

Certificate of Type Approval

The product detailed below has been found by a member of the Lloyd's Register group to comply with the Specified Standard (s) referenced below and may be accepted for use on ships and offshore installations classed with Lloyd's Register, and on ships and offshore installations when authorised by relevant contracting governments.

Manufacturer	AR Safety AS
Address	Dampskipsveien 11, 6522, Norway
Type	NOVEL LIFE-SAVING DEVICE
Description	Man Overboard Water Rescue Device– Type: "ARhoop 240, ARhoop 290, ARhoop 360, ARhoop 440, ARhoop 520, ARhoop 600"
Trade Name	"ARhoop" also known as "ARBøylen"
Specified Standard	IMO Resolution A.520(13) Annex 2.1.1.5

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.

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR22220636SS-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.

This Certificate is an Amendment of Certificate Number LR22220636SS

APPROVAL DOCUMENTATION

ARhoop Drawings Revision 1, dated 10.02.2021
User Manual ARhoop

TEST REPORTS

Test report for visual inspection, fire test, resistance to sea water , oil resistance, load test and operational test, dated: 26.04.2022

CONDITIONS OF CERTIFICATION

1. The ARhoop is a marine rescue device with an adjustable breakable hoop fitted on telescopic tube to catch, secure and recover persons in water manually or using launching devices.
2. For the use of recovery of one person at a time from water to onboard deck .
3. SWL : 200 Kg
4. Weights & maximum out-reaching distances

Type	Weight:	Maximum out-reaching distance(m)
ARhoop 600	3.4 kg	6
ARhoop 520	3.1 kg	5.2
ARhoop 440	2.8 kg	4.4
ARhoop 360	2.5 kg	3.6
ARhoop 290	2.3 kg	2.9
ARhoop 240	2.0 kg	2.4

5. For each installation of the water rescue device, the “Company” (Ship Owner/Vessel Operator) should conduct and document a risk assessment taking into account the anticipated conditions and ship-specific characteristics. Based on risk assessment, the vessel shall have plan and procedure for recovery of person(s) from water. The recovery plans and procedures should facilitate the transfer of persons from the water to the ship while minimizing the risk of injury from impact with the ships side or other structures, including the recovery appliances itself.

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6. Ship specific plan and procedure for recovery of persons from the water should be developed in accordance with MSc.1/Circ 1447 and MSC.1/Circ 1182. The recovery operation to be conducted without causing undue hazard to the ship and the ship's crew, taking into account, but not limited to:
 - .1 manoeuvrability of the ship;
 - .2 freeboard of the ship;
 - .3 points on the ship to which casualties may be recovered;
 - .4 characteristics and limitations of equipment intended to be used for recovery operations;
 - .5 available crew and personal protective equipment (PPE);
 - .6 wind force, direction and spray;
 - .7 significant wave height (Hs);
 - .8 period of waves;
 - .9 swell; and
 - .10 safety of navigation.
7. A staged demonstration of the function test of the recovery device is to be carried out to the satisfaction of the attending surveyor.
8. The ARhoop shall have sufficient length to reach, in a single length, from the deck to the waterline in the lightest seagoing condition under all conditions of trim of up to 10° and a list of up to 20° either way.
9. Each device / system shall be marked with name of manufacturer, type and version identity, unique serial number and production month and year, enabling tracking of the device in production, sale and service.
10. Markings should include also any operational limitations such as safe working load (SWL) or Maximum out-reaching distance of the device .
11. Recovery operations should be conducted at a position clear of the ship's propellers and, as far as practicable, within the ship's parallel mid-body section.
12. A source of illumination and, where required, a source of power should be available for the area where the recovery operation is conducted.
13. On board drills should be conducted to ensure that the crew are familiar with this equipment and in water recovery procedures.
14. The hoisting mechanism to be used in conjunction with this recovery device is not part of this Design Appraisal or Certificate, but is expected to be tested in accordance with requirements of IMO Resolution MSC.81 (70) and chapter 12 of the LR Code for lifting appliance as appropriate, to the attending Surveyor's satisfaction.
15. For compliance with SOLAS Regulation III/35 & III/36 fully detailed operations and maintenance manuals with clear instructions on use and repacking shall be supplied with each equipment. The instructions shall be fixed on the cover or casing of the device / system and another instruction card shall be supplied which can be hung up in conspicuous place on the vessel.
16. It is to be confirmed that the use of this novel life-saving appliances is acceptable to the Flag Administration of the vessel on which the novel life-saving appliances is installed.

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR22220636SS-01

17. The fitting and servicing of devices shall be done in accordance with the manufacturer's instructions by companies or person familiar with the device and accredited by the manufacturer.
18. **Installation on board:** The installation of the equipment is not part of this Design Appraisal or Certificate. All such arrangements are to be to the satisfaction of the vessel's Administration and/or RO acting on their behalf on an installation-by-installation.
19. If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.
20. 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.
21. 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.
22. 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.

PLACE OF PRODUCTION

AR Safety AS
Dampskipsveien 11
6522
Norway



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).