MAINFURL

OWNER'S HANDBOOK

- ELECTRIC VERSION -

This manual describes normal use and handling of the Mainfurl furling boom - in electrical versions - under various conditions.

Read the handbook carefully in its entirety, and you will have the optimal basis for getting the most enjoyment from this high-end equipment.

DISCLAIMER

This manual:
The manual contains information about the normal use and handling of the Mainfurl furling boom under various conditions.

It is important that the boat is prepared correctly for our furling boom and that the selection of solutions is thoroughly considered. It must be ensured that the mainsheet can run freely and that the sail fits the size of the boom, and it is crucial that we receive the necessary measurements completely accurate.

Mainfurl is not responsible for the selection of poor solutions nor for any errors and deficiencies resulting from inaccuracies in the received measurements.

Installation:
Installation of the mast track and boom should only be carried out by a person with experience, such as an experienced rigger. An experienced rigger should have knowledge and understanding of rigging in general.
Mainfurl is not responsible for personal injury or damage to property resulting from incorrect installation. Mainfurl also does not accept claims arising from improper installation, and these are not covered by the warranty.

Use and handeling:
Read this manual carefully before you start using the furling boom. The manual contains important operating instructions, and it is crucial that you learn how to use the Mainfurl furling boom before taking your boat to opens waters.

The operator is expected to have sailing experience and knowledge of common procedures for safe sailing. The operator is also expected to have an understanding of handling a sailing boat, including hoisting and reefing a sail.

All information and guidance in this manual are based on the use of the boom under normal conditions. It is solely the owner's and operator's responsibility to assess the conditions in which they are sailing and to take the necessary precautions. The owner and operator always have full responsibility for safety on board. Mainfurl is not responsible for damages resulting from incorrect operation caused by the owner or user, including sailing without taking the necessary precautions to avoid damage.

The purpose of this manual is to provide the owner and the user with appropriate instructions and information before using the boom.

We strongly advise that all information in this manual is read and fully understood before using the boom.

Mainfurl has no control of the use of the boom and it is therefore the owner's and user's responsibility to become comfortable with handling the boom under various conditions.

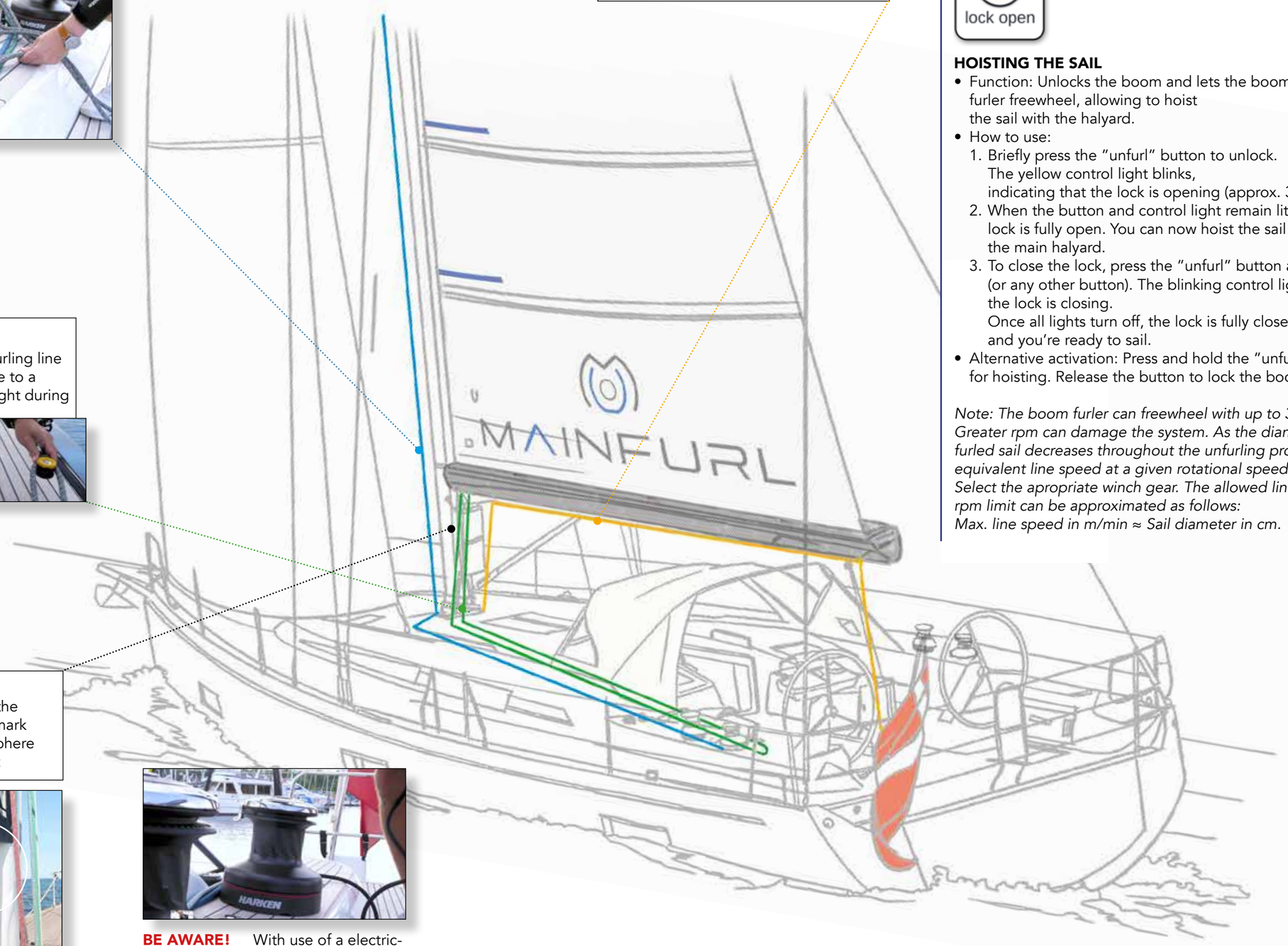
STARTING POINTS

HOISTING THE MAIN SAIL

1 Main halyard
Feed the winch with the main halyard.

2 Continious furling line
Open the clutch for the furling line and attatch the furling line to a snatch block, to keep it tight during hoisting.

3 Main Sheet
The main sheet has to be eased off, i.e. has to be taken off the winch to enable the boom to move free



! Position of the vang
To have the right angle of the boom - we recommend a mark on the vang line or a red sphere against a mark on the mast

BE AWARE! With use of a electric- og hydraulic winch;
- Look up and pay attention!

RECKMANN

HOISTING THE SAIL

- Function: Unlocks the boom and lets the boom furler freewheel, allowing to hoist the sail with the halyard.
- How to use:
  1. Briefly press the "unfurl" button to unlock. The yellow control light blinks, indicating that the lock is opening (approx. 3 sec).
  2. When the button and control light remain lit, the lock is fully open. You can now hoist the sail with the main halyard.
  3. To close the lock, press the "unfurl" button again (or any other button). The blinking control light indicates the lock is closing. Once all lights turn off, the lock is fully closed, and you're ready to sail.
- Alternative activation: Press and hold the "unfurl" button for hoisting. Release the button to lock the boom.

Note: The boom furler can freewheel with up to 35 rpm. Greater rpm can damage the system. As the diameter of the furled sail decreases throughout the unfurling process, so does the equivalent line speed at a given rotational speed.
Select the apropriate winch gear. The allowed line speed for the 35 rpm limit can be approximated as follows:
Max. line speed in m/min ≈ Sail diameter in cm.

FURLING THE MAIN SAIL

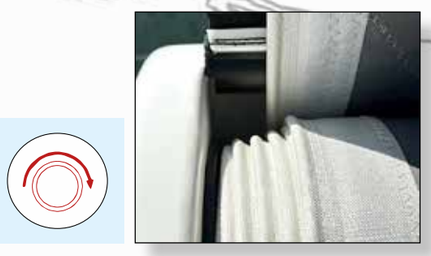
1 Main Sheet
Ease off the main sheet so there is no pressure in the main.

3 Main halyard
Be advised; Turn the main halyard one turn around a winch, to brake/ hold back, when you are furling the main sail - let the halyard run easily through your hand

2 Position of the vang
Release the vang so the boom is in the correct angle for furling

!! Boom
As the sail furls clock wise it is recommended to serve the winch on port side of the sail, which gives you a good overview and the ability to observe how the sail rolls in.

! Furling direction is <u>always</u> clockwise
Ease the halyard with a restance to ensure the luff is tight at all times when furling.



FURLING

- Function: Rolls the sail back onto the mandrel for storage or reefing.
- How to use:
  1. Press and hold the "furl" button. The yellow control light blinks as the lock is opening (approx. 3 sec).
  2. Once the control light is steady, the furling begins. Ease the halyard and adjust its tension to control the furling process.
  3. Release the "furl" button to stop. The control light blinks, indicating the lock is closing. When all lights are off, the lock is fully closed.
- Slow speed function: While holding the "Furl" button, additionally press the "flatten" button to reduce the furling speed. Release it to return to normal speed.

THE FLATTEN FUNCTION

- Function: Instantly furls the sail without the usual delay from opening the lock. The furling speed is slower compared to the regular furl function.
- Purpose: Tensioning the luff or making minor adjustments to the sail height such as positioning the sail precisely at a reef.
- How to use:
  1. Press the "flatten" button to tighten or pull down the luff.
  2. You will hear a clicking sound from the boom; this is normal.

Note: The operation of the flatten function is limited to 5 seconds per time.

REEFING THE MAIN SAIL

3 Main Sheet
Ease off the main sheet so there is no pressure in the main.

4 Position of the vang
Release the vang so the boom is in the correct angle for furling

2 Main halyard
Be advised; Turn the main halyard one turn around a winch, to brake/ hold back, when you are furling the main sail - let the halyard run easily through your hand

1 Continous furling line
Attatch to winch. Use starboard side of the furling line, to secure the furling direction is correct i.e. clockwise

NOTE! Always reef to a batten i.e the batten lies under the mandrel to secure that the foot of the mainsail remains tight.

!! Boom reefline
With the correct furling angle of the boom AND the mainsheet off the winch you can now furl the main sail to a position where you have a batten directly under the mandrel.

By having a batten directly under the mandrel you secure that the foot of the mainsail remains tight.

You can reef while you are sailing, go upwind and do as mentioned under #1, #2 and #3

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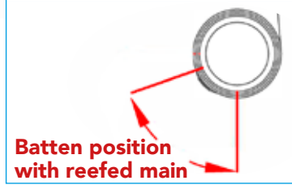


Reefing points:
To ensure a tight foot when sailing in reefed conditions reefing points are with a batten between 6 and 8 o´clock on the mandrel.

Markes on the main is a good way to refind these positions even by night.

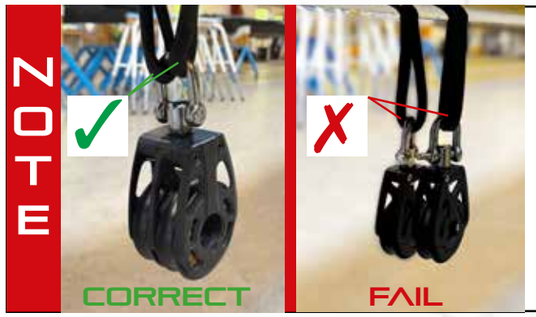
TIPS AND TRICKS

ID-no.;
In the unlikely event, of failure of your boom, and you need to contact Mainfurl; Please have the boom ID-no. ready. The number is located on the bearing at the outboard end.

Cleaning;
Please note; Never use organic solvents on the boom, as the paint/clear coat will be destroyed.

The boom should be washed with mild soap/boat shampoo and warm water.

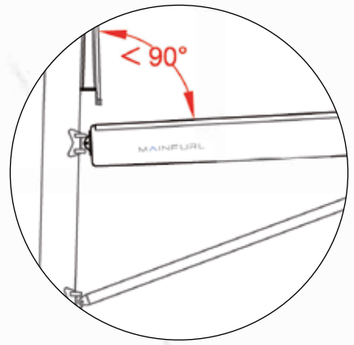
Removal of the boom
Remember to always remove the vertical pin on mast bracket - NOT the horizontal pin. I.e. it is the joint inside the mast bracket that must be released, let the toggle stay attatched to the boom.



It is important to check loops for wear regularly, as loops are a wearing part and should be replaced as soon as there are signs of tearing.

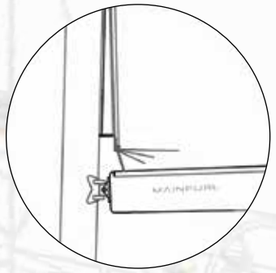
It is also extremely important to mount the block correctly in the loop.
- see picture.

The angle between track and boom must be 88-89 degrees.



If the boom is too high (<89 degrees), the mainsail will furl too far aft.

If the boom is too low (>89 degrees), the mainsail will furl too far forward.



If the sail show stretch wringles at the ffeder, reduce the resistance on the halyard. The amount of resistance on the halyard is key word for efficient furling.

When the boom is in the correct furling angle, you can control the movement forward and aft; If you hold too tight, the sail will furl aft, and too loose, the sail will furl forward.

In general; when the sail is fully hoist, you hold more tight and then gradually ease your tension on the halyard. The reason is the sail's weight fully hoist is the highest, and gradually it becomes lighter.

When the furling angle is correct you should mark your vang.

Manual vangs are operated with a line and can be released to a mark on the inner tube of the vang. And as an extra check, put a mark on the line.

Hydraulic vangs without furl finding device can be fitted with a sphere which alleign with af mark on the mast.

If no vang is fitted, the boom can be held in position by a marked Dyneema topping lift.

TIPS AND TRICKS

A furling boom is heavier than a regular boom
The heavier boom means that extra caution is required, especially when gybing or sailing under engine, i.e. when the sail is completely furled, the additional weight of the boom will add load to the vang, mast, and boom.

Gybing should be done under full control, ensuring that the boom is first pulled in toward the center of the cockpit and then, once on the new course, eased out.

In the event of an uncontrolled gybing - the forces are significant and can lead to an unintended torsion of the boom resulting in damage. Similarly, the boom can hit the shrouds, which, in addition to causing direct damage to the boom, can again lead to damage on other mast- and deck gear.

It is the full responsibility of the owner and user to ensure that gybing occurs under full control and with consideration of the current conditions.

When sailing by engine and the mainsail furled in, it is important that the boom is not allowed to swing from side to side. Fix the boom with a topping lift in combination with the main sheet and attach preventers from the boom to each side of the boat, so that the boom cannot swing.

Allowing the boom to swing from side to side can cause the same damages as with uncontrolled gybing. Similarly, when the boat is at anchor or in port, secure the boom so that it cannot swing, for instance, in strong winds.

It is the full responsibility of the owner and user to ensure that the boom does not have the opportunity to swing freely from side to side in these situations.

Mainfurl is not responsible for any damages that may occur due to uncontrolled gybing, sailing with the boom swinging from side to side or similar situations.

Furling in rough seas
- Start the engine
- Use the same procedure as reefing (page 8-9);
    - Keep sailing upwind under head sail.
    - Ease the main to leeward so no load, and do the furling.
    - Keep furling untill the main is down.

Note! With numerous uncontrolled “gybes” will there be the possibility of damaging the boom- and toggles. It’s therefore always the user’s responsibility to be aware of his s urroundings and to secure the boom correct, so that the boom can’t sway uncontrollable.

Please note;
The operation of the boom is the same if the manual winches are replaced with electric winches. However, extra care should be taken as electric winches have strong forces that can - potientially - damage the furling mechanism in the boom.

TROUBLESHOOTING

Sail cannot hoist
- No electricity
- Control box is not turned on
- Sail has not been fed into the feeder correctly

Sail is hard to hoist
- Sail is partially loaded, and mainsheet is not toatlly eased
- Main halyard is catching somewhere
- The coupling is not released

Sail cannot furl
- No electricity
- Main halyard cleat is not open
- Main halyard is jammed somewhere
- Sail is caught somewhere

(At any stage the sail can be lowered to deck, by simply releasing the halyard)

Sail pushes forward when furling
- Mainsheet is not eased
- Boom height is set to low
- Halyard resistance is too loose

Sail pulls back excessively when furling
- Boom height is set too high
- Halyard resistance is too tight

No electricity
- Lower the sail by hand to deck

GENERAL INFORMATION

- **How to use the remote:**
  1. Activate: Press the green "START" button before each use.
  2. Operation: Press the relevant button for the desired function (Unfurl, Furl, Flatten).
- **Function**: The remote control provides the same functionality as the panel buttons, allowing you to control the furling system from a distance. However, there are a few key differences:
  - The remote is activated with the green "START" button.
  - The remote turns off automatically after 2 minutes of inactivity. Reactivate it by pressing the “START” button.
  - Multiple button input is not possible, e.g.,no "half speed" furling.
  - The remote has a backlight but no visual feedback when buttons are pressed.

HOISTING WITH THE REMOTE

- **Recommended method**: Press and hold the "unfurl" button to unlock the boom. The boom lock will remain open as long as the button is pressed, and it will close automatically when released.

  Important: Because there is no visual feedback on the remote to show if the lock is open or closed, we do **not** recommend using the latching mode (brief button press) as described for the control panel.
- **How to use**:
  1. Press and hold the "unfurl" button to unlock. Wait at least 3 seconds before hoisting the sail.
  2. Hoist the sail with the main halyard.
  3. Release the button to lock the boom furler.

FURLING WITH THE REMOTE

- **How to use**:
  1. Press and hold the "furl" button. The boom furler will start rotating after approximately 3 seconds.
  2. Ease the halyard and adjust its tension to control the furling process.
  3. Release the "furl" button to stop. The boom locks within 5 seconds.

THE FLATTEN FUNCTION

- **Function**: Instantly furls the sail without the usual delay from opening the lock. The furling speed is slower compared to the regular furl function. Use “flatten” to tension the luff or for making minor adjustments to the sail height such as positioning the sail precisely at a reef.

YOUR NOTES

MAINFURL

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