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Certificate N°:
12905/A1 BV
The attached Schedule forms part of the certificate
File Number : LSA 1626/34
Product Code : 6028I

CERTIFICATE OF TYPE APPROVAL

This is to certify that the product identified below was found to be in compliance with the relevant hereunder stated Regulations & standards

RESCUE BOATS

ZODIAC Rigid Inflated Rescue Boat Type H 561 - Non-SOLAS Rescue Boat.

MANUFACTURED BY:

ZODIAC HURRICANE TECHNOLOGIES Inc.

Delta - British Columbia - CANADA

SPECIFIED REGULATIONS & STANDARDS :

SOLAS 74 Convention, as amended by 2000 SOLAS Amendments, Reg. III/4 -LSA Code, 1.2 & 5.1 - IMO Resolution MSC. 81(70), Part 1, 7.1 to 7.3 - Bureau Veritas Rules for the Classification of Steel Ships.

The Approval is valid until : 25/03/2008

BUREAU VERITAS VANCOUVER

At Paris la Défense, on : 28/03/2003

J.BENOIT
For the Secretary

This Certificate remains valid until the date stated on, hereunder, unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory into service.

This Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested.

This Certificate is not valid without the stamp of the above mentioned by BUREAU VERITAS Inspection Center.

The manufacturer should notify BUREAU VERITAS of any modification or changes to the equipment in order to obtain a valid Certificate.

The latest published Regulations or Standards referred to, above, and the Marine Division General Conditions are applicable.



File Number : LSA 1626/34

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

ZODIAC rescue boat H561 is a Rigid hull Inflatable Rescue Boat capable to crew 6 persons.

It consists in a buoyancy tube divided in 5 compartments, separated by airtight bulkhead. Each compartment is fitted with one inflation valve and one safety relief valve.

The 560 rescue boat is constructed vessel featuring a "sandwich construction" Kevlar/F.R.P. hull and deck combined with a heavy-duty fabric air collar.

Colour :	White
Dimension :	5,95 x 2,48 m (moulded)
Capacity :	6 persons (including one Lying down)
Weight :	boat including engine (120 HP) diesel fuel (148 lts) and equipment : 1074 kg approx.
	Full recovery load including 6 persons : 1524 kg approx.
Fuel oil tank capacity :	148 litres
Endurance :	8.2 hours (average at 25 knots)
Bollard Pull :	326 kg (average over 2 min.)

Since the two following deviations from the Regulations and testing standards specified on the front page of this certificate were identified, the item is to be considered as a **"Non-SOLAS Rescue Boat"** :

- **deviation N° 1** : The item does not fully comply, in respect to the "highly visible colour", with requirement in paragraph 1.2.2.6 of the LSA Code : only the upper part of the inflated tubes and the upper side of the boat deck (internal part) comply with such a requirement. In case of capsizing, the visible parts of the rescue boat should not be of "highly visible colour", but of white colour.

- **deviation N° 2** : The item did not pass the righting test with two persons, as required in paragraph 7.1.7 of IMO Resolution MSC. 81 (70), Part 1.

2. DESIGN DRAWINGS and/or SPECIFICATIONS

The constructional arrangements, details and materials of the boat shall be in accordance with the Manufacturer's drawing:

N° CC56100-0	Orange SOLAS tube cover
N° DN561001 (1A)	Orange SOLAS deck cover
N° SL56106(1A)	6 point sling
N° SL56801-SS(1A)	4 point sling
N° SM561001 (1A)	General approval
N° SM561001 (1B)	General approval
N° SM561001(2A)	Console arrangement (minimum requirements)
N° SM561001 (2B)	Dash arrangement
N° SM561001(3A)	Buoyancy foam
N° SM561001 (3B)	Typical deck section
N° SM561001 (3C)	Typical hull section
N° SM561001C(1A)	Console arrangement (w/ customer supplied extras - as tested)
N° SM561001C(1B)	Dash arrangement (w / customer supplied extras - as tested)
N° SM561001X(1A)	Electrical schematic (w / customer supplied extras - as tested)
N° SM561001-1(1A)	6 point sling arrangement
N° SM561001-1(1B)	Mid ship lift point installation

No departure from these drawings is permitted without the prior consent of the society.

3. TYPE TEST REPORTS / LABORATORY RECOGNITION STATUS

Type tested in accordance with IMO Resolution MSC.81(70), Part 1, 7.1 to 7.3, **requirement 7.1.7 - Righting test- , exclusive**, by Zodiac Hurricane, under Bureau Veritas supervision, as per test report dated 2002-04-04,2002-04-29,and 2002-05-06.

Requirement in paragraph 1.2.2.6 of the LSA Code (to be of "Highly visible colour") not fully complied with.

Tests carried out on rescue boat, serial number XDC 560 21C 202.

4. MATERIALS and/or COMPONENTS REQUIRED TO BE TYPE APPROVED

4.1. Inflated tube material

Tissu 544 1470 gr/m², type tested by Central laboratory of ZODIAC International, F 31450, Ayguesvives, France, in accordance with MSA requirements, as per test report N° ZIT/99/130, dated 13/02/2002.

4.2. Retroreflective tapes

Retro- Reflective materials type REFLEXITE MG D 82-1545 acrylated polyester microprism reflective material, manufactured by REFLEXITE Corporation, U.K, to be sewed on, in accordance with IMO Resolution A658(16) and/or Merchant Shipping Notice N° M1444.

Type tested by REGISTRO ITALIANO NAVALE (RINA), as per test report N°95-DG-222/2-TO, dated 18/12/96.

4.3. Engine

The boat shall be fitted with the following outboard engine type, fitted with a propeller safety guard. To be of an approved type.

TYPE: Mercury 1.7 liter Diesel engine.

Power: 120 hp.

Propeller characteristics : pitch : 23" and diameter : 14".

Reduction ratio: 2.1

SOLAS tested by the American Bureau of Shipping, ABS House, 1 Frying Pan Alley, London, E1 7HR.Certificate number: 02-LD285074-X, dated on 11/04/2002, and expired on 10/04/2007.

The Barrus Shire D1.7L DT1 engine is manufactured by E.P. Barrus Ltd.

Alternative outboard engine can also be fitted provided the same above characteristics are fulfilled, and of an approved type.

4.4. Boat equipment in accordance with the Regulations stated on front page of this Certificate shall have to be as per list described in Society' s stamped Part List and Operating & Maintenance Manual, including :

4.4.1. a Sea-anchor of an approved type

4.4.2. a First-Aid Kit of an approved type .

4.4.3. a Radar-Reflector of an approved type.

4.4.4. two Thermal Protective Aids of an approved type.

4.4.5. Position-indicating Lights of an approved type.

4.5. F.R.P. materials

The CORVE8441B resin is manufactured by Interplastic Corporation CoREZYN division ,USA.

4.6. Buoyancy foam blocks

Evazote VA 35 (35 kg/m³), Plastazote LD 24 (24 kg/m³), Plastazote LD18 (18 kg/m³)

Foam type tested by BSI testing, England, in accordance with MSA requirements, as per test report n° N° 183278, dated 10.07.1991.

4.7 Disengaging gear (not supplied by the boat's Manufacturer).

To be of an approved type with a S.W.L. of not less than 1 475 kg, and supplied with a Certificate of Inspection from Bureau Veritas .

5. OTHER MATERIALS and/or COMPONENTS

5.1. As per the Manufacturer's Part list, stamped by the Society.

6. APPLICATION / LIMITATION OF USE

- 6.1. Acceptance on board a given ship is subject to the prior acceptance by the Society , taking into account the two deviations from SOLAS 74 Convention, as amended, stated on section 1, above. The item is not permitted to be installed on board a ship having to comply with SOLAS 74 Convention, as amended.
- 6.2. Temperature range : -1.0°C to 30°C (sea water)
- 6.3. Maximum capacity : 6 persons.

7. PRODUCTION SURVEY REQUIREMENTS

- 7.1. Arrangements shall be made for a Society's Surveyor to carry out, on a periodic basis, visit of the Manufacturer's premises and product audits.
- 7.2. The Manufacturer shall institute a quality control procedure, to the Society's satisfaction, in order to ensure that all boats are produced to the same standard as the prototype approved by the Society, and in order to comply with requirements of the Society.
- 7.3. Each boat intended to be fitted on board a Bureau Veritas registered ship shall be delivered with a Certificate of Inspection, or a Certificate of Product Conformity, as relevant.

8. ON BOARD INSTALLATION & MAINTENANCE REQUIREMENTS

- 8.1 As per requirements of Regulations stated on front page of this Certificate and, especially :
- The International Convention for the Safety at Sea 1974 (SOLAS 74), as amended by 2000 SOLAS Amendments, Reg. III/20.2 or III/26.2, as relevant.
 - IMO Resolution MSC. 81(70), Part 2, paras 5.3.1 & 5.3.3.
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- 8.2 The maintenance of the boat shall be only carried out by Servicing Stations recognized by Bureau Veritas for the purpose.

9. MARKING FOR IDENTIFICATION

- 9.1. The boat shall be marked in clear permanent characters as follows :
- Dimensions, the number of persons which it is permitted to accommodate (i.e. : 6 persons).
 - Manufacturer's serial number , name or trade mark.
 - S.W.L : 1 475 kg.
 - Date of manufacture.
 - BV approved.
- 9.2. On each side of the boat's bow in block capitals of the Roman alphabet :
The name and port or registry of the ship to which the boat belongs.
- 9.3. All materials used to mark the inflated rescue boat shall be of a type which is compatible with the boat's coated fabric and approved by the boat manufacturer.

10. OTHERS

10.1 This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the rigid inflated rescue boats at any time and that Manufacturer will accept the responsibility for informing shipbuilders or their sub-contractors of the proper methods of use and general maintenance of the boat and the conditions of this approval.

10.2 This certificate supersedes Certificate of Basic Approval issued on 2003-03-26 by the Society.

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