	Rev.1	11/12/2013	Seating arrangement
PDJ-3892	Rev.2	28/05/2020	Righting System
PDJ-3893	Rev.2	28/05/2020	Lifting stripes
PDJ-3894	Rev.2	28/05/2020	Fuel plant
PDJ-3895	Rev.2	28/05/2020	Assembly layout inflatable tube on superstructure and hull
PDJ-3896		18/11/2013	Inflatable tube chamber volume
PDJ-3897		20/11/2013	Lifting points design
PDJ-3899	1	16/08/2021	Lights layout
Jet Tender 19 RB Owner's manual, Rev 2 , dated 17/06/2020			

**TEST REPORTS**

Fire-retardant test for the fire retardant material used in the construction of the Rigid Rescue Boat material, dated 24.10.07 and witnessed by a Lloyd's Register Surveyor (MSC/Circ. 1006 Flame Resistance Test only).

Flame-resistant tests for the fire retardant material used in the construction of the Rigid Rescue Boat, performed as per MSC/Circ. 1006 at CSI Test laboratory, Report No0117/DC/REA/13, dated 26.02.2013.

MSC/Circ. 980 Evaluation and Test, Test report no. 313962 dated 11/03/2014 as witnessed by surveyor acceptable to Lloyd's Register.

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**CONDITIONS OF CERTIFICATION**

**1. Maximum weights :-**

Lightweight:	1362 kg
Equipment:	50 kg
Fuel Oil:	101 kg
Water:	50 kg
Fully equipped weight:	1563 kg
Complement weight:	495 kg
Fully laden weight:	2058 kg with 6 persons

**Dimensions (Overall) :-**

5.98 x 2.44 x 1.18 metres (L x B x D)

**2. Certified equipment details:**

**Engine :**

Manufacturer:	Volvo
Type:	D3-170 L
Power:	125 KW @4000 rpm
Maximum Bollard pull:	5950 N

**3. Proof Fabric for Inflatable Crafts:**

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

**4. Laminate Material Details:**

<b><u>Materials</u></b>	<b><u>Type</u></b>	<b><u>Manufacturer</u></b>
Gel coat	NORPOL NGA X2	Reichhold
Resin	DION® FR 850-800	Reichhold
Bi-axial	KEBX600	Selcom
Chopped strand mat	M501	Ahlstrom
	M123	OWENS CORNING

- This rescue boat is automatic-righting using manual initiation
- 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

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10. The rescue boat is provided with a four-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 (SWL) of not less than the boat's maximum fully laden weight
11. The release gear does not form a part 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
12. 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 attending surveyor's satisfaction
13. The launch and recovery appliance is to be capable of raising the rescue boat from the water with its full complement of persons and equipment at a rate of not less than 0.3m/s
14. The rescue boat's 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 (more than 7 Kgs) constitute a danger
15. 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
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. Inflated sections of the rescue boat are to be maintained and repaired at a service station authorised by the manufacturer which is also approved by Lloyd's Register or the Flag Administration
18. 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 LSA Code
19. All the equipment installed on board should be of an approved type as required by SOLAS and LSA Code
20. Each Rescue Boat is to be marked with the information required by LSA Code, Paragraph 1.2.2.9 and 4.4.1.2
21. Alteration/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
22. **Installation on board:** the on board 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 Surveyors attending on board
23. 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
24. 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

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25. 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
26. 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
27. Any inspection, maintenance, thorough examination, operational testing, overhaul and repair shall be carried out according to requirements of resolution MSC.402(96)

**PLACE OF PRODUCTION**

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



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).*