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USER MANUAL ARHOOP

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DECLARATION OF CONFORMITY

ARHOOP 240, 290, 360, 440, 520 and 600 are built in accordance with the specifications in accordance with the provisions: International Convention for the Safety of Life at Sea (Solas)1974

The ARhoop is intended to save one person at a time from the water at the quay, on vessels and on a rig.

Operational terms: Storage of the product -30⁰C to + 55⁰C
Submerged in seawater -1⁰C to + 30⁰C

Operationally up to Sea State 5 to 6.

The product shall be stored free of moisture and ice.

The equipment shall not be used in zones on the ship/facility where there is gas present, i.e. in any form of ex zone.

The materials in the hoop itself are self-extinguishing in case of fire.

The materials do not absorb gasoline or any other form of liquid fuel.

Managing Director AR SAFETY AS

Roger Brunsvik

Date:

FOREWORD

This instruction has been prepared as a guide to the use and maintenance of ARhoop. The ARhoop is for saving one person pr. operation in accordance with this user manual, and selected parts of the LSA code,

It is delivered in six different types: ARHOOP 240, 290, 360, 440, 520 and 600.

The ship owner/operator is responsible for ensuring that THE ARhoop is used in accordance with local regulations.

"Chapter 1 Safety" provides good information about the safety risks of using the equipment.

The instruction is a recommendation for the operation and maintenance of THE ARhoop

Procedures in connection with the safety of the product shall be followed and incorporated by those operating the product.

1 SAFETY

The user manual is according to laws and regulations, and is specifically aimed at the International Convention for the Safety of life at Sea (Solas)1974

Safety assessment is made in accordance with best practice and in relation to the declaration of conformity released for the product.

The equipment shall undergo 12 months of inspection, visual inspection before use and instructions for this can be found in Chapter 4 maintenance. In case of suspected overload or extraordinary loads a more detailed check must be carried out. Appendix 5.1 shows the sketch of the ARhoop.

1.1 GENERAL SAFETY INSTRUCTIONS

OPERATOR'S QUALIFICATIONS

Only personnel who are qualified to use the AR hoop shall use it.

Physical and mental health should be satisfactory.

The operator shall do the following before and when using the ARhoop:

THE OPERATOR SHALL:

- Read this manual and understand the use of the product.
- Read relevant National requirements.
- Read and understand risk assessments on board the ship before use.
- Perform visual inspection and functional testing of equipment before operation.
- Should be sufficiently trained to use the product.
- Use the correct protective equipment.

RESPECTING THE MARKING OF THE EQUIPMENT

THE OPERATOR SHALL NOT:

- overload the equipment.
- use it to save more one person at a time
- use the hoop to lift/move loads, or other purposes not described in the user manual.
- use the ARhoop to pull equipment along the deck.
- use the ARhoop in the EX zone.

2 OPERATION OF THE ARHOOP.

The ARhoop is intended to save one person at a time from the water/sea. This can be up on land, a vessel/rig or some other form of floating facility.

The equipment must be implemented in the ship's/company risk assessment concerning the boarding of personnel.

2.1 GENERAL INSTRUCTION WHEN USING THE ARHOOP

The ARhoop should be used as follows:

(See Figure 2.1 for pictorial representation for using the ARHoop.)

- a) Remove the ARhoop from the storage space itself.
- b) The catch loop should always point downwards when the ARhoop is operated.
- c) Perform a visual check and function test before using it.
- d) Pull out the adjustment bar so that the catch loop is expanded. The reflective markings on the catch loop indicate maximum and minimal opening.
- e) Keep in good eye contact with the person in the sea.
- f) The operator places himself in such a position that it is possible to see and reach the person to be rescued.
- g) The operator must be in a safe place without the risk of falling overboard.
- h) The catch loop is carried into the sea above the person so that the hoop can be tightened under the arms of the person to be admitted.
- i) Push in the adjustment bar and tighten the catch loop. This is done as gently and quickly as possible. This is done in accordance with the operating instructions.
- j) The operator is placed on the deck so that the person in the sea can be constantly observed.
- k) Observe that twists may occur when using the ARhoop.
- l) When operator grip is released, the adjusting rod will be braked and prevent further expansion of the catch loop.
- m) The ARhoop can be used to move the person out of the sea. For boarding - the entering should be used in accordance with the ship's risk assessment/entering capabilities.
- n) The person is taken on board in the most gentle way as possible, and with the ship's entering or hoisting arrangement. Load during lifting in a vertical direction, should only pass through the lifting gear of the ARhoop.
- o) The adjustment rod and guide tube are taken, these are pushed against each other to release the rescued person from the catch loop. See reflective mark showing open state of the catch loop.

Figure 2.1-pictorial representation of the ARhoop.

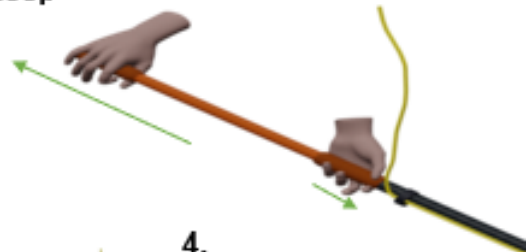


Instruction for use

1. Pull out the ARHoop that is ready for use in the bag



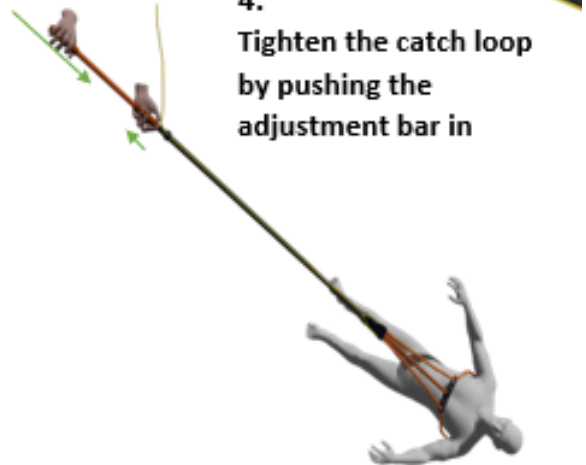
2. Grab both handles and pull the adjusting rod out to get a large catch loop



3. Guide the catch loop around the person



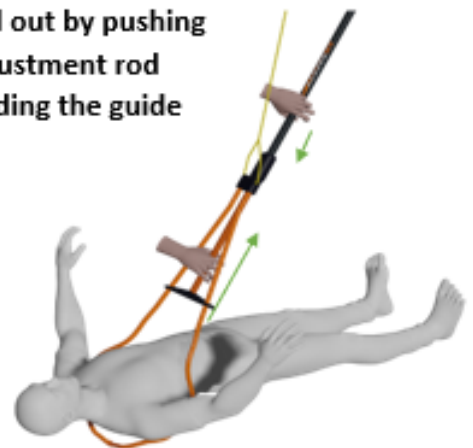
4. Tighten the catch loop by pushing the adjustment bar in



5. The catch loop brakes when grip is released. The person can be hoisted up



6. The catch loop is slacked out by pushing in the adjustment rod while holding the guide tube



5b. Use of hoisting arrangement:

Connect through lifting eye.



2.2) THE FOLLOWING SAFETY REQUIREMENTS SHOULD BE OBSERVED.

If there is uncertainty regarding the use of the AR Hoop, the ship/company's user manual and risk assessments shall be reviewed.

Work area should be illuminated. The ARhoop is equipped with a reflex.

Wear protective equipment – i.e. non-slip safety shoes, gloves, goggles, helmet and suitable work wear.

In any event, vacant personnel must assist the life-saving process.

The use of the ARhoop shall take place as gently as possible when rescuing.

Make eye contact between the operator and person saved out of sea if possible.

Be careful when operating near propeller areas

The rod should only be used to drag/push the person under operation. Do not expose the adjusting rod and guide tube to bending torque.

Strong restrictions when using the ARhoop at Sea State 4 to 5. Observe great forces when lifting the person through the squala zone.

Before carrying a person lift, the operator shall ensure that the person is securely secured in the catch loop.

All movements should take place gently, observing hazards when the rescued person is moved out of the crest zone.

Persons should not be lifted by breaking/bending the ARhoop over, for example railing/edge. Lift should only take place with the use of lifting ropes.

When lifting the person, nearby zones should be observed to prevent the ARhoop from hooking up in protruding elements.

Upon release from the ARhoop, the person should be in a stable and safe condition, so that the person can be relieved/removed easily from the ARhoop.

CHAPTER 3 DESCRIPTION OF THE AR HOOP

THE ARhoop is supplied standard in the following selections:

ARhoop 240, ARhoop 290, ARhoop 360, ARhoop 440, ARhoop 520, ARhoop 600

The designation 240, 290 etc. indicates the range

CHAPTER 3.1 DETAILED DESCRIPTION OF THE ARHOOP

The ARhoop column consists of a catch loop and an adjustment rod with guide tube. The catch loop is attached at the end of the guide tube. In addition, a lifting rope is attached to the catch loop, which should be used when the person is lifted out of the water. See sketch 3.1

Catch loop (hoop):

The catch loop consists of a hose attached to the catch loop holder together with the lifting rope and guide tube. The catch loop is threaded through a tensioner that delimits the perimeter of the catch loop. The tensioner is attached to the adjustment bar. The perimeter of the catch loop is changed by pushing the adjusting rod in and out of the guide tube. The tensioner will have an impact on the body of the person to be rescued when the catch loop is tightened. The catch loop has a reflective marking for the tensioner's positioning when fully tightened, and at completely tensioned.

The lifting point of the catch loop is located in the catch loop holder. The lifting point connects the inner fuse line of the catch loop with hose attachment and connection to the Lifting Rope. This means that the power of the lift rope is continuous throughout the catch loop. Therefore, all lifting should take place through the lifting rope. See Sketch 3.1.1

Adjustment rod/Guide tube

The adjusting rod is inserted into the guide tube and acts as an extension for increased length, and in combination with the guide tube it allows to adjust the circumference of the catch loop from the opposite end.

The adjusting rod and guide tube have dedicated grip areas for hand grip. Adjusting the perimeter of the catch loop is done by one two-handed grip, one hand on the adjusting rod and one hand on the guide tube. See Sketch 3.1.2

Brake

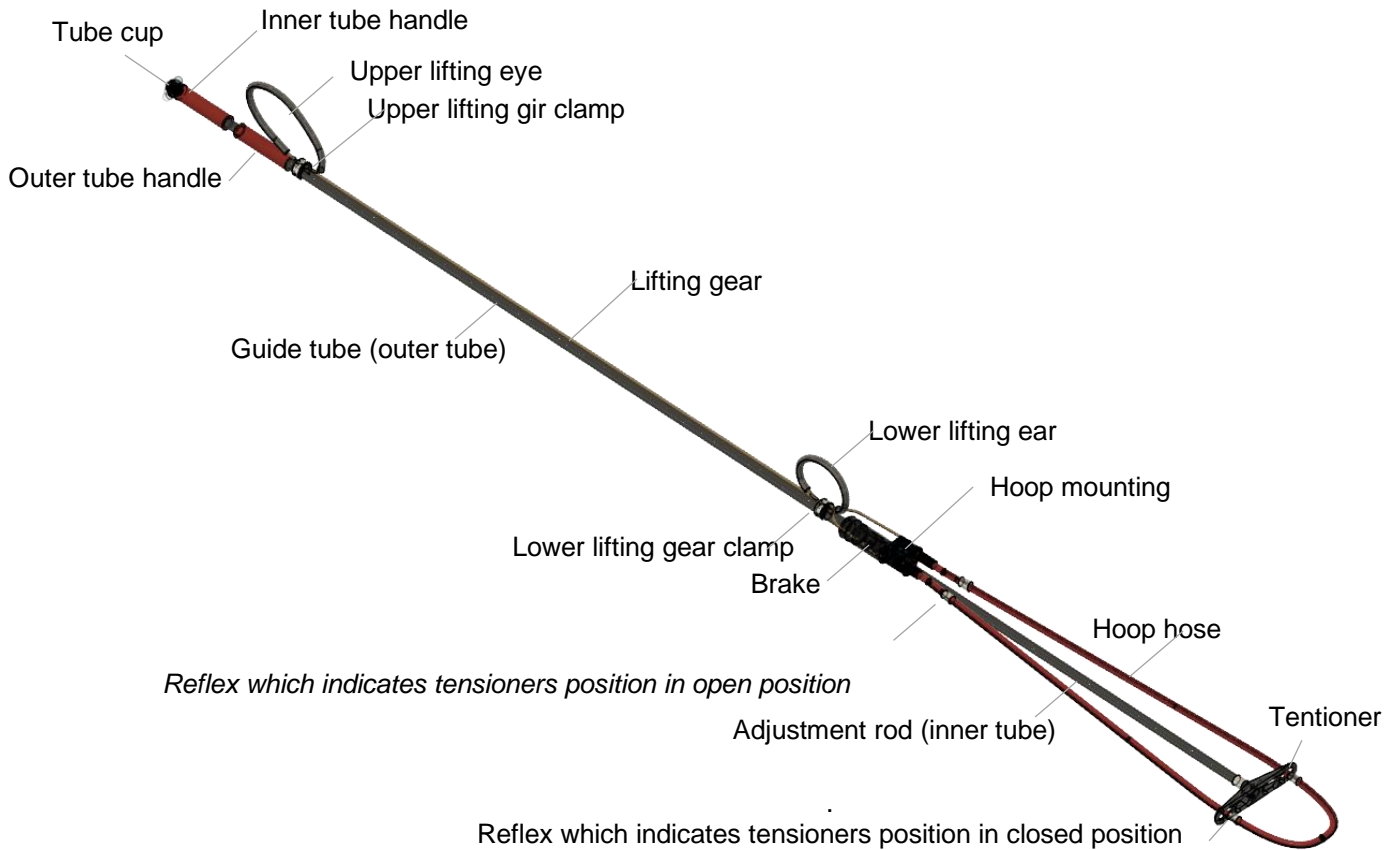
At the end of the guide tube towards the catch loop is an axial friction brake. This slows the axial movement of the adjusting rod through the guide tube and is normally active. During the use of the hoop with the described two-hand grip, the brake function is released. The catch loop is then adjusted to the desired position. By releasing grip on the guide tube, the friction brake will again be activated. See Sketch 3.1.3

The Lift Rope

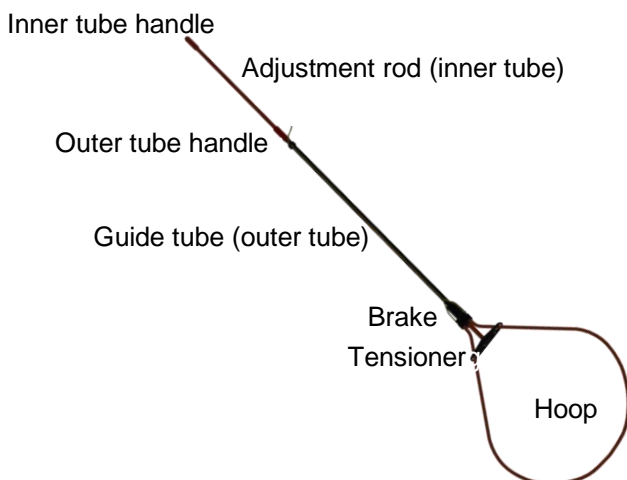
The lifting rope is attached to the catch loop holder's lifting point. The lifting rope has 2 lifting eyes. One at the lower end of the mounted to the catch loop holder, and one at the opposite end at the upper part of the guide tube. The lifting rope, is attached to the guide tube with a clip in the lower part, and a clip in the upper part. Both in connection with their own lifting eye. Lift is carried out through the lifting eyes. See sketch 3.1.4

sketch 3.1

ARhoop in closed



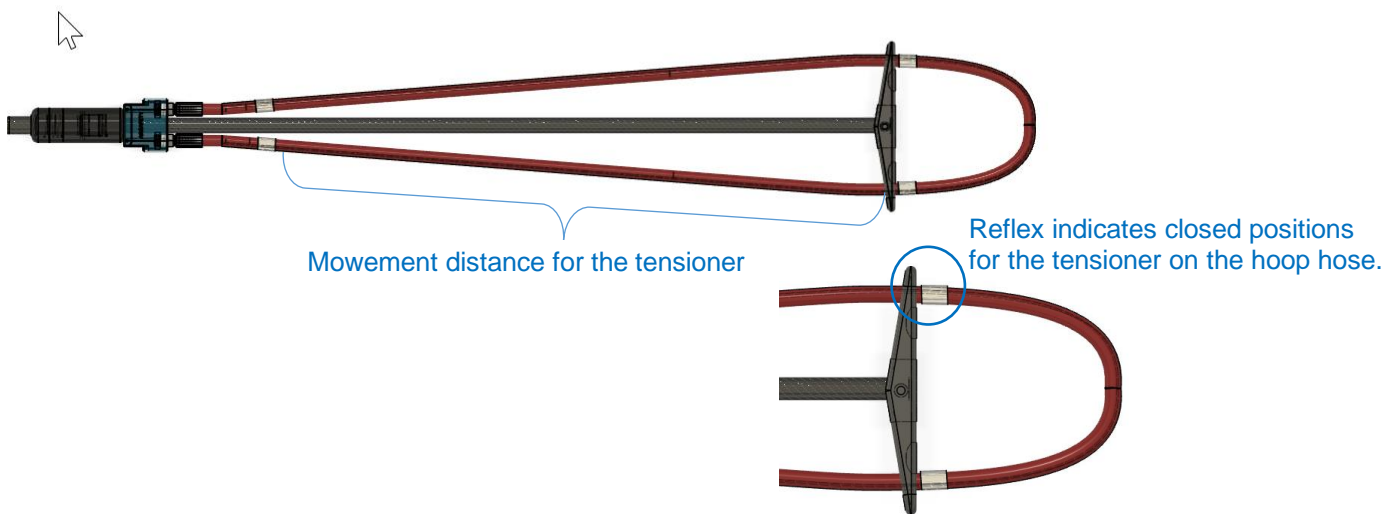
ARhoop in open position



Sketch 3.1.1: Hoop

The hoop in closed positions

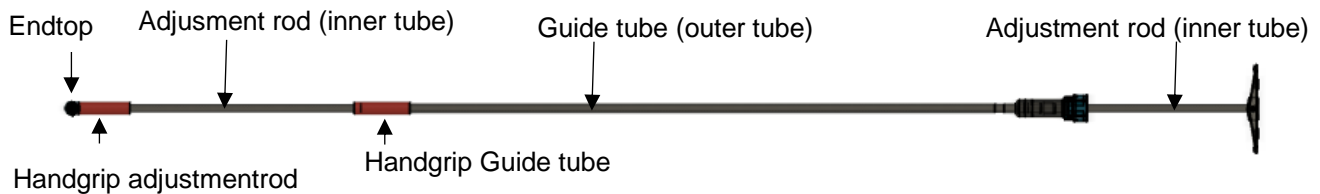
The adjusting rod has pushed the tensioner to the maximum in the hose, and the diameter is minimal.



Catch line in open positions

Adjustment rod is pulled to it`s maximal position for the catch line.

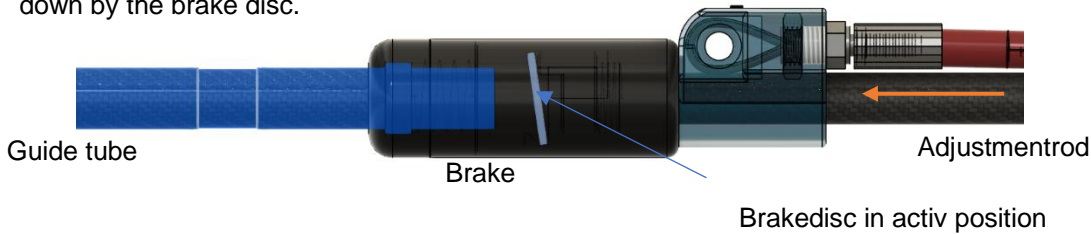
Sketch 3.1.2: Adjustmentrod/Guiderod



Sketch 3.1.3: Brake

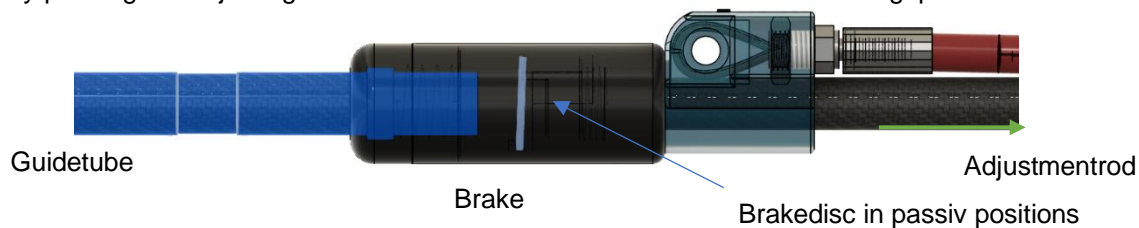
Brake in activ positions *(Condition without established grip for adjusting the catch loop.)*

An axial movement of the adjusting rod out of the guide tube (expanding the catch loop) will be slowed down by the brake disc.



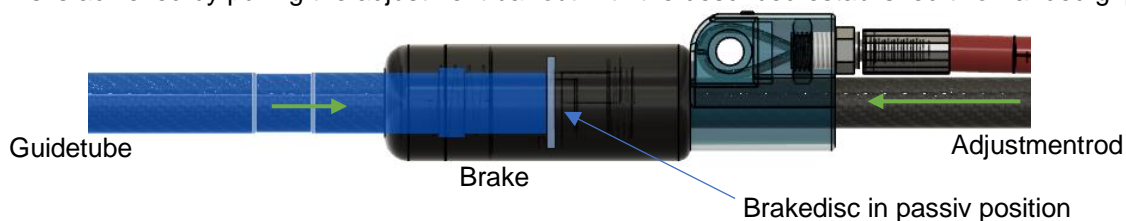
Brake in passiv positions *(Movement for Closure of the catch loop)*

An axial movement of the adjusting rod into the guide tube (Tightening the catch loop) will drag the brake disc to the open position. The axial movement will then reduce friction from the brake disc. This is achieved by pushing the adjusting rod in with the described established two-handed grip.

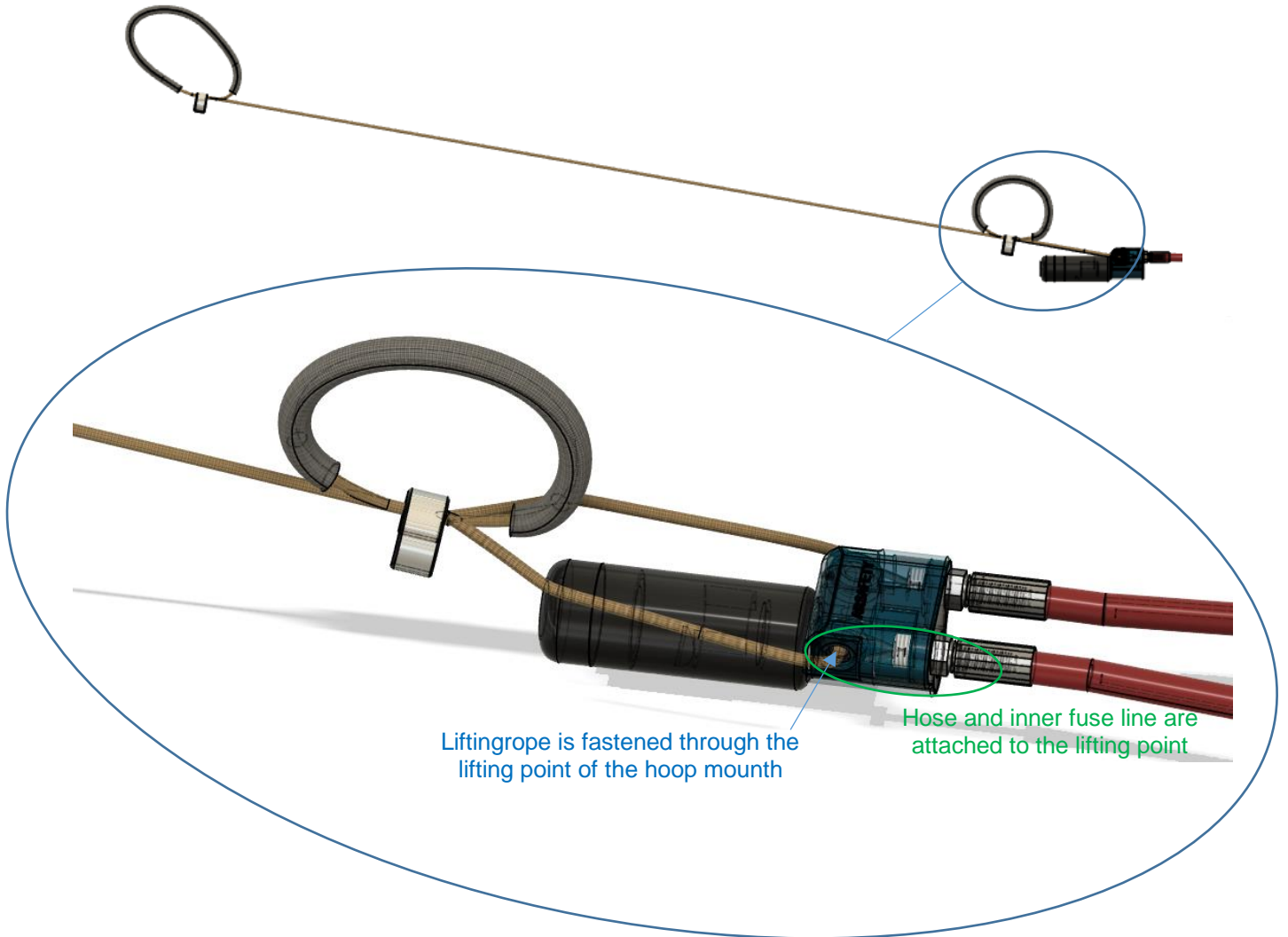


Brake in passiv position *(movement for opening of the catch ine)*

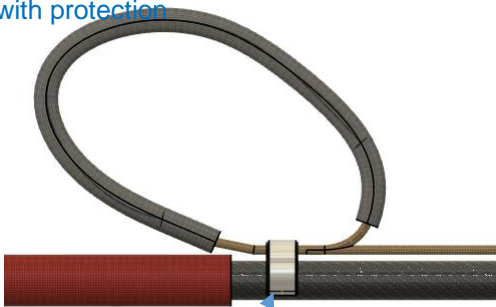
By pushing the guide tube inwards into the brake, the brake disc will be pressed in a passive position. Then an axial movement of the adjusting rod out of the guide tube will have reduced friction from the brake disc. This is achieved by pulling the adjustment bar out with the described established two-handed grip.



Sketch 3.1.4: Lifting rope



Upper lifting eye of the lifting rope with protection



Upper Rope Clip

Lower lifting eye of the lifting rope with protection




Lower Rope Clip (should be placed in dedicated groove in guide tube)

CHAPTER 3.2 MARKING OF THE AR Hoop

The AR rope is marked with identification of the manufacturer, identification of the maximum permissible load, type, specific weight and year of manufacture.

The marking is placed on the holder of the catch rope, see sketch 3.2

Sketch 3.2 Marking of the ARhoop

 Kristiansund - Norway - arsafty.no - post@arsafety.no	
Produsent / Manufacturer:	AR SAFETY AS
Adresse / Adress:	Dampskipsveien 11
	6522 Frei
	Norway
Produkt type / Product Type:	ARhoop
Tillat arbeidslast / Working load:	1 person, 150kg
Tillat temperature sjøvann Working temperature seawater:	-1°C til 30°C
Produksjons test utført / Production tested:	
Year	2021 2022 2023 2024 2025 2026
Month	1 2 3 4 5 6 7 8 9 10 11 12



CHAPTER 4 REGULAR MAINTENANCE OF THE AR Hoop

The ARhoop is stored in a space that does not degrade plastic parts. It can be of UV radiation, breakdown of chemicals, frost and high heat or very low temperatures. Keep the product away from all forms of solvents and strong oxidisers.

The polyoxymethylene material has very good water resistance and saline resistance. The resistance is less good against acids, bases and oxidizers. The material ages significantly by exposure to the mentioned chemicals.

General maintenance

After use, the ARhoop should be cleaned with fresh water, and then completely dried. The ARhoop is functionally tested before storing it in a suitable location.

12-month control

-Hoop:

- The hoop mounthing/ and its protective cover consists of plastic details. These should be inspected for cracks, delamination, discoloration, and burns.
- Hose is inspected for damage and wear. The surface of the hose should be intact, without wounds penetrating the orange surface.
- The hose has a 50cm long stiff pair on each side. This party should be intact without breaking.
- Reflective marks indicating min and max opening should be intact and clearly visible.
- The tensioner consists of plastic and should be inspected for cracks, delamination, discoloration, and burns.
- The tensioner is attached to the adjusting rod with a bolt. Make sure the bolt is not loose.

-Guide tube and Adjustment rod:

- The adjusting rod is inserted into the guide tube and must be pushed back and forth to visually inspect both exposed ends. Look for signs of damage/cracks that will affect the strength of the rod.
- The guide tube goes on the outside of the guide tube and is clearly visible for inspection. Look for signs of damage/cracks that will affect the strength of the rod.
- Check that the handles are intact.

- Brake:

- Hold one hand on the brake and slide the adjusting rod upwards into the brake. The brake should then provide friction
- Hold a hand on the brake and pull the adjusting rod downwards in the brake. The brake should then provide less friction.
- Hold one hand on the lower part of the guide tube and slide the adjusting rod upwards into the brake. Brake should then provide less friction
- Hold a hand on the brake and slide the guide tube into the brake. Guide tubes should go 1-1.5 cm into the brake. The guide tube is spring-loaded and should return when released.
- Check the external brake for cracks, delamination, discoloration, and burns. Do not open the brake.



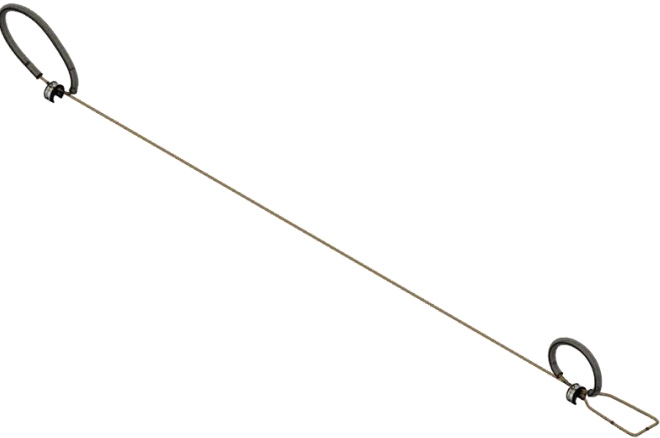
-The lifting gear:

- Check the rope for damage and wear. Check the points where the rope is in contact with other parts, such as the catch loop holder and the rope clips.
- The lifting rope is spliced at the upper lifting eye, lower lifting eye and when attaching to the catch loop. Check that the splices are intact.
- The lifting islands have padding for protection, which consists of a duvet strap and a nylon stocking outer. Check that any wear does not go further than the duvet sax.

If deviations are observed under control, remediation should be carried out according to the manufacturer's instructions.

When renewing components, only original parts must be used in accordance with the manufacturer's spare part list in accordance with chapter 5.

CHAPTER 5 SPAREPART LIST FOR THE ARHOOP

Part	Image of parts	Part number
Adjustment rod and Guide tube with brake		T290 T290 T360 T440 T520 T600
Hoop		H1
Lifting gear		L290 L290 L360 L440 L520 L600