

SIDE-POWER
Thruster Systems

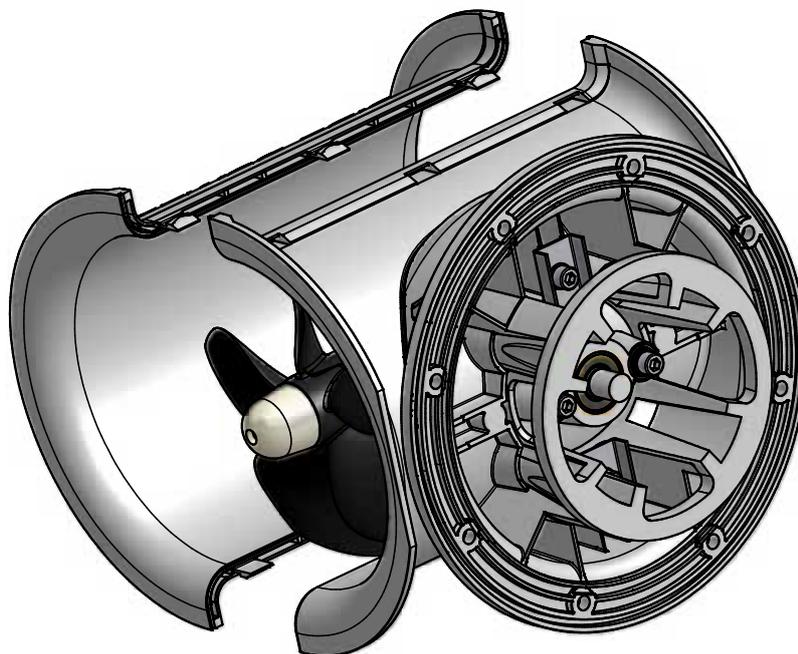
90150i Stern thruster installation manual

Keep this
manual onboard !

IMPORTANT NOTICE:

This manual is to be used in addition to the regular installation manual for the Sidepower thruster.

This manual is intended for professionals only, and does not contain all detailed work instructions for what must be done to ensure correct and safe installation of the sternthruster.



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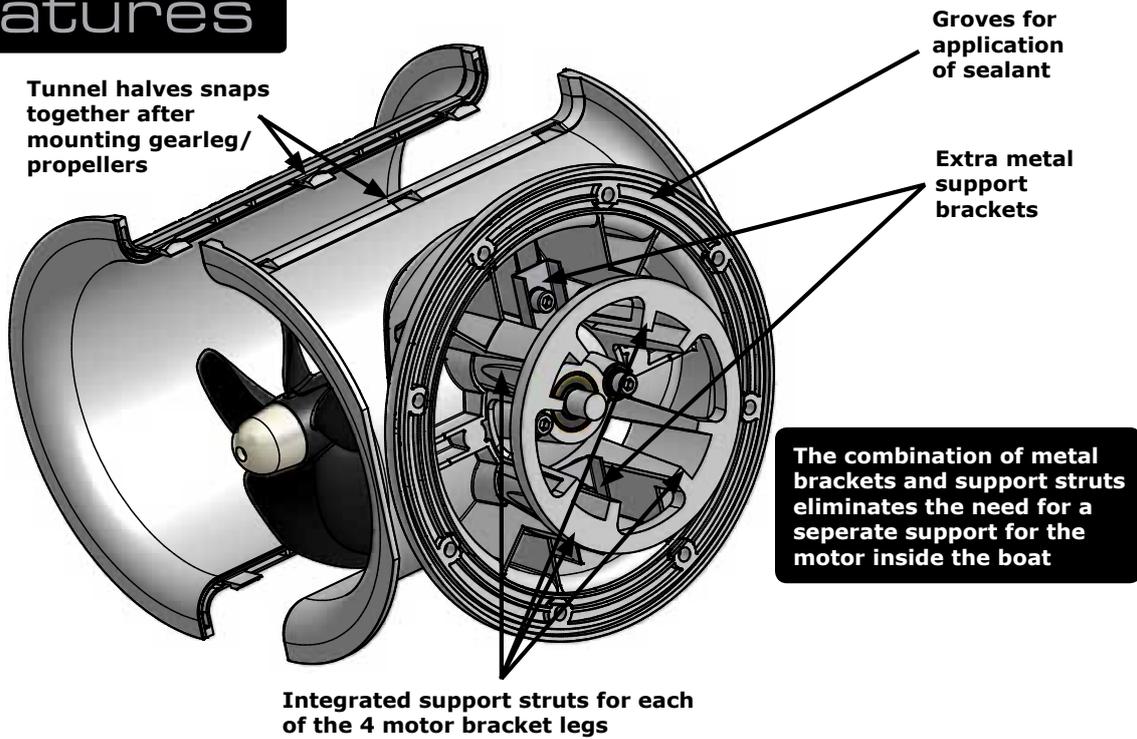
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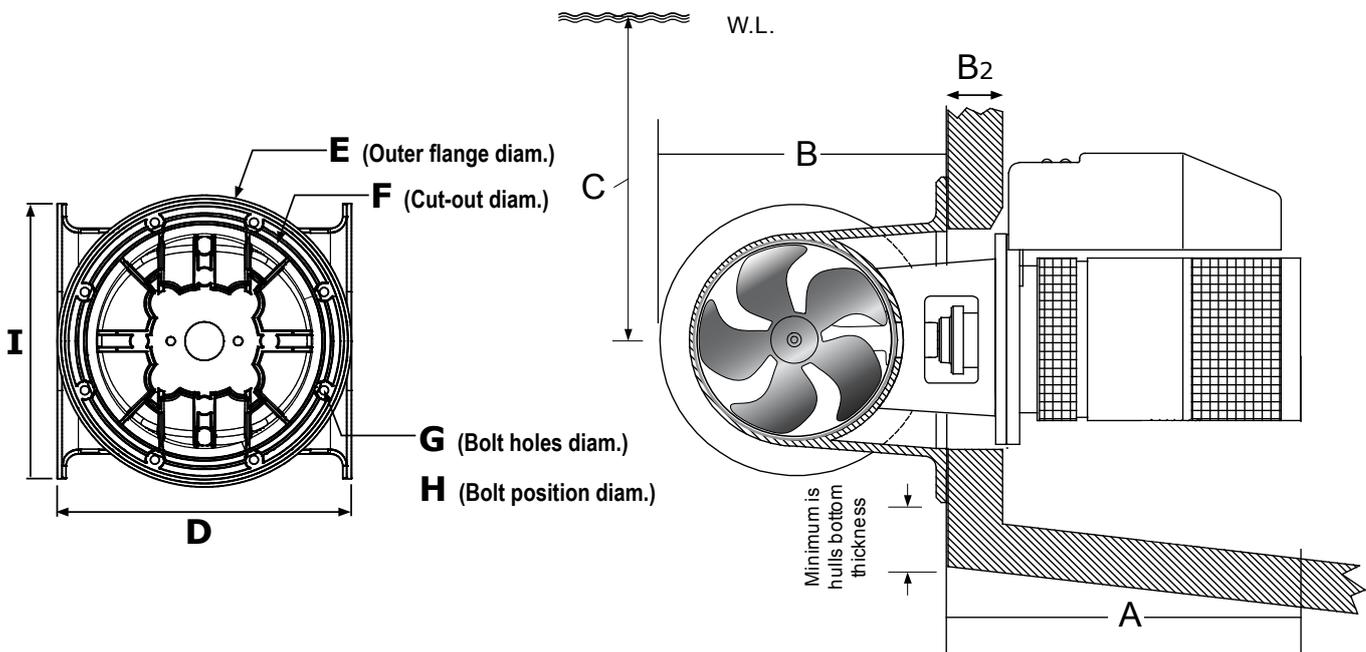


Made in Norway

Features



Measurements



Thruster	A	B	B _{2(max)}	C	D	E	F	G	H	I
SE(P) 130	363mm/14.2"	345mm/13.6"	105mm/4.1"	250mm/9.84"	350mm/13.8"	350mm/13.8"	270mm/10.6"	8x10.5mm/0.41"	308mm/12.1"	330mm/13"
SE(P) 130 IP	390mm/15.4"	345mm/13.6"	105mm/4.1"	250mm/9.84"	350mm/13.8"	350mm/13.8"	270mm/10.6"	8x10.5mm/0.41"	308mm/12.1"	330mm/13"
SE(P) 170	386mm/15.2"	345mm/13.6"	105mm/4.1"	250mm/9.84"	350mm/13.8"	350mm/13.8"	270mm/10.6"	8x10.5mm/0.41"	308mm/12.1"	330mm/13"
SE(P) 170 IP	390mm/15.4"	345mm/13.6"	105mm/4.1"	250mm/9.84"	350mm/13.8"	350mm/13.8"	270mm/10.6"	8x10.5mm/0.41"	308mm/12.1"	330mm/13"
SE(P) 210	424mm/16.7"	345mm/13.6"	63mm/2.5"	250mm/9.84"	350mm/13.8"	350mm/13.8"	270mm/10.6"	8x10.5mm/0.41"	308mm/12.1"	330mm/13"
SH 240	195mm/7.7"	345mm/13.6"	-	250mm/9.84"	350mm/13.8"	350mm/13.8"	270mm/10.6"	8x10.5mm/0.41"	308mm/12.1"	330mm/13"

To achieve maximum effect, reliability and durability from your Sidepower Sternthruster, a correct installation is very important.

Please follow the instructions carefully, and make sure that all checkpoints are carefully controlled.

1. Make sure that there are enough space both inside and outside the transom of the boat.

Additional considerations for positioning of stern thruster:

- o Make sure that the stern-tunnel does not disturb the waterflow under the hull
- o Ensure that when installed the thruster does not foul existing equipment inside the boat like steering links etc.
- o Make sure that the water flow from the thruster are not interferred to much by sterndrives, trimtabs etc. as this will reduce the thrust considerably.
- o It is possible to mount the tunnel off the boat's centre line if necessary.
- o If the stern thickness is to much for the thruster in question you can easily remove material in the necessary area to fit the thruster. The stern thickness even here will never have to be less than the max. measurement given as max. stern thickness.

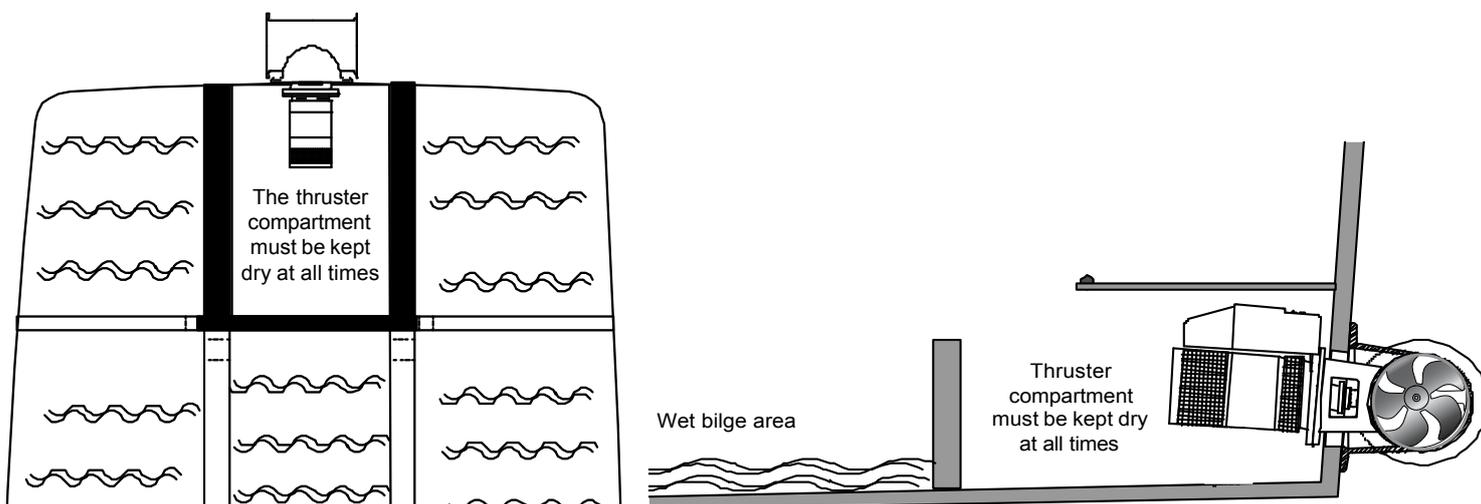
THE STERN-THRUSTER MUST BE KEPT DRY AT ALL TIMES

It is very important that you do everything possible to ensure that the thruster stays dry at all times.

The electromotor and and solenoid system is not to be considered as waterproof, and will be damaged if they keep getting wet (rust and corrosion). Therefore, the thrusters installation compartment must be kept dry at all times. This is more difficult for a sternthruster installation than for a bowthruster installation as the sternthruster has to be fitted in the bilge at the stern of the boat. This is generally a "wet" area that must be transformed into a dry area.

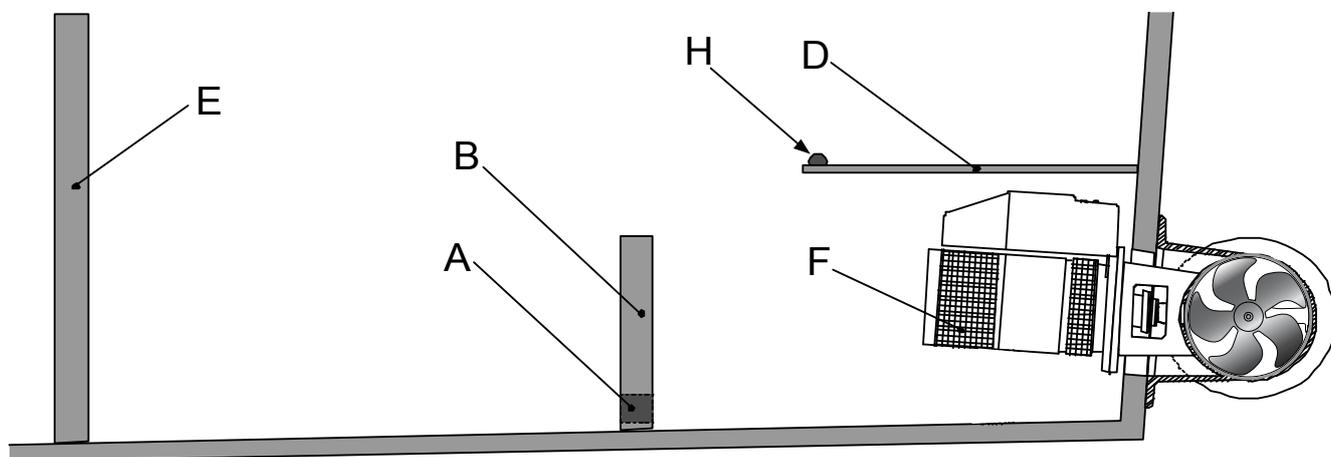
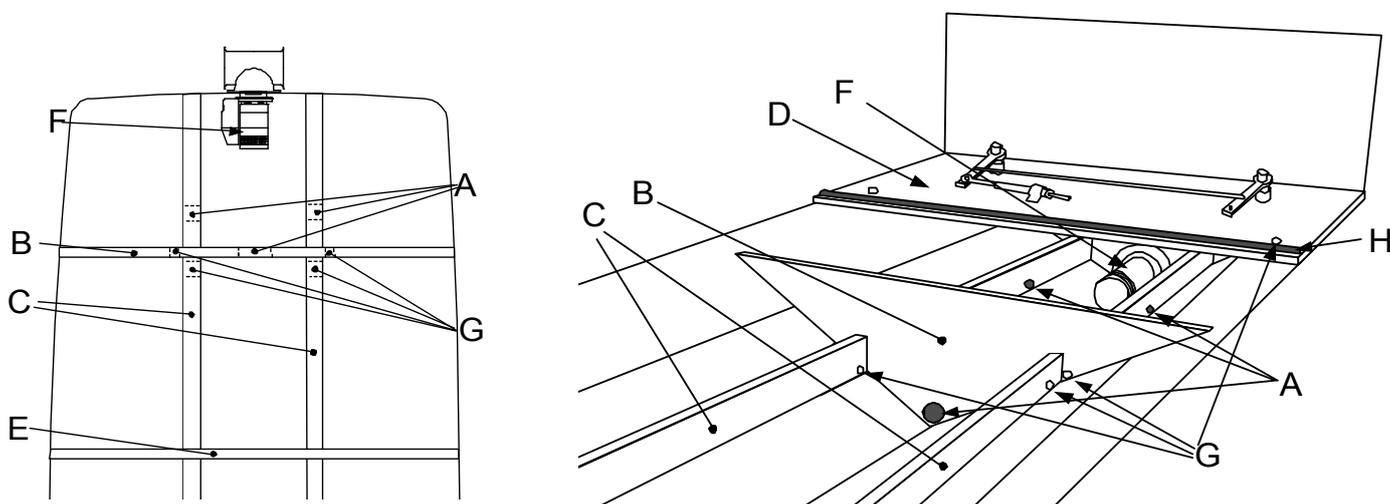
Important precautions !

- You must seal all drain holes going into the compartment of the thruster.
- The surrounding compartments and any plates or compartments above must be drained in a good way to the bilge area in front of the thrusters installation compartment.
- If the propeller shaft or other moving parts with a high possibility for leakage comes through the bottom of the boat in the same compartment where the thruster is placed, you must make a seperate compartment for the thruster isolating it from these very normal and highly probable water leakages.
- The rudder shaft entrances to the boat and its surroundings must be drained so that any water coming in here are drained to go into the compartment in front of the sternthruster compartment.
- It is also important to ensure that the sternthrusters installation compartment will not be were water runs if a self-draining system of the boat deck fails to operate properly.
- Generally, all possible actions should be taken to ensure that water leakages from sources that are likely to have water leakages are drained to prevent water from entering the stern-thruster compartment.
- We advice to install a self-activating bilge-pump, preferably with an alarm system, in the stern-thruster compartment. If you are not confident that you have been able to seal this comparmtent well, this pump is absolutely necessary.
- The control-cable system for the thruster must be installed so that atleast all junctions and connectors are kept dry at all times.
- In the Sidepower sternthruster kit, there will be included a cable, so that electronic controlbox originally placed on the electromotor, can be fitted away from the thruster in a higher position securing that it will stay dry at all times, even if there are accidental leakages into the stern-thruster compartment. Please see instructions on the following pages of how to connect this. If you are installing a sternthruster without the special sternthruster tunnel available from Sidepower, this kit can be bought seperately.



Description of illustrations:

- A: All draining holes or other openings from wet areas into the thruster installation compartment must be sealed.
- B: Originally non-sealed bulkhead
- C: Stringers in the boats length directions, normally there are drain holes through these from side-compartments
- D: Plate above bilge where the steering system and other technical installations are often installed
- E: Watertight bulkhead to engine room.
- F: Thruster
- G: Ensure there are draining holes in these positions to lead the water to the bilge to be pumpe out.
- H: Make anti drip edges on all surfaces above the thruster compartent to ensure that any water here will go via the drain holes and to the wet part of the bilge.



- Once the place for the installation has been decided, hold the tunnel half/flange in place in the horizontal position and mark the bolt holes.
Remove the tunnel and it is then possible to calculate and mark the centre.
- It is important that the tunnel flange sits flush on the transom. If this is not case, then the fitting area on the transom will have to be worked to ensure a snug fit.

PS ! Take care with grinders as it is very easy to remove to much fibreglass

At this time, cut out the centre hole in the transom to the same internal diameter as the tunnel flange (ref. measurements, page 2) and drill the bolt holes. Before actual fitting the stern tunnel, we recommend that the prepared area is sealed with a gelcoat or similar to ensure there is no water ingress.

- Before fitting the tunnel to the transom, install the gear leg to the tunnel as described in the thruster installation manual. Secure the motor bracket with the included metal support brackets according to Fig 1. This eliminates the need for any external support of the thruster motor. The electric motor can now be fitted to the motorbracket (refer to thruster manual for correct procedure), and the stern thruster can be attached to the transom as one unit as the cut-out is dimensioned to allow for the size of the motor. If accessibility is limited, consider connecting the thruster cables before fitting the complete unit to the transom.
- When fitting the tunnel to the transom, ensure that there is ample sealant (Sikaflex or similar) in the sealing tracks of the tunnel flange and around the bolts to make a water tight fitting (see Fig. 2&3). Bolts, washers and nuts are not included as their lenght will vary depending on the transom thickness. We recommend A4 stainless with A4 lock nuts and A4 washers of a large diameter on both outside and inside.
- Fit the outer half of the stern tunnel according to Fig. 4. Use glue (Sikaflex or similar) to get a secure bond. Make sure that the lock tabs in the outer half snaps in to the holes in the inner half for the tunnel to be certain that the two halves are locked together

Fig. 1

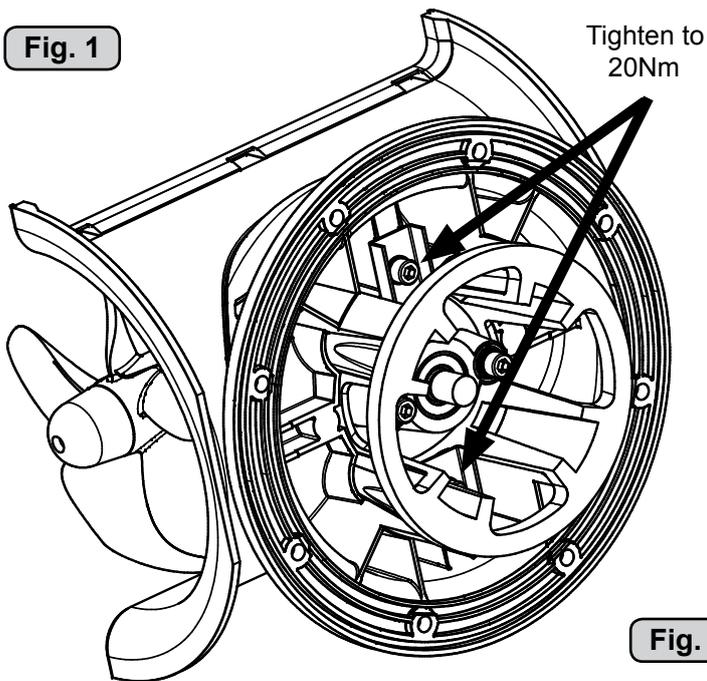


Fig. 2

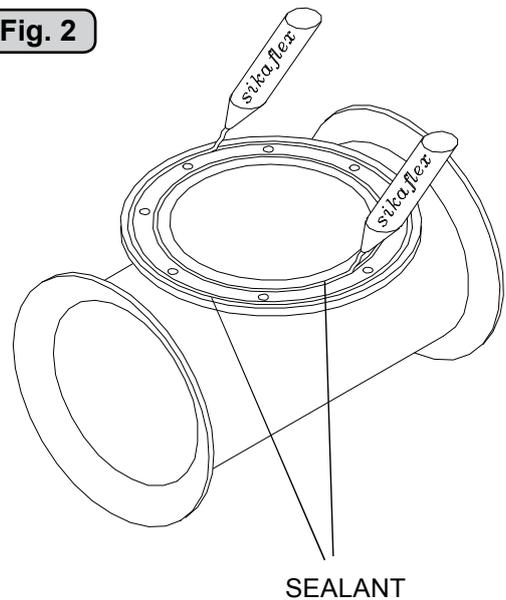


Fig. 3

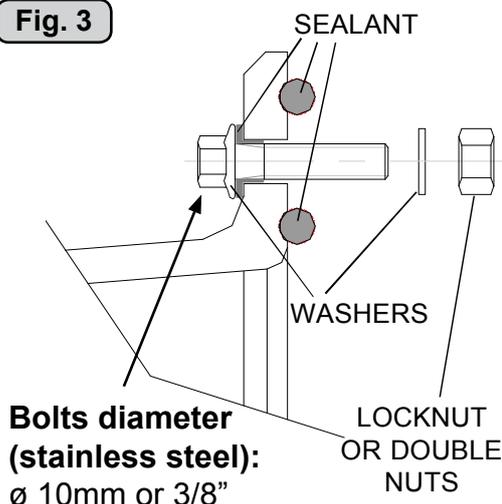
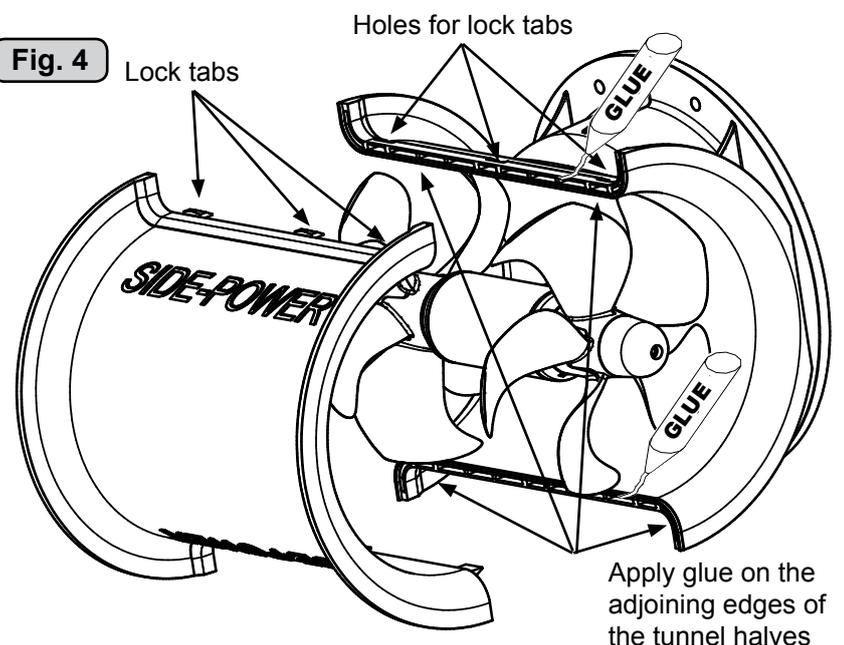


Fig. 4

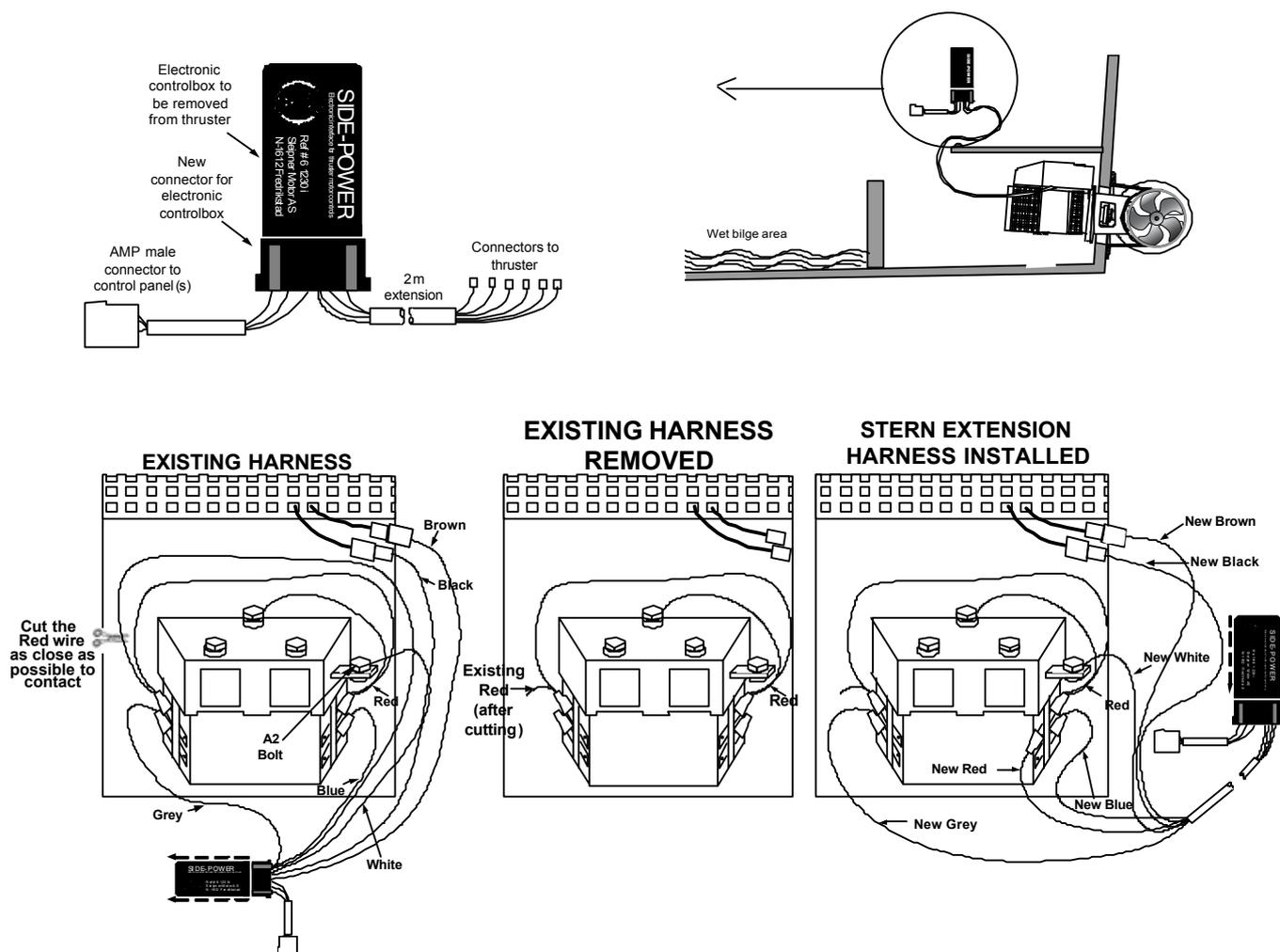


REMOTE INSTALLATION OF THE ELECTRONIC BOX.

As the electronic controlbox and its contact are the most sensitive parts on the thruster, we advice that these are removed from the thruster and fitted in a high place in the boat so to secure these from water ingress, even if the thrusters compartment gets flooded. Included with the stern-thruster tunnel kit is an extension cable that will allow you to do this.

Procedure:

- 1 Exchange the GREY and BLUE wires on the sides of the main solenoids that is coming from the electronic controlbox with the GREY and BLUE wires from the extension cable.
- 2 Exchange the BLACK, BROWN and WHITE wires from the electronic controlbox with BLACK, BROWN and WHITE wires in the extension cable.
- 3 Cut the strips holding the RED internal connections together with the other internal connections, and leave the RED wires on the main solenoids. Cut the red wire in accordance to drawing.
- 4 Remove the electronic controlbox and its harness from the solenoid system on the thruster.
- 5 Locate and fasten the electronic controlbox in a position where it will surely keep dry. This should be relatively high in the boat, so that even an extreme level of bilge water can not get to it. Also ensure that the position is safe against water running from above.
- 6 Remove the electronic controlbox from its original harness and plug it into the connector on the extension cable.
- 7 The extension cable to the control panel(s) must now be connecte to the AMP male plug on this remotely installed controlbox. Ensure that all controlcable junctions/connectors are placed so that they will stay dry at all times.



- Never use the thruster if there are people or animals swimming in the area around the thruster. The thruster propeller can cause serious injuries when it is running.
- **WARNING ! Never store any items that can leak explosive gas in the same room where the sternthruster is fitted. The thruster will create sparks that can cause an explosion if there are explosive gases present.**
- When the boat is going backwards in a “dirty” harbour with lots of floating objects / debris, this can be “collected” by the transom of the boat. These objects / debris can cause damage to the thruster if sucked into the tunnel while the thruster are being operated. All the thrusters are built with flexible couplings changeable from inside the boat, but damages can occur to other parts of the thruster in certain cases.
- Always turn of the main power / disconnect the thruster from the batteries before touching any moving parts of the thruster inside or outside the boat.
- If the thruster does not move the boat/does not give any thrust you must immediately stop trying to run it and turn off the main power switch until the reason for this is found and corrected.
- **This manual is in addition to the general thruster manual, so this must be read and understood also !**

IMPORTANT NOTICE

Sleipner Motor AS assumes no responsibility or liability for the installation of any components. Skilled installers should be used, and there might be unforeseen factors that can make one or more installation instructions wrong or not entirely correct for the boat in question. The installation responsibility is thereby solely on the party that are actually performing the installation.

- All bolts are securely tightened and sealant is applied as instructed.
- The outer and inner half of the tunnel is securely locked together.
- All necessary actions have been taken to ensure that the thrusters installation compartment will stay dry at all times.
- The electronic controlbox of the thruster have been remotely fitted in a high place where there are no chance it will be submerged or splashed with water.
- All electrical wiring, cable sizes and battery capacity is according to the thruster installation manual.
- The unit has been moved by hand and found to run freely.

STERNTHRUSTER TUNNEL INSTALLED BY:

DATE:.....

INSTALLED THRUSTER:

Worldwide sales and service



www.side-power.com



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