

HENRIKSEN HOOKS

HOOKS
HENRIKSEN HOOKS

HPH 2,5
PAINTER HOOKS



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Rev.: B-

M000139

HENRIKSEN

REDUCING OPERATIONAL RISK

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GENERAL

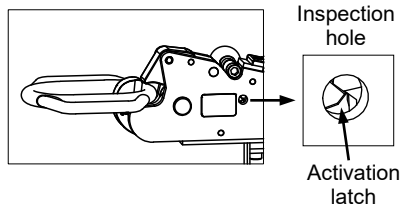
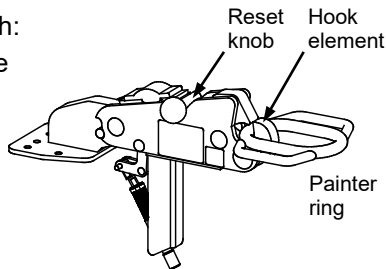
- Read this user manual carefully before you use the hook and save it for future reference.
- Operational scenarios with corresponding risk evaluations must be well known for the operators.
- It is important that the hook is inspected and maintained periodically to ensure a safe and well-functioning equipment.
- Monthly controls by the operators are limited to visual check and practical operations.
- All necessary service and maintenance shall be carried out by authorized service personal annually and by 5-years controls. On-line annual inspection course for Henriksen hooks is available on the internet, please check our website for more information.
- Contact the manufacturer in case of any visible damage and/or if malfunction occurs.
- Any unauthorized repair, service and/or parts used in the hook will violate the warranty.

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LAUNCH

1 Check the following before launch:

- the hook and the remote cable are not damaged
- the hook element is in locked position
- the reset knob is in the back position, refer to the illustration
- you can clearly see the activation latch in the inspection hole, refer to the illustration
- the painter ring is properly placed
- the hook is free of any impurities or ice

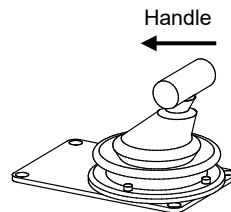


Use metal rings only!

2 Continue with the launch process as described in steps 1 - 5 in the "Safe Launch" section.

3 Release the painter line when the boat and the crew is ready.

Pull the painter remote release handle – refer to the illustration – to open the painter hook and release the painter line.



WARNING:

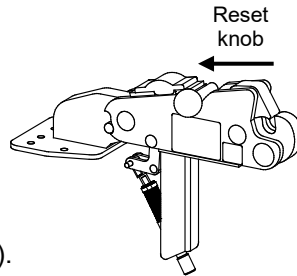
Do not open the painter hook before the lifting hook has released the lifting ring!

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RESET

- 1 Push the reset knob to the closed position, and verify by hand that the reset knob is properly locked.

Make sure that you can clearly see the activation latch in the inspection hole.
(See step 1 at the Launch section).

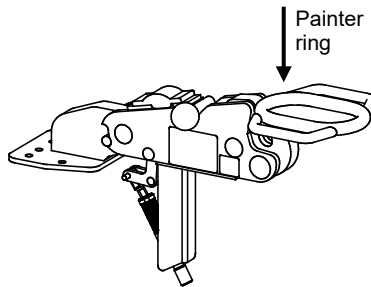


RECOVERY

- 1 Check visually that the hook is not damaged.

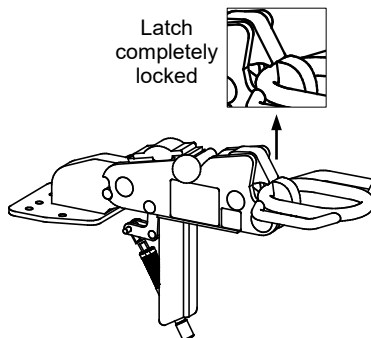
Make sure that the hook is reset.

Place the painter ring properly into the jaw of the hook.



- 2 Make sure that the latch is completely locked, refer to the illustration.

The hook is ready to recover the boat.



NOTE: See the “SAFE USE” chapter at the end of the manual for the recommended lifting operations.

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GENERAL CONSIDERATIONS

- 1** Mount the painter hook on an area that is strong enough to withstand the forces the painter hook is exposed to.
- 2** Make sure that the operation angle of the painter line is within the operational angle of the painter hook (from horizontal up to 35 degrees).
- 3** Make sure that the painter hook operator can get access to the painter hook easily and can connect the painter ring safely during recovery.
- 4** Consider the ergonomical details before mounting the remote unit with the push / pull cable. It shall be easy to install, remove, adjust and safe to operate the remote unit.
- 5** Make sure that the minimum bending radius of the push/pull cables will be more than 127 mm / 5 inches (for standard cables) or 76 mm / 3 inches (for arctic cables) after the cables are installed.
- 6** Make sure that there is no tension in the cable in any position of the hook.
- 7** Use an installation path for the cable that prevents tripping hazard and protect the cable against wear and tear.
- 8** Consider prevention against impurities and icing on the hook.
- 9** We strongly recommend to use standard Henriksen Painter Rings, because the ring dimensions are designed to **geometrically fit** together with the Henriksen Hooks.
See more details in our **HPR** document.

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RECOMMENDED BOLTS

Hook type	SWL (kg)	Bolts* and locknuts dimensions	Max. torque (Nm)
HPHST 2,5	2500	M8 A4-80	22
HPHH 2,5	2500	M8 A4-80	22
HPHR 2,5	2500	M8 A4-80	22
HPHV 2,5	2500	M8 A4-80	22

* The length is specified by the boat builder.

WARNING:

Use only recommended bolts, locknuts and torques.

Always use new locknuts and washers.

Use correct type of M6 / Ø6 countersunk screw (depending on the board material) to fasten the remote unit.

REMOTE CABLE OVERVIEW

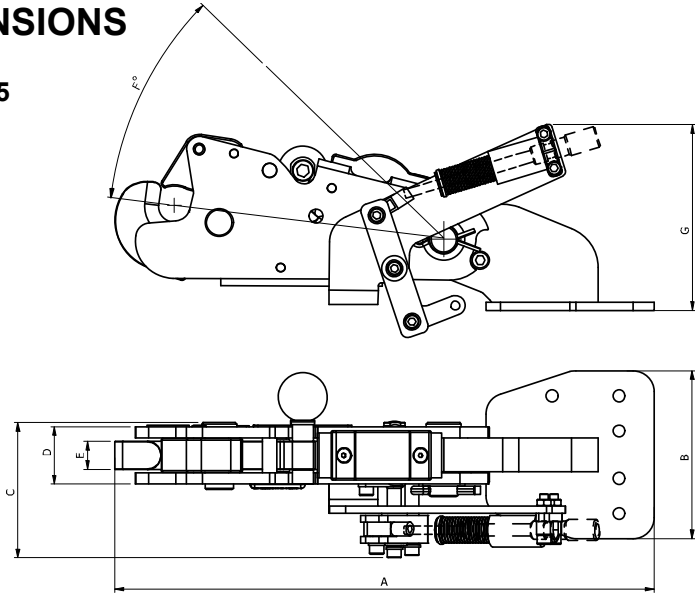
Hook type	Hook part number	Cable part number	
		Standard	Arctic*
HPHH 2,5	HH001543	HH090046	HH2501XX
HPHR 2,5	HH000103	HH090046	HH2501XX
HPHV 2,5	HH001543	HH090046	HH2501XX

* Cables with reduced minimum bending radius requirements.
The last two digits (XX) in the part number describe the cable length in 0,5 m increments: "10" stands for 1,0 m, "15" stands for 1,5 m, etc.
Example: HH253020 is a cable with a length of 2,0 m.

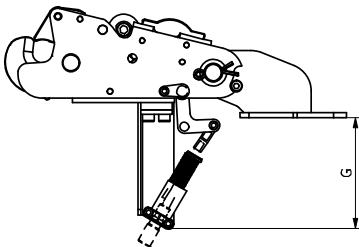
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DIMENSIONS

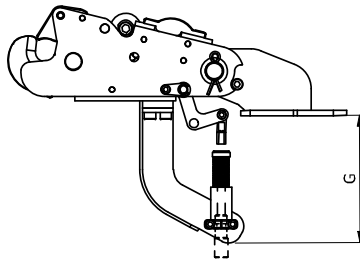
HPHH 2,5



HPHR 2,5



HPHV 2,5



PART NO.	HOOK	SWL	A	B	C	D	E	F	G	WEIGHT
HH001543	HPHH 2,5	2 500 kg	384	120	97	41	20	37°	128	7,15 kg
HH000103	HPHR 2,5	2 500 kg	384	120	97	41	20	37°	140	6,64 kg
HH001542	HPHV 2,5	2 500 kg	384	120	97	41	20	37°	144	6,88 kg

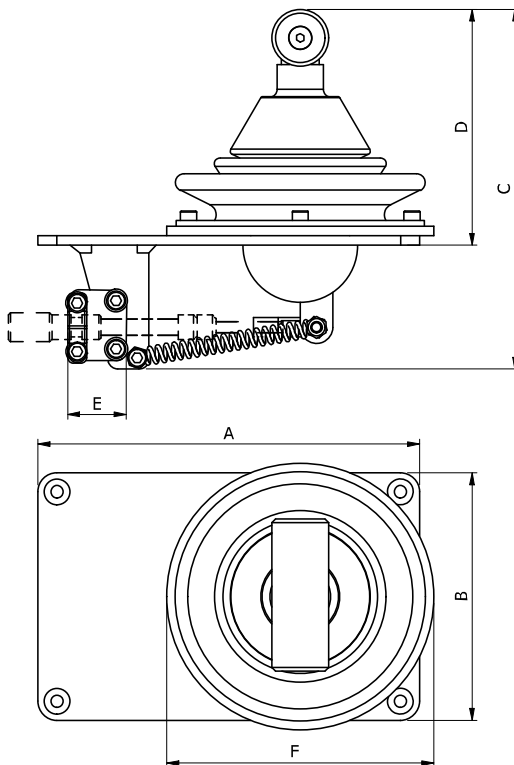
NOTE: Detailed drawings and 3D models are available on request.



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DIMENSIONS

REMOTE UNIT



PART NO.	For SWL	A	B	C	D	E	F	WEIGHT
HH000057	2 500 kg	200	130	189	124	30	Ø140	2,45 kg

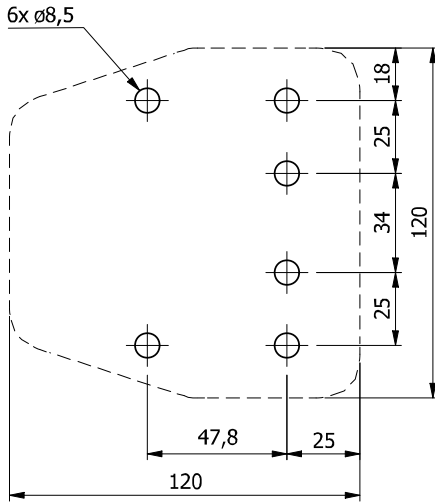
NOTE: Detailed drawings and 3D models are available on request.



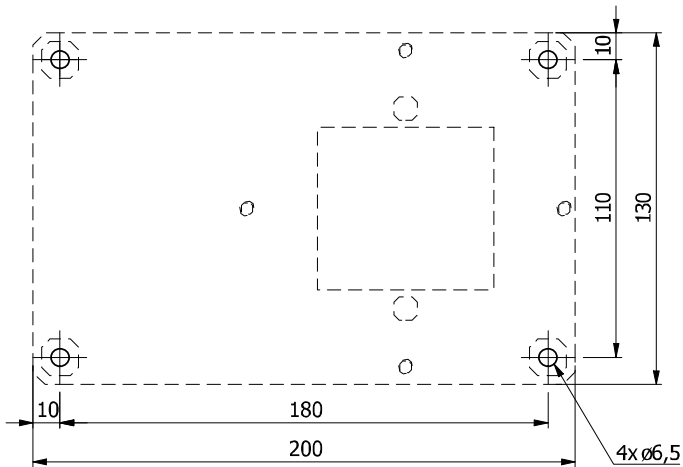
HPH 2,5

HOLE POSITIONS

HOOK



REMOTE UNIT



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REMOTE HANDLE WITH CABLE

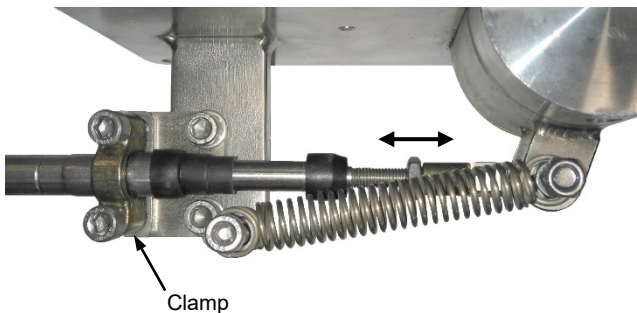
- 1 Make sure that the nut is installed on this end of the cable.



- 2 Attach the cable attachment to the cable, refer to the illustration.



- 3 Install the cable in the clamp of the remote unit, refer to the illustration.



Change the position of the cable attachment and the nut on the cable end to adjust the operational range of the remote handle.

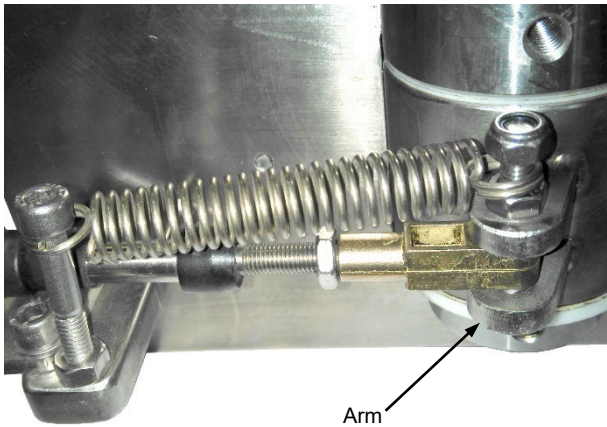
Make sure that cable is minimum 5 mm deep inside the cable attachment.

Lock the cable attachment with the nut after the adjustment is completed.

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REMOTE HANDLE WITH CABLE

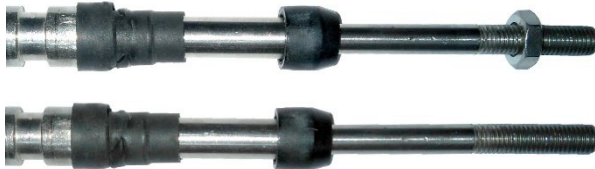
- 4 Install the cable attachment with the cable on the arm of the remote unit, refer to the illustration.



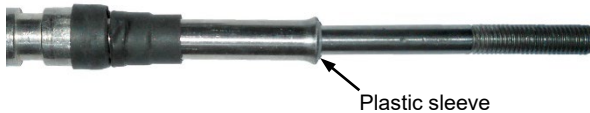
HPH 2,5

PAINTER HOOK WITH CABLE

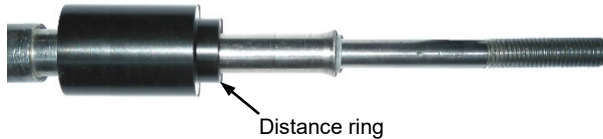
1 Remove the nut from the cable.



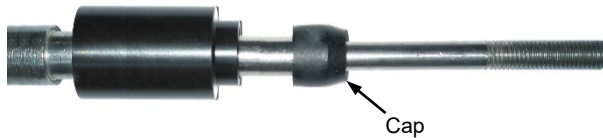
2 Remove the cap from the cable. Keep the plastic sleeve in place.



3 Put the large plastic distance ring on the cable.



4 Put the cap back on the cable.



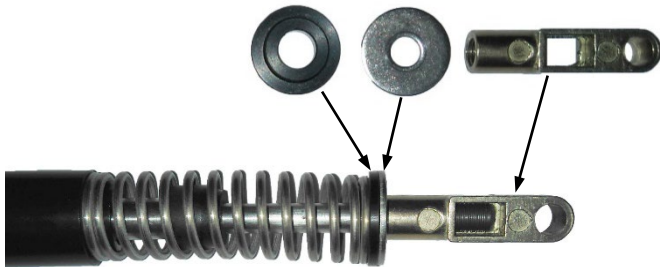
5 Put the spring on the cable.



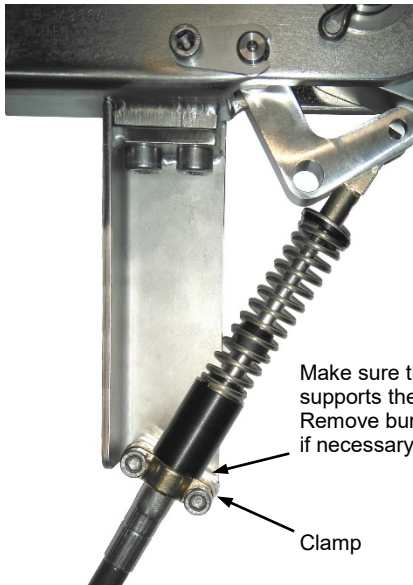
HPH 2,5

PAINTER HOOK WITH CABLE

- 6** Put the plastic washer, the metal washer and the cable attachment on the cable, refer to the illustration.



- 7** Install the cable in the clamp of the hook, refer to the illustration.



Make sure that the clamp properly supports the distance ring. Remove burrs from the clamp if necessary.

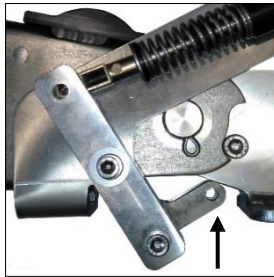
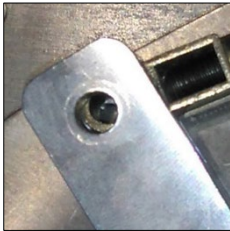
Clamp

HPH 2,5

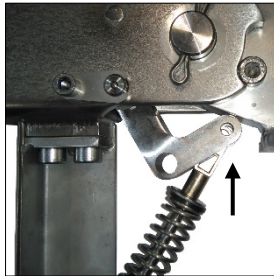
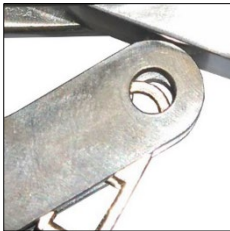
PAINTER HOOK WITH CABLE

- 8** Make sure that the release arm on the hook can rotate further against the hook than the cable would allow when the remote handle is not pulled, refer to the illustration.

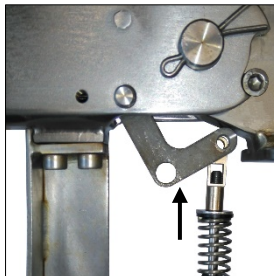
HPHH 2,5



HPHR 2,5



HPHV 2,5

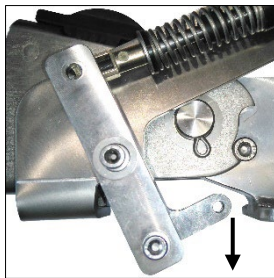
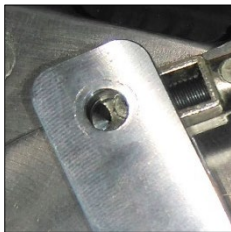


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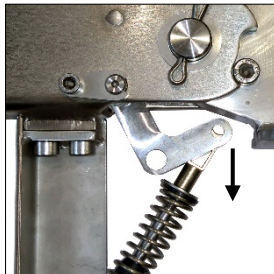
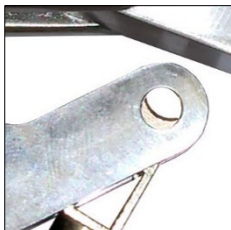
PAINTER HOOK WITH CABLE

- 9** Make sure that the release arm can rotate further away from the hook to touch the resistance point than the cable would allow when the remote handle is not pulled, refer to the illustration.

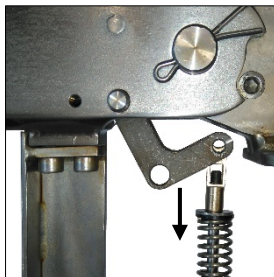
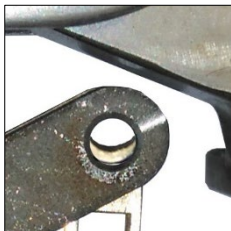
HPHH 2,5



HPHR 2,5



HPHV 2,5

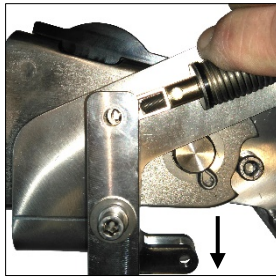


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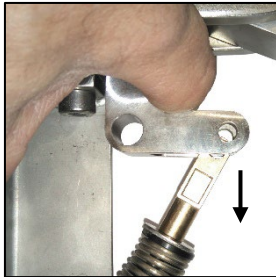
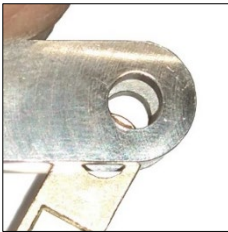
PAINTER HOOK WITH CABLE

- 10** Pull the remote handle and press the arm on the hook away from the hook at the same time, refer to the illustration. Check that the spring is still not fully compressed when you pull the remote handle, and the cable attachment can move further away than the arm would allow.

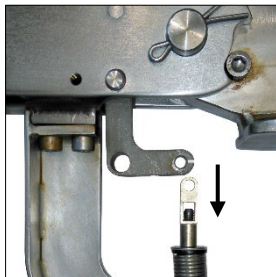
HPHH 2,5



HPHR 2,5



HPHV 2,5

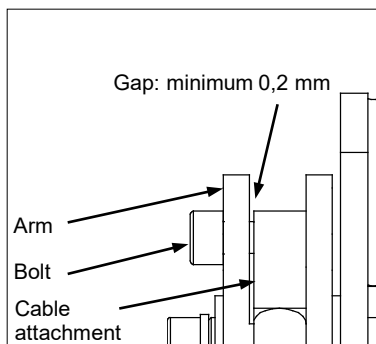
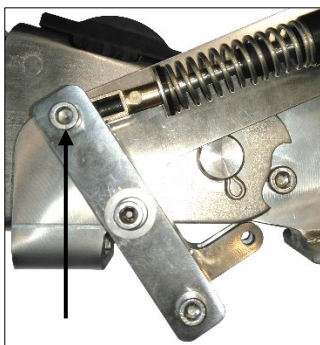


HPH 2,5

PAINTER HOOK WITH CABLE

- 11** Install the cable attachment with the cable on the arm of the hook, refer to the illustration.

HPHH 2,5

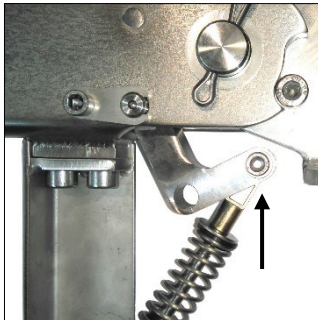
**Installation process for HPHH 2,5:**

- Carefully clean both the inside tread at arm of the hook and the outside tread of the bolt, using brake cleaner and a dry cloth. Then apply activator Loctite 7649 or 7471.
- Apply a drop of Loctite 2701 or equivalent to the first 3-4 treads of the bolt.
- Install the cable attachment with the cable and bolt. Apply the bolt by fingers, till locked.
- Then tighten between 45 degrees and max. 90 degrees with a suitable tool.
- Check the gap between the cable attachment and the flange of the arm by using a feeler gauge. The gap should be minimum 0,2 mm, refer to the illustration above.

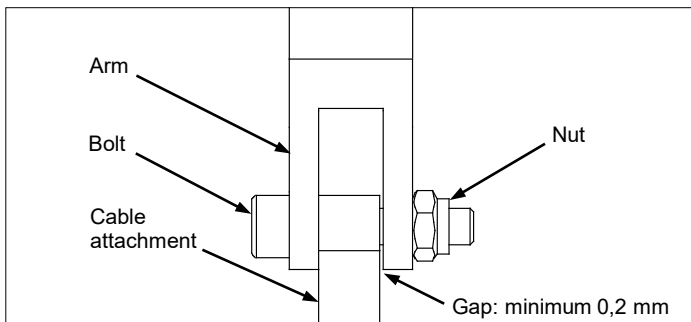
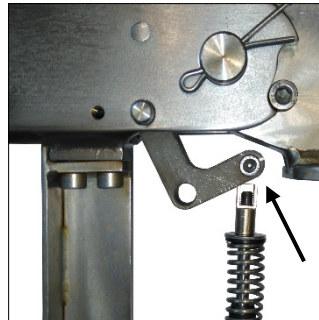
HPH 2,5

PAINTER HOOK WITH CABLE

HPHR 2,5



HPHV 2,5



Installation process for HPHR 2,5 and HPHV 2,5:

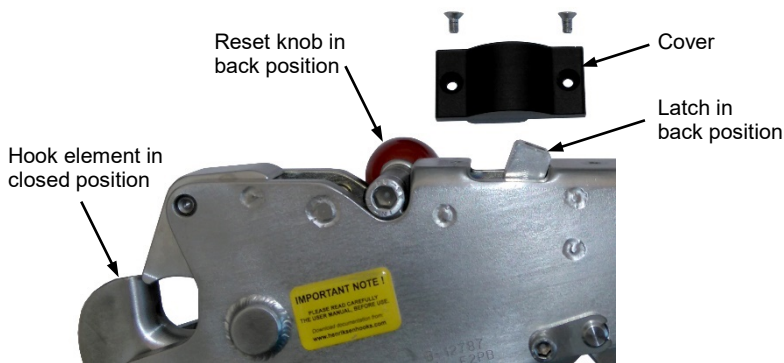
- Install the cable attachment with the cable and the bolt with the nut. Tighten the nut until both the nut and the head of the bolt touch the arm.
- Check the gap between the cable attachment and the flange of the arm by using a feeler gauge. The gap should be minimum 0,2 mm, refer to the illustration above.

HPH 2,5

TEST

After the installation make sure that:

1. The arm has free movement between the higher and the lower end positions.
2. The spring is still not fully compressed when the arm is at the lower end position.
3. The rubber caps are still properly placed on both ends of the cable after the installation.
4. Remove the cover, refer to the illustration below.
5. Close the hook and check that both the reset knob and the latch is in the back position, refer to the illustration.
6. Apply a small amount of CRC Dry Lube or equivalent inside the hook around the latch.
7. Apply a drop of Loctite 243 on the bolts and mount the cover back onto the hook after testing.



HPH 2,5

FUNCTIONAL TEST

Do a functional test of the following after mounting the painter hook and the remote unit on the boat:

- The reset knob can be set to locked position.
- The hook element can open fully.
- The ring shall be inserted simply and safely.
- The cable moves freely.
- The remote handle shall have a free movement (min. 10° angle) before you can feel the resistance point caused by the release mechanism in the hook.
- The hook opens immediately when you pull the remote handle.
- The remote handle goes back fully to the closed position after you release it.

Do a functional test of the following when the boat is waterborne:

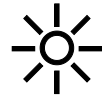
- The operation angle of the painter line is within the operational angle of the painter hook.
- It is safe to reset the painter hook and connect the painter ring.
- It is safe to release the boat at operational speed (under load).

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



HPH 2,5

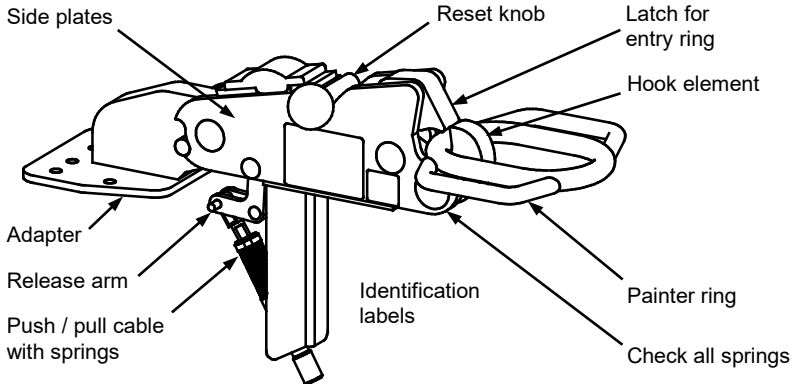
1 For safety reasons carry out the control in good lighting conditions.



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!

HPH 2,5

- 4** Check the following:
- The cable moves freely.
 - The reset knob can be set to locked position.
 - The hook opens immediately when you pull the remote handle.
 - The remote handle goes back fully to the closed position after you release it.
 - The hook element can open fully.
 - The ring shall be inserted simply and safely.
 - Perform the test as described at step 4 – 6 on page 19.

5 DO NOT PAINT ANY PART OF THE HOOK!

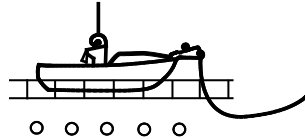


Contact the manufacturer in case of any deviation!

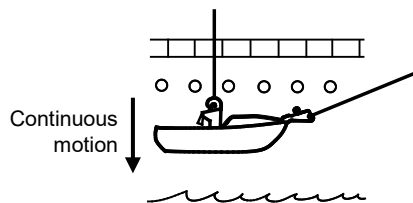
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SAFE LAUNCH

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 and continue the launch process.

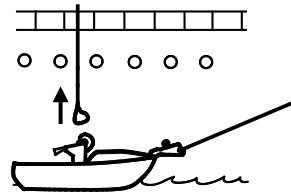
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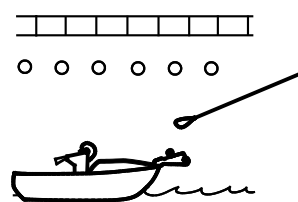
HPH 2,5

SAFE LAUNCH

4 When the boat is waterborne and the lifting hook has released the lifting ring, the crane operator lifts the lifting line to avoid collision with the boat or the crew.



5 The coxswain or the hook operator releases the painter line when the boat and the crew are ready.



6 The coxswain maneuvers the boat ahead and away from the vessel.

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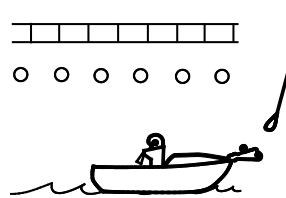


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SAFE RECOVERY

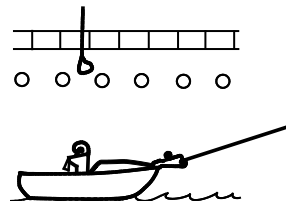
1 The operators make sure that both the lifting hook and the painter hook are reset.

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



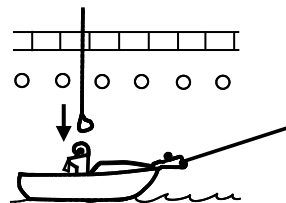
3 The hook operator connects the painter line. The coxswain aligns the direction of the boat to the direction of the vessel.

4 The coxswain reduces the speed of the boat and the painter line is tensioned. The coxswain then makes sure to keep the correct direction of the boat and tension in the painter line.



The boat shall then be in the correct position below the lifting rings.

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



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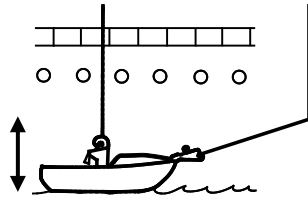


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SAFE RECOVERY

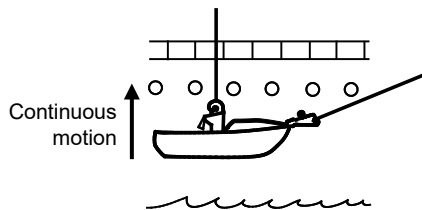
6 The hook operator connects the lifting ring and gives a signal to the crane operator.

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

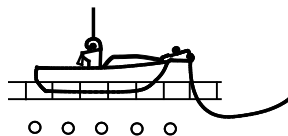


7 The hook operator stands back and takes a safe stand-by position.

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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