

HENRIKSEN HOOKS

**HOOKS**  
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# HHSR

REMOTE RELEASE OFF-LOAD HOOK  
WITH INTEGRATED SWIVEL JOINT



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Rev.: -1

M000304

**HENRIKSEN**

REDUCING OPERATIONAL RISK

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## GENERAL

- Read this user manual carefully before you use the hook and save it for future reference.
- Operational scenarios with corresponding risk evaluations must be well known for the operators.
- It is important that the hook is inspected and maintained periodically to ensure a safe and well-functioning equipment.
- Monthly controls by the operators are limited to visual check and practical operations.
- All necessary examination and maintenance shall be carried out by authorized service personal.
- Annual inspection course for Henriksen hooks is available online, please check our website for more information.
- 5-years thorough examination and overhaul require authorized service personnel trained according to H. Henriksen AS specific procedures to ensure continued compliance with MED-B and MED-D certification for the hook.

The mandatory 5-years overhaul consist of replacement of load bearing components and recertification according to factory acceptance procedures.

- Any unauthorized repair, service and/or parts used in the hook will violate the certification, safety and warranty.
- Contact the manufacturer in case of any visible damage and/or if malfunction occurs.

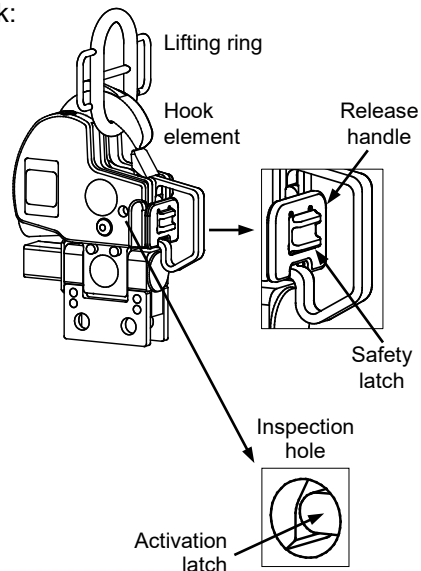
## HHSR

### LAUNCH

**1** Check that the power supply is on.

**2** Check the following on the hook:

- the hook element is in closed position
- the release handle is in inner (closed) position
- the safety latch is in low position
- you can clearly see the activation latch in the inspection hole, refer to the illustration
- the lifting ring is properly placed
- the hook is free of any impurities or ice



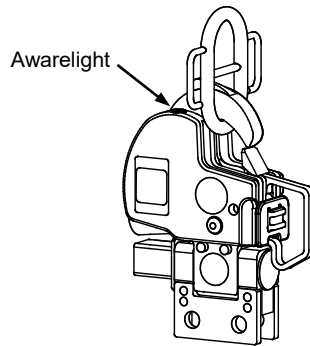
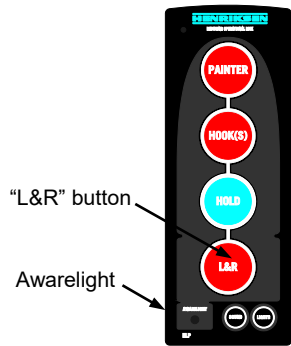


## HHSR

### LAUNCH

- 3 Push the “L&R” button on the control panel.

The awarelight starts to light continuously on the hook and on the control panel, this confirms that the system is ready.



- 4 Start the lowering process with a continuous motion.

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## HHSR

### LAUNCH

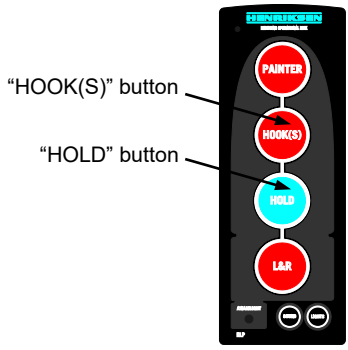
**5** When the boat is close to the water surface activate the hook:

- Push the “HOLD” and the “HOOK(S)” buttons at the same time on the control panel.

The awarelight changes from a continuous light to a 1 Hz flashing light.

**NOTE:**

To cancel the activated state of the hook, push the “HOLD” and the “HOOK(S)” buttons at the same time on the control panel again. The awarelight goes off.

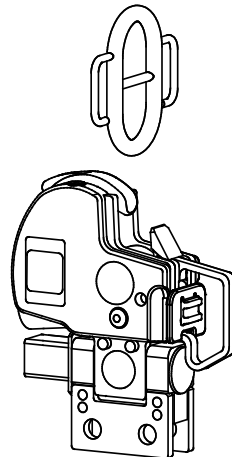


**6** When the boat is waterborne and the hook is off-loaded, the hook will open automatically and release the lifting ring.

The awarelight changes from a 1 Hz flashing light to a 10 Hz flashing light.

**NOTE:**

The awarelight goes off after 30 seconds or if you set the hook element to closed position.

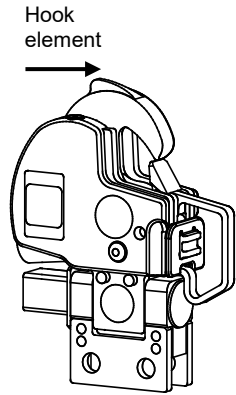




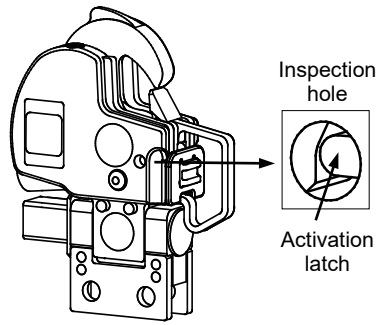
## HHSR

### RESET

- 1 Set the hook element manually to closed position on the hook, confirmed by a click sound.



- 2 Make sure that you can clearly see the activation latch in the inspection hole, refer to the illustration.



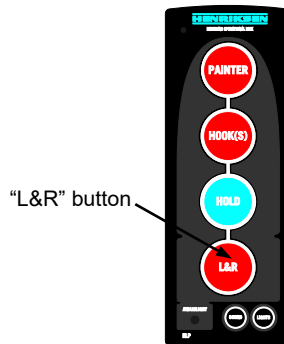
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## HHSR

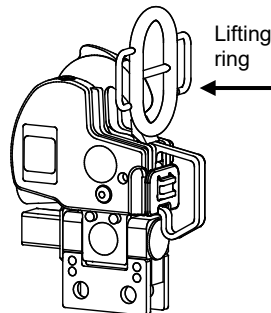
### RECOVERY

- 1 Make sure that the hook is reset and push the “L&R” button on the control panel.

The awarelight starts to light continuously on the hook and on the control panel, this confirms that the system is ready.



- 2 Place the lifting ring properly into the jaw of the hook.

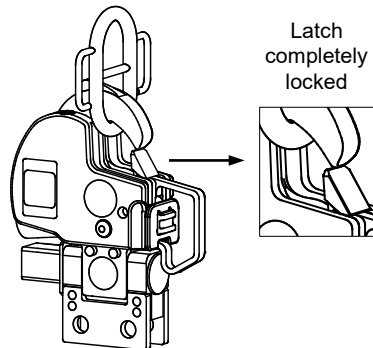




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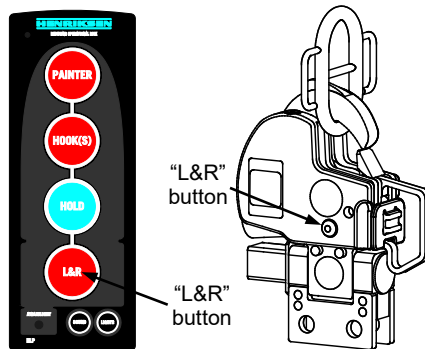
### RECOVERY

**3** Make sure that the latch is completely locked, refer to the illustration.



**4** Push the “L&R” button on the control panel or on the hook.  
The awarelight changes from a continuous light to a 10 Hz flashing light.  
The hook is ready to recover the boat.

**NOTE:**  
The awarelight goes off automatically after 20 seconds.



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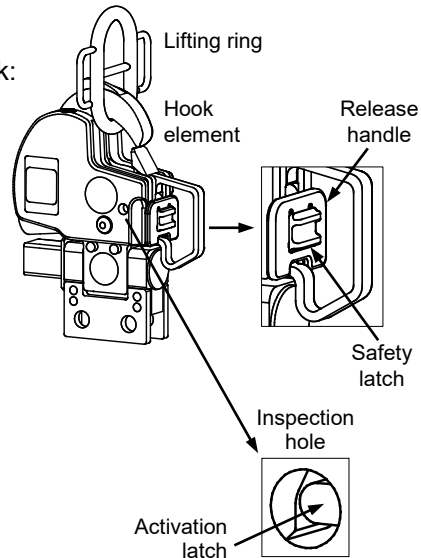
## HHSR

In case of power failure the hook can be operated manually, without using the control panel and without any feedback from the awarelight.

### LAUNCH

#### 1 Check the following on the hook:

- the hook element is in closed position
- the release handle is in inner (closed) position
- the safety latch is in low position
- you can clearly see the activation latch in the inspection hole, refer to the illustration
- the lifting ring is properly placed
- the hook is free of any impurities or ice

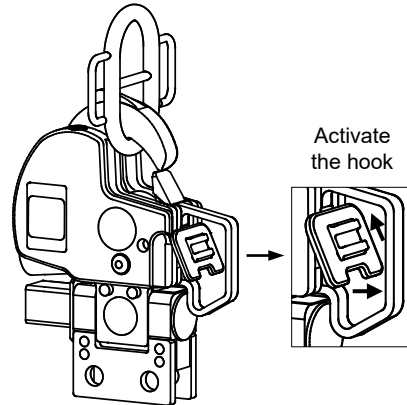


#### 2 Start the lowering process with a continuous motion.

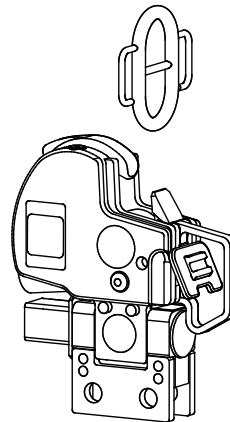
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### LAUNCH

- 3** Activate the hook when the boat is close to the water surface:
- pull the release handle to the outer (activated) position and set the safety latch to the high position



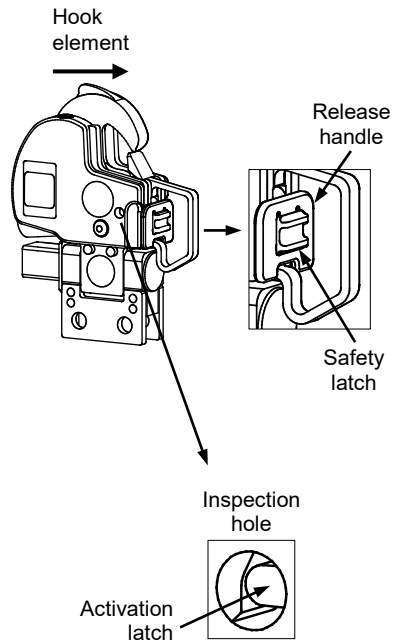
- 4** When the boat is waterborne and the hook is off-loaded, the hook will open automatically and release the lifting ring.



## HHSR

### RESET

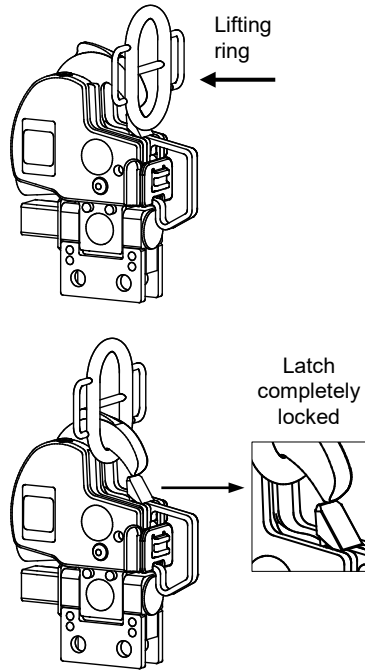
- 1** Pull the release handle and set the safety latch to the low position and then release the handle.
- 2** Set the hook element manually to closed position, confirmed by a click sound.
- 3** Check that you can clearly see the activation latch in the inspection hole, refer to the illustration.



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### RECOVERY

- 1** Make sure that the hook is reset.
- 2** Place the lifting ring properly into the jaw of the hook, and make sure that the latch is completely locked, refer to the illustration.
- 3** The hook is ready to recover the boat.

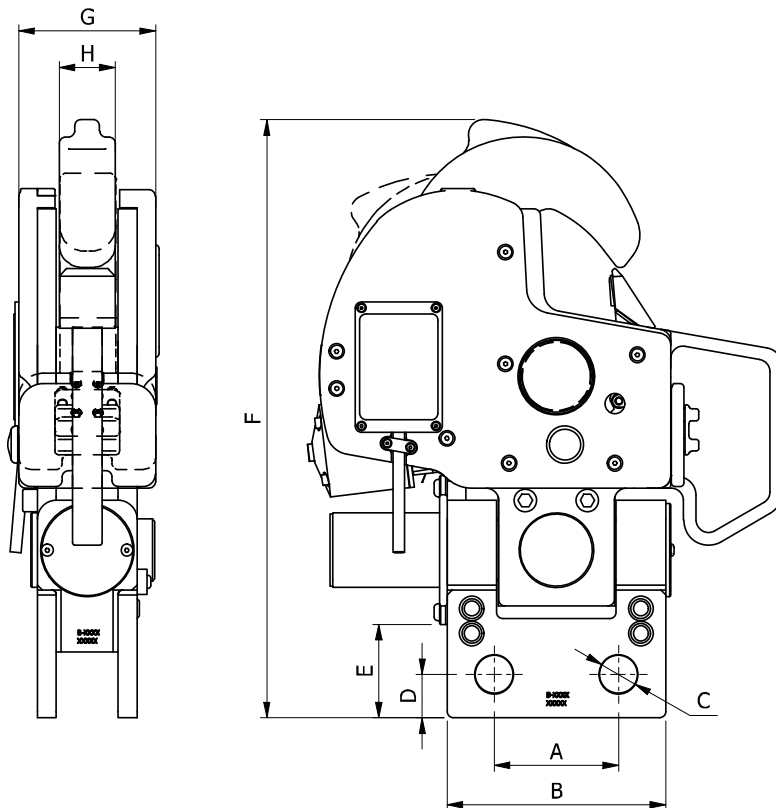


## GENERAL CONSIDERATIONS

- 1** Make sure that there will be no collision between the hook and any part of the boat within the operational range (up to 30 degrees both ways) of the swivel joint.
- 2** Make sure that there will be no tension in the electrical cables within the full range of the swivel joint.
- 3** Consider the ergonomical details before mounting the hook. It shall be easy to install and remove, and safe to operate the hook and insert the lifting ring.
- 4** Consider the ergonomical details before mounting the control panel. It shall be easy to install and remove, and safe to operate the control panel.
- 5** Make sure that no obstacles will reduce the visibility of the awarelight for the crane operator.
- 6** We strongly recommend to use standard Henriksen Lifting Rings, because the ring dimensions are designed to **geometrically fit** together with the Henriksen Hooks.
- 7** Use an installation path for the cables that prevents tripping hazard, and protect the cables against wear and tear.

# HHSR

## DIMENSIONS



PART NO.	HOOK	SWL	A	B	C	D	E	F	G	H	WEIGHT
HH007640	HHSR 12	12 000 kg	100	176	Ø30,5	35	75	482	110	45	41,5 kg

**NOTE:** Detailed drawings and 3D models are available upon request.

## HHSR

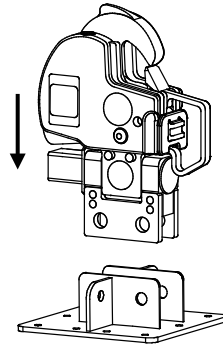
### MECHANICAL

- 1** Place the hooks between the plates of the lifting arrangement of the boat.

We recommend:

- to use two outside mounting plates if possible
- to apply shims to reduce the gap between the mounting plates and the hook.

Check that the handle points in the preferred direction.



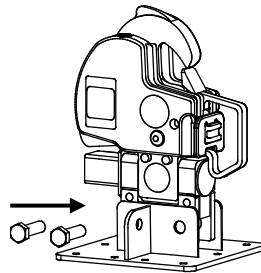
- 2** Insert the mounting bolts through the holes on the lifting arrangement and the hook.

**WARNING:**

Use M30 bolts with minimum A4-70 quality.

The bolt should be unthreaded in the lifting cross-section.

The length is specified by the boat builder.



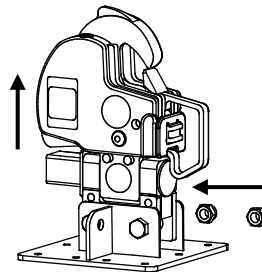
- 3** Mount the locknuts.

We recommend to hold the hook in lifted position when tightening the locknuts.

**WARNING:**

Use M30 locknuts and maximum 70 Nm torque.

Always use new locknuts.



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## ELECTRICAL

- 1 Prepare the operation board for mounting the control panel.

Refer to the illustration for cutout size and hole ( $\varnothing 4$ ) positions.

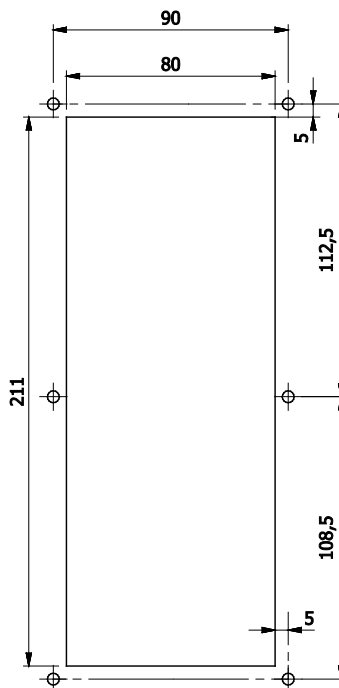
Use correct type of M4 /  $\varnothing 4$  countersunk screw (depending on the board material) to fasten the panel.

- 2 Remove back cover from the control panel.

- 3 Install the cables from the hook and from the power supply towards to the control panel.

- 4 Pull the cables through the back cover of the control panel.

- 5 Cut the cables to correct length before connecting to the panel.



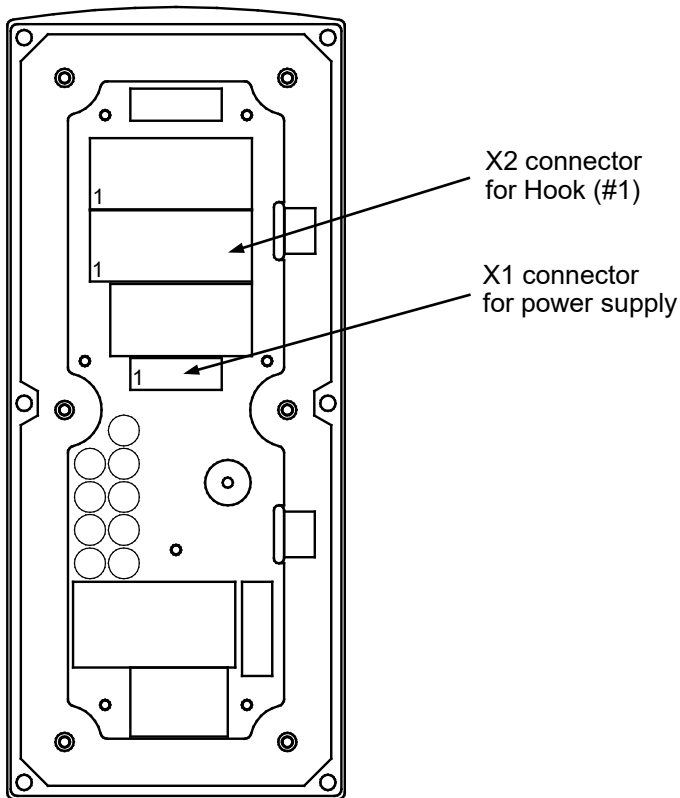




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### ELECTRICAL

- 6** Connect the cables, refer to the connection diagram and the tables on the next page.





## HHSR

### ELECTRICAL

**X2** connector

**W1** cable from Hook (#1)  
(12 x 0,5 mm<sup>2</sup>)

Pin	Wire	Description
1	1, 11	Solenoid +
2	2, 12	Solenoid -
3	3	Sensor +
4	4	Sensor -
5	5	! Activated
6	6	Open
7	7	Loaded
8	8	Awarelight +
9	9	Awarelight -
10	10	L&R

**X1** connector

**W3** cable from the power supply  
(2 x 1,5 mm<sup>2</sup> with 10 A fuse)

Pin	Wire	Description
1	1	Power +
3	2	Power -

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### ELECTRICAL

- 7** The hook is delivered with a 6 m long cable connected.  
Use a junction box and an additional cable with proper wire dimensions in case the distance between a hook and the control panel is greater than 6 m.  
  
The total wire resistance between the solenoid and the control panel shall be lower than 0,2 Ohm to secure the correct operation of the solenoid.
  
- 8** Mount the back cover back to the panel.  
**NOTE:**  
Take care of the flat cables, do not pinch them under the edge of the cover.
  
- 9** Tighten the cable glands.
  
- 10** Mount the control panel into the operation board.
  
- 11** The electrical system operates with both 12 VDC and 24 VDC power supplies, the operational range is: 10 - 32 VDC.

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### FUNCTIONAL TEST

Do a functional test of the following after mounting the hook and the control panel on the boat:

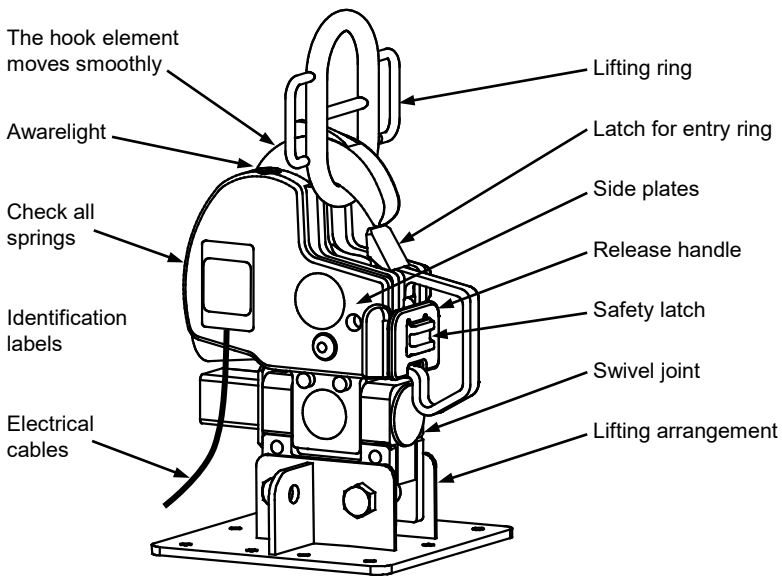
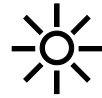
- There is no collision between the hook and any part of the boat within the operational range (up to 30 degrees both ways) of the swivel joints.
- There is no tension in the electrical cables within the full range of the swivel joint.
- When the hook is unloaded, it will open immediately at the same time when you activate it on the control panel.
- Load or simulate the load on the hook and check that the activated hook will not open until the load is removed.
- Test the manual override function: the unloaded hook opens immediately when you set the release handle into activated position.
- The hook element can open freely.
- The rings can be inserted simply and safely.
- Check the awarelight functions.
- Make sure that no obstacles reduce the visibility of the awarelight on the hook for the crane operator.
- The installation path for the cables does not cause tripping hazard and the cables are protected against wear and tear.

We recommend to prevent the hook against any ice to build up.



## HHSR

- 1** For safety reasons carry out the control in good lighting conditions.
- 2** Remove all impurities (salt, grease, dust, etc.) with fresh water. Remove ice if necessary.
- 3** Check that the following parts are free from deformations and defects:



Contact the manufacturer in case of any deviation!

## HHSR

- 4** Do a functional test of the following:
- There is no collision between the hook and any part of the boat within the operational range (up to 30 degrees both ways) of the swivel joints.
  - There is no tension in the electrical cables within the full range of the swivel joint.
  - When the hook is unloaded, it will open immediately at the same time when you activate it on the control panel.
  - Load or simulate the load on the hook and check that the activated hook will not open until the load is removed.
  - Test the manual override function: the unloaded hook opens immediately when you set the release handle into activated position.
  - The hook element can open freely.
  - The rings can be inserted simply and safely.
  - Check the awarelight functions.
  - Make sure that no obstacles reduce the visibility of the awarelight on the hook for the crane operator.
  - The installation path for the cables does not cause tripping hazard and the cables are protected against wear and tear.

**5 DO NOT PAINT ANY PART OF THE HOOK!**



Contact the manufacturer in case of any deviation!

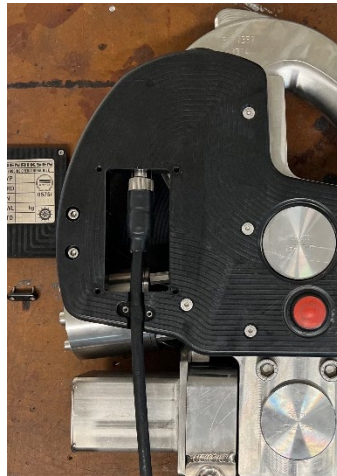
## HHSR

- 1 Perform a yearly, visual inspection of the electrical connector on the hook for any corrosion. Corrosion in this connector or in any other part of the cable may result in a short circuit, or faulty operation of the hook.

Start by disassembling the 4 Phillips screws on the side panel of the hook, and the 2 Phillips screws holding the cable marked with red circles on the photo below.

Then you can unscrew the connector collar and unplug the connector. Inspect for any signs of corrosion in the connector.

Before reassembly, apply **Molykote compound 111** or equivalent acid-free, water-resistant, electrical grease to inside the connector.



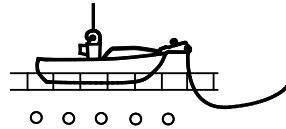
Contact the manufacturer in case of any deviation!



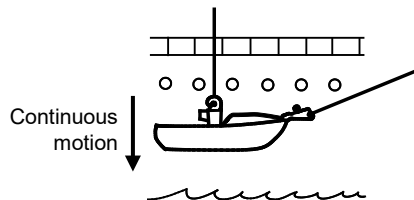
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### SAFE LAUNCH

**1** The hook operator connects the lifting ring and the painter line before launch, and then gives a signal to the crane operator that the lowering process can start.

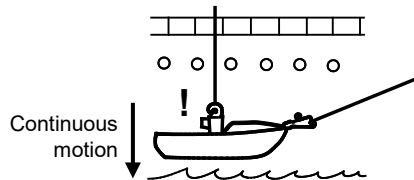


**2** The crane operator starts the lowering process with a continuous motion.



**3** The operators make sure that there are no obstacles under the boat.

The hook operator then activates the lifting hook when the boat is close to the water surface.



**4** The hook operator stands back and takes a safe stand-by position.

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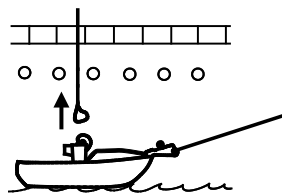


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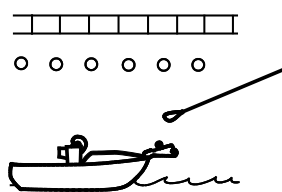
### SAFE LAUNCH

- 5** When the boat gets waterborne and the lifting hook is off-loaded, the hook will open automatically and release the lifting ring.

The crane operator lifts the lifting ring to avoid collision with the boat or the crew.



- 6** The coxswain or the hook operator releases the painter line when the boat and the crew is ready.



- 7** The coxswain maneuvers the boat ahead and away from the vessel.

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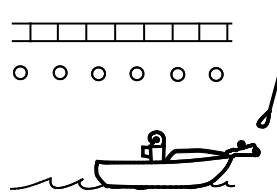


## HHSR

### SAFE RECOVERY

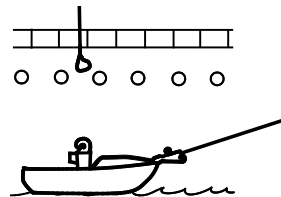
**1** The hook operator makes sure that the lifting hook and the painter hook are reset.

**2** The coxswain maneuvers the boat close to the vessel to let the hook operator safely get the painter line.

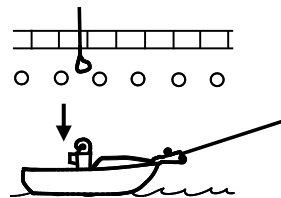


**3** The hook operator connects the painter line.

**4** The coxswain reduces the speed of the boat to get in the correct position below the lifting ring.



**5** The crane operator lowers the lifting ring to let the hook operator safely get it.



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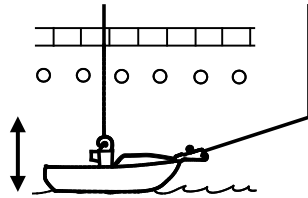


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### SAFE RECOVERY

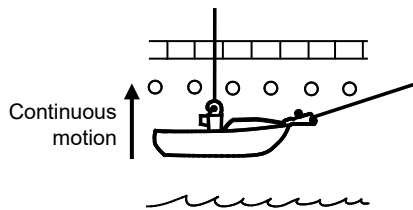
**6** The hook operator connects the lifting ring to the hook, and gives a signal to the crane operator.

The crane operator starts the automatic tensioning system (if available) to give tension in the wire.

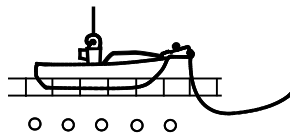


**7** The hook operator stands back and takes a safe stand-by position.

**8** The crane operator starts the lifting process with a smooth motion as the boat moves upwards on a wave.



**9** The crane operator completes the lifting process with a continuous motion and places the boat into the crib.



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