

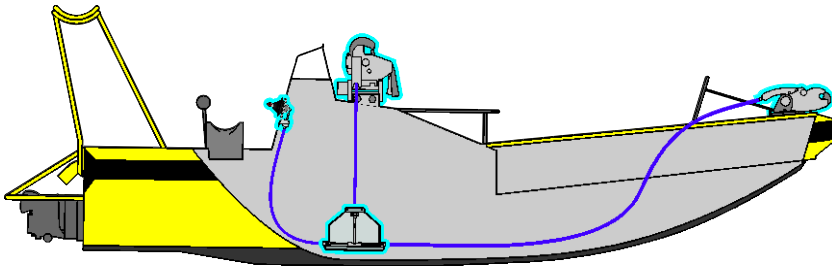
HENRIKSEN HOOKS

HOOKS
HENRIKSEN HOOKS

IHS

INTEGRATED HENRIKSEN SYSTEM

MECHANICAL EDITION



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Rev.: -3

M000441

HENRIKSEN

REDUCING OPERATIONAL RISK

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IHS

LAUNCH

- 1** Check that the lifting hook and the painter hook are reset.
- 2** Check that the IHS does not let the painter hook open by pulling the painter remote handle.
- 3** Start and follow the launch procedures as described in the respective hook manuals.
- 4** The IHS will let the painter hook open only when the lifting hook is open.

RESET

- 1** Start and follow the reset procedures as described in the respective hook manuals.
- 2** When all the hooks are reset, check that the IHS does not let the painter hook open by pulling the painter remote handle.

RECOVERY

- 1** Start and follow the recovery procedures as described in the respective hook manuals.

IHS

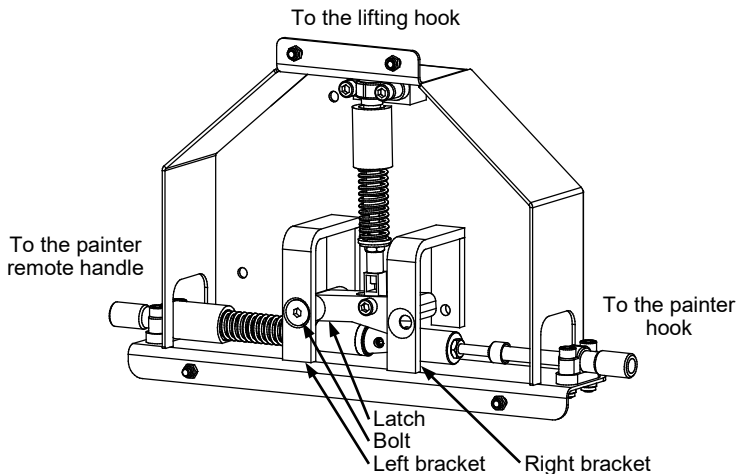
GENERAL CONSIDERATIONS

- 1** Use only original Henriksen products when:
 - building-up the system
 - in case one of the components shall be replaced.
- 2** Consider the ergonomical details before mounting the components of the IHS on the boat. It shall be easy to install, maintain and remove the system.
- 3** Make sure that there is enough place for the IHS bracket mounted on the lifting hook to operate properly.
- 4** Consider correct drainage and protection against water ingress before mounting of the control box.
- 5** Use an installation path for the cables that prevents tripping hazard, and protects the cables against wear and tear.
- 6** Make sure that the minimum bending radius of the push/pull cables will be more than 150 mm / 6 inch during assembling and after the cables are installed.
- 7** Consider prevention against icing on the control box and the hooks.

IHS

PREPARATION

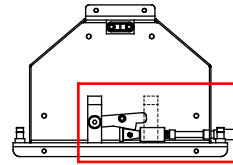
- 1 The IHS is normally delivered as a complete assembly.
We recommend to disassemble and install the cables at the hook sides if it is necessary when installing the IHS components.
- 2 Mount the IHS box, place the cables and mount the hooks and the remote handle onto boat before connecting the cables.
The latch is attached to the left bracket as default, but you can rotate and attach it to the right bracket if the painter cables are in the symmetrical position. Apply Loctite 243 on the bolt.
- 3 In case of cable replacement, install the cables in the following order:
 1. IHS cable between the painter hook and the IHS control box.
 2. IHS cable between the painter remote handle and the IHS control box.
 3. IHS cable between the lifting hook and the IHS control box.
- 4 Install the IHS cables on the painter hook side and on the painter remote unit side as described in the respective painter hook manuals.



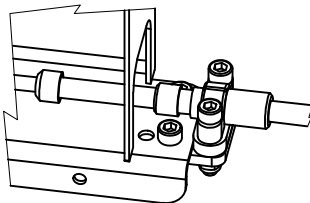
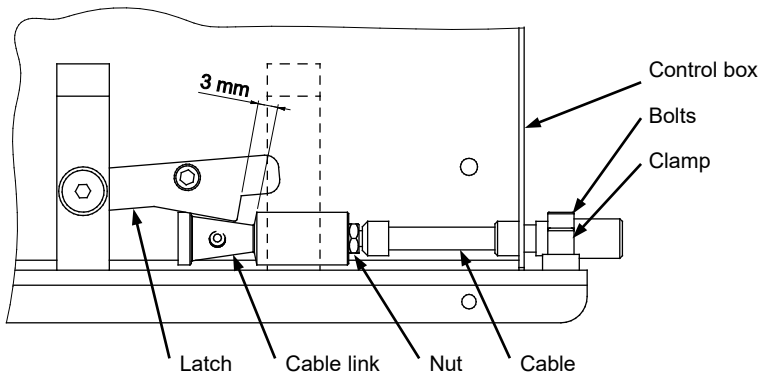


IHS

IHS CABLE FOR THE PAINTER HOOK



- 1 Remove the lid from the control box.
- 2 Attach the nut and the cable link onto the painter hook cable end. Make sure that the cable goes minimum 5 mm deep in the cable link.
- 3 Place the cable into the control box through the hole on the box.
- 4 Attach the cable with the clamp at the inner mounting holes* onto the control box, but do not tighten yet.

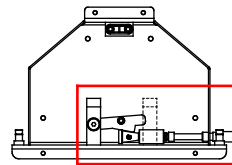


* In case a HPHRH 5 painter hook shall be connected, use the outer mounting holes with the additional mounting plate to mount the clamp with the cable.

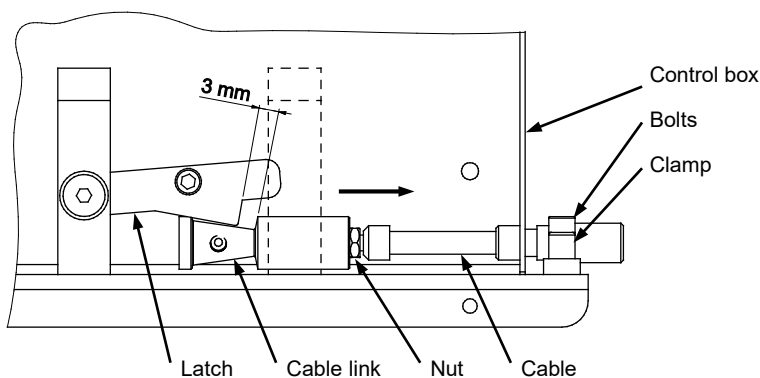


IHS

IHS CABLE FOR THE PAINTER HOOK

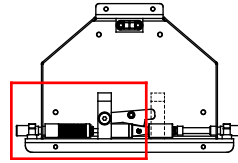


- 5 Push the cable completely towards the painter.
- 6 Adjust the position of the link on the cable to have a 3 mm clearance between the latch and the cable link.
- 7 Lock the cable with the clamp onto the control box, apply Loctite 243 or equivalent on the bolts.
- 8 Lock the cable link with the nut.
- 9 Connect the cable to the painter hook as described in the painter hook user manual.

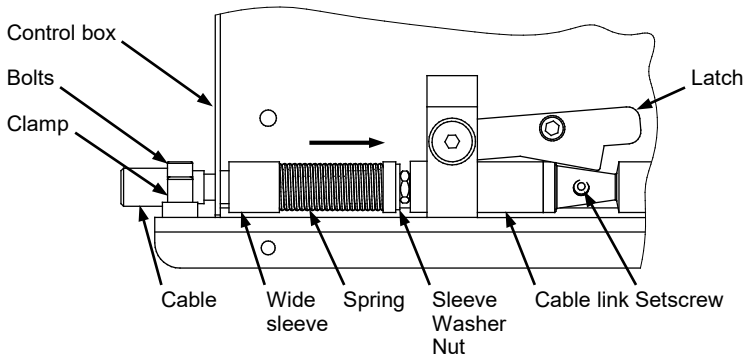


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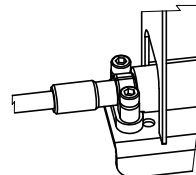
IHS CABLE FOR THE PAINTER REMOTE HANDLE



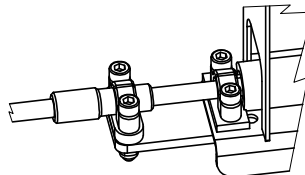
- 1** Place the wide sleeve / spring / sleeve / washer / nut / cable link in this order on the painter remote handle cable end. Make sure the cable goes minimum 5 mm deep in the cable link.
- 2** Place the cable into the control box through the hole on the box.
- 3** Attach the cable with the clamp onto the control box* **, but do not tighten yet.



* Use the outer mounting holes to mount the clamp with the cable.



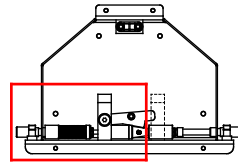
** In case a remote unit for the HPHRH 5 painter hook shall be connected, use the outer mounting holes with the additional mounting plate to mount the clamp with the cable.



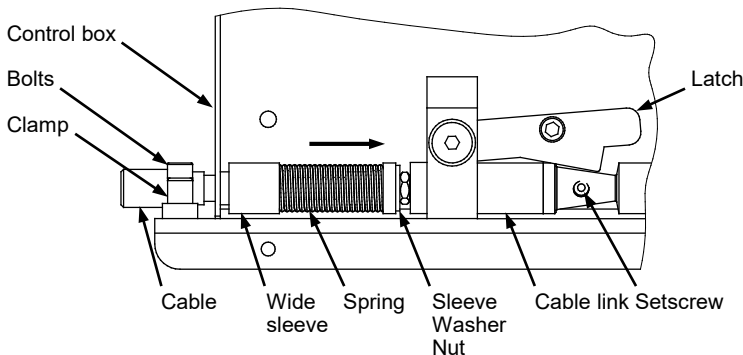


IHS

IHS CABLE FOR THE PAINTER REMOTE HANDLE



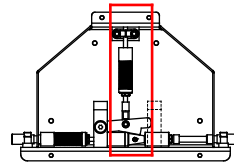
- 4** Push the painter hook cable towards the painter hook and keep it in this position.
- 5** Pull the remote handle cable towards the latch to its end position.
- 6** Adjust the position of the cable link to match with the other cable link and connect the two link elements with the setscrew, apply Loctite 243 or equivalent on the setscrew.
- 7** Lock the cable link position with the nut.
- 8** Connect the cable to the remote handle as described in the painter hook user manual.
- 9** Lift the latch and test the painter remote function. Make sure that the spring is not fully compressed when the painter remote handle is in open position. Adjust the position of the nut and the cable link if necessary.
- 10** Lock the cable with the clamp onto the control box, apply Loctite 243 or equivalent on the bolts.



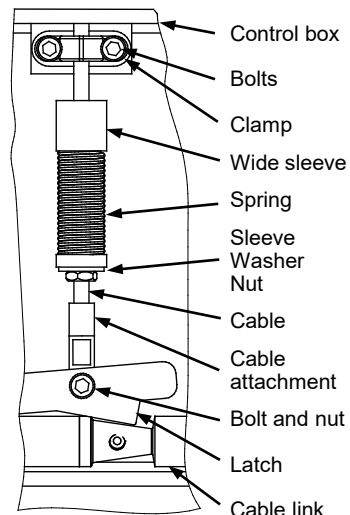


IHS

IHS CABLE FOR THE LIFTING HOOK

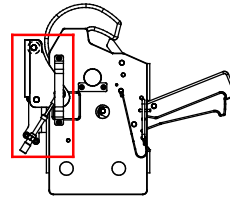


- 1** Place the cable end into the control box through the hole on the box.
- 2** Place the wide sleeve / spring / sleeve / washer / nut in this order on cable end.
- 3** Attach the cable attachment onto the cable end and make sure the cable goes minimum 5 mm deep in the attachment.
- 4** Attach the cable with the clamp onto the control box, but do not tighten yet.
- 5** Adjust the position of the cable attachment to have at least 1 mm difference between the centers of the hole on the latch and the hole on the attachment.
The latch shall be pressed a bit against the painter cable link when the attachment and the latch is connected.
- 6** Connect the latch and the attachment with the bolt and lock it with the nut.
- 7** Lock the cable attachment with the nut.
- 8** Lock the cable with the clamp onto the control box, apply Loctite 243 or equivalent on the bolts.

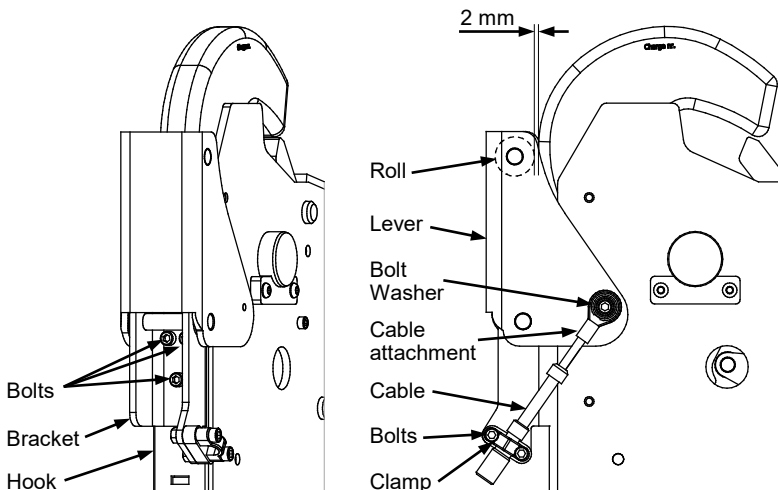


IHS

IHS CABLE ON THE LIFTING HOOK



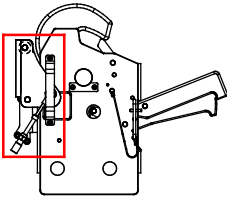
- 1** Make sure that the lifting hook is closed.
- 2** Check that the lever of the IHS bracket can rotate smoothly.
- 3** Mount the IHS bracket onto the hook, apply Loctite 243 or equivalent on the bolts.
- 4** Attach the IHS cable with the clamp onto the bracket, but do not tighten yet.
- 5** Connect the cable attachment onto the cable end (do not use a nut). Make sure that the cable goes minimum 5 mm deep in the attachment.
- 6** Connect the cable attachment with the bolt and the washer to the lever of IHS bracket. Make sure that there is a 2 mm clearance between the hook element and the roll of the IHS bracket, refer to the illustration. Adjust the position of the attachment if necessary.



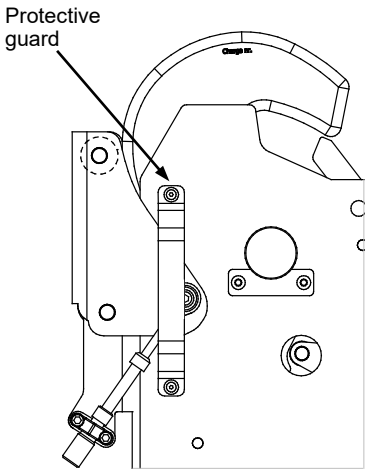
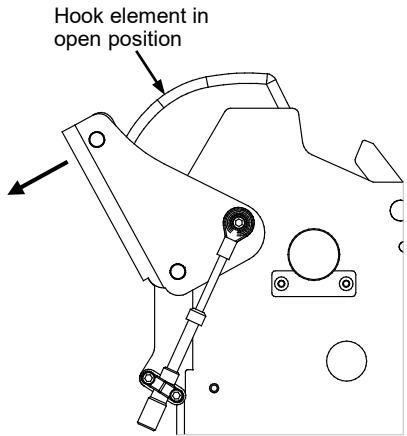


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IHS CABLE ON THE LIFTING HOOK



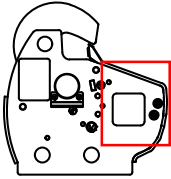
- 7** Open the hook carefully and check that the lever of the IHS bracket can rotate more in the opening direction when the hook element stops in the open position, refer to the illustration.
- 8** Lock the cable with the clamp onto the hook, apply Loctite 243 or equivalent on the bolts.
- 9** Close the hook.
- 10** Lock the protective guard onto the hook, apply Loctite 243 or equivalent on the bolts.



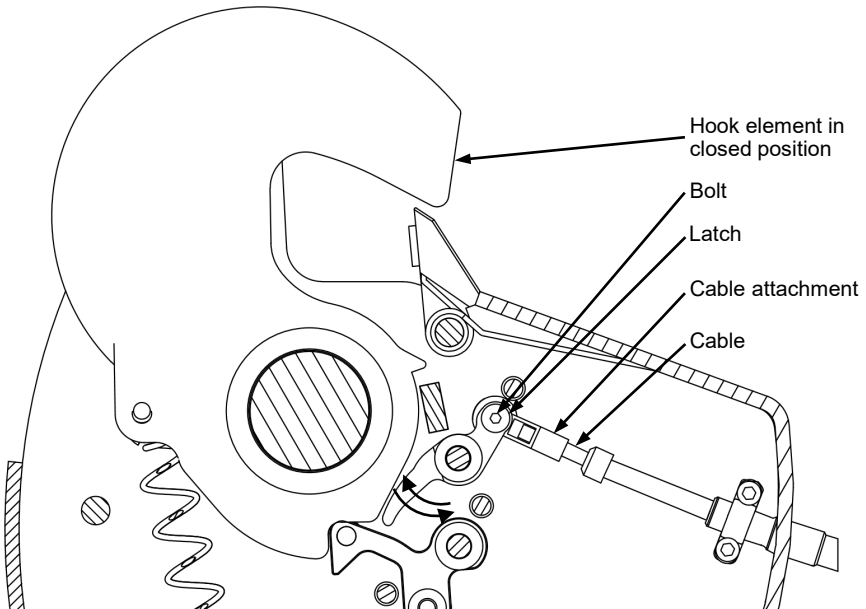


IHS

IHS CABLE ON THE LIFTING HOOK HMKRHI 12



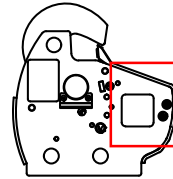
- 1** Make sure that the hook is closed and check that the latch can rotate between its two end position, refer to the illustration.
- 2** Connect the cable attachment onto the cable end (do not use a nut). Make sure that the cable goes as deep as possible in the attachment.
- 3** Connect the cable attachment with the bolt to the latch, apply Loctite 243 or equivalent on the bolt.



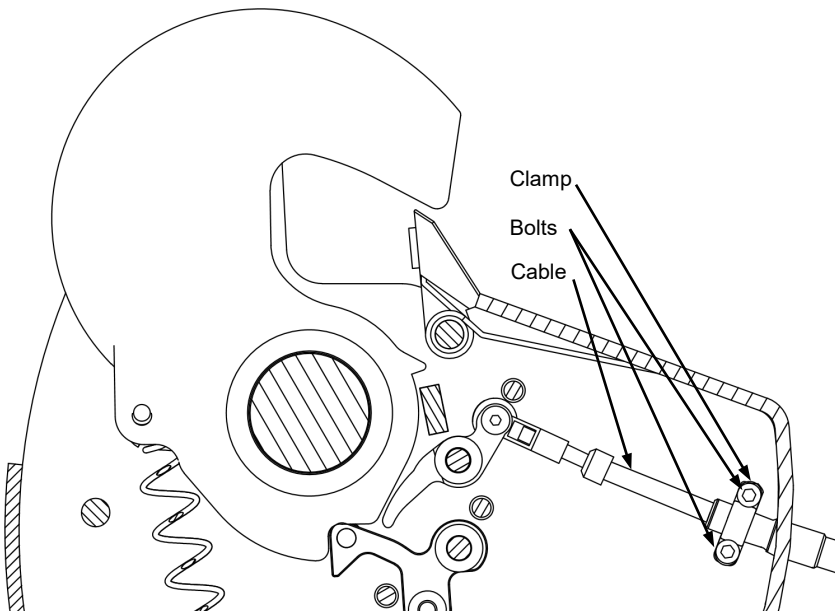


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IHS CABLE ON THE LIFTING HOOK HMKRHI 12



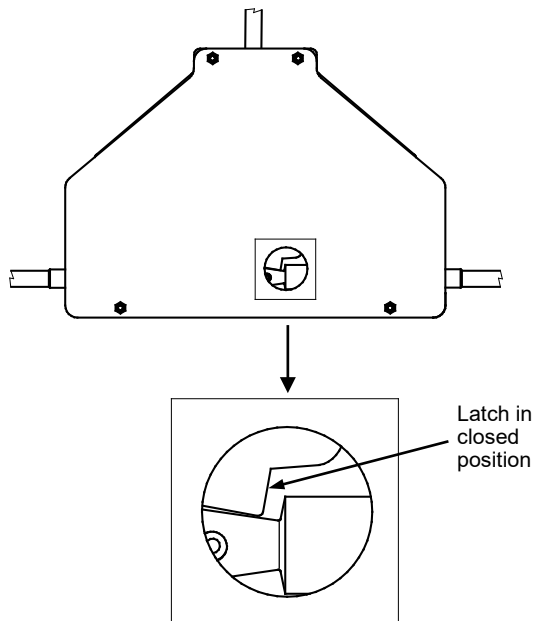
- 4** Lock the cable with the clamp onto the hook, apply Loctite 243 or equivalent on the bolts.
- 5** Check that the latch in the IHS box is pressed a bit against the painter cable link when the hook is closed, see step 5 on page 9.
- 6** Adjust the position of the cable attachment in the IHS box if necessary, see step 3 on page 9.



IHS

IHS CONTROL BOX

- 1 Mount the lid onto the control box.
- 2 Make sure that the latch is visible through the peek hole, refer to the illustration.



FUNCTIONAL TEST

Make sure that the hooks and all the additional components are properly installed.

Do functional tests on the hooks as described in the respective hook manuals and do a functional test of the following:

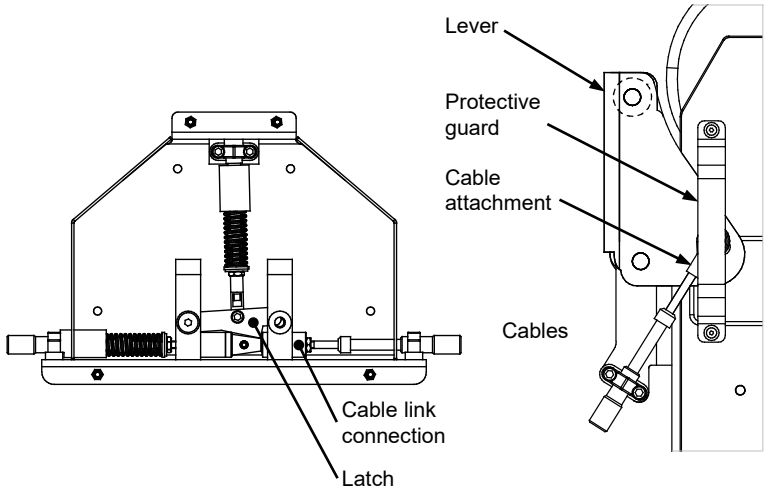
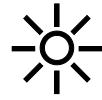
- Check that it is not possible to open the painter hook when the lifting hook is in closed position. It is possible to pull the remote handle of the painter hook and the handle can move a little, but you can not pull the handle totally to its open position as the movement is blocked by the latch in the IHS control box.
- Open slowly the lifting hook and make sure that the hook element can move to the open position completely while the hook element pushes the lever of the IHS bracket on the hook towards the open position.
- Check that it is possible to open the painter hook only when the lifting hook is open.
- Move the hook element to the closed position and make sure that the lever of the IHS bracket moves to its closed position. Make sure that the latch in the IHS control box moves completely to the closed position and does not let the painter hook open.

We recommend to prevent the hooks and the control box against any ice to build up.



IHS

- 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:



MONTHLY CONTROL

Contact the manufacturer in case of any deviation!

IHS

- 4** Do functional tests on the hooks as described in the respective hook manuals and do a functional test of the following:
- Check that it is not possible to open the painter hook when the lifting hook is in closed position. It is possible to pull the remote handle of the painter hook and the handle can move a little, but you can not pull the handle totally to its open position as the movement is blocked by the latch in the IHS control box.
 - Open slowly the lifting hook and make sure that the hook element can move to the open position completely while the hook element pushes the lever of the IHS bracket on the hook towards the open position.
 - Check that it is possible to open the painter hook only when the lifting hook is open.
 - Move the hook element to the closed position and make sure that the lever of the IHS bracket moves to its closed position. Make sure that the latch in the IHS control box moves completely to the closed position and does not let the painter hook open.

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

5 DO NOT PAINT ANY PART OF THE IHS!



Contact the manufacturer in case of any deviation!