TENDERCONNECT® INSTALLATION- AND USERSGUIDE

EN-02-2023

Dieter Radler - inventor.

FOREWORD

Thank you for choosing TenderConnect®.
This manual shall help to get TenderConnect® installed quickly and easily.
As soon as you will have installed TenderConnect you won`t want to miss it ever again. If you have any questions or remarks for improvement, we are more than happy for contacting us. We will support you as best as possible.

Important: Please read this manual completely and thoroughly before you start with the installation.

Make sure that the length of the screws we delivered fits for your yacht and tender.
And once again – ask us if you are uncertain about something or don`t know how it works before you start to work. We will be glad to help you.
This manual works for the installation of all sizes of TenderConnect Stainless Steel Cast. This is also the reason why you sometimes find more parts listed than you actually need for your installation.

After a thorough preparation the actual work should not take much longer than an hour. If you wish, that we should install TenderConnect at your yacht, feel free to get an offer.
We will do it for a reasonable price.

Install now – sail stressless tomorrow.

Your TenderConnect® Team

For any questions, remarks:
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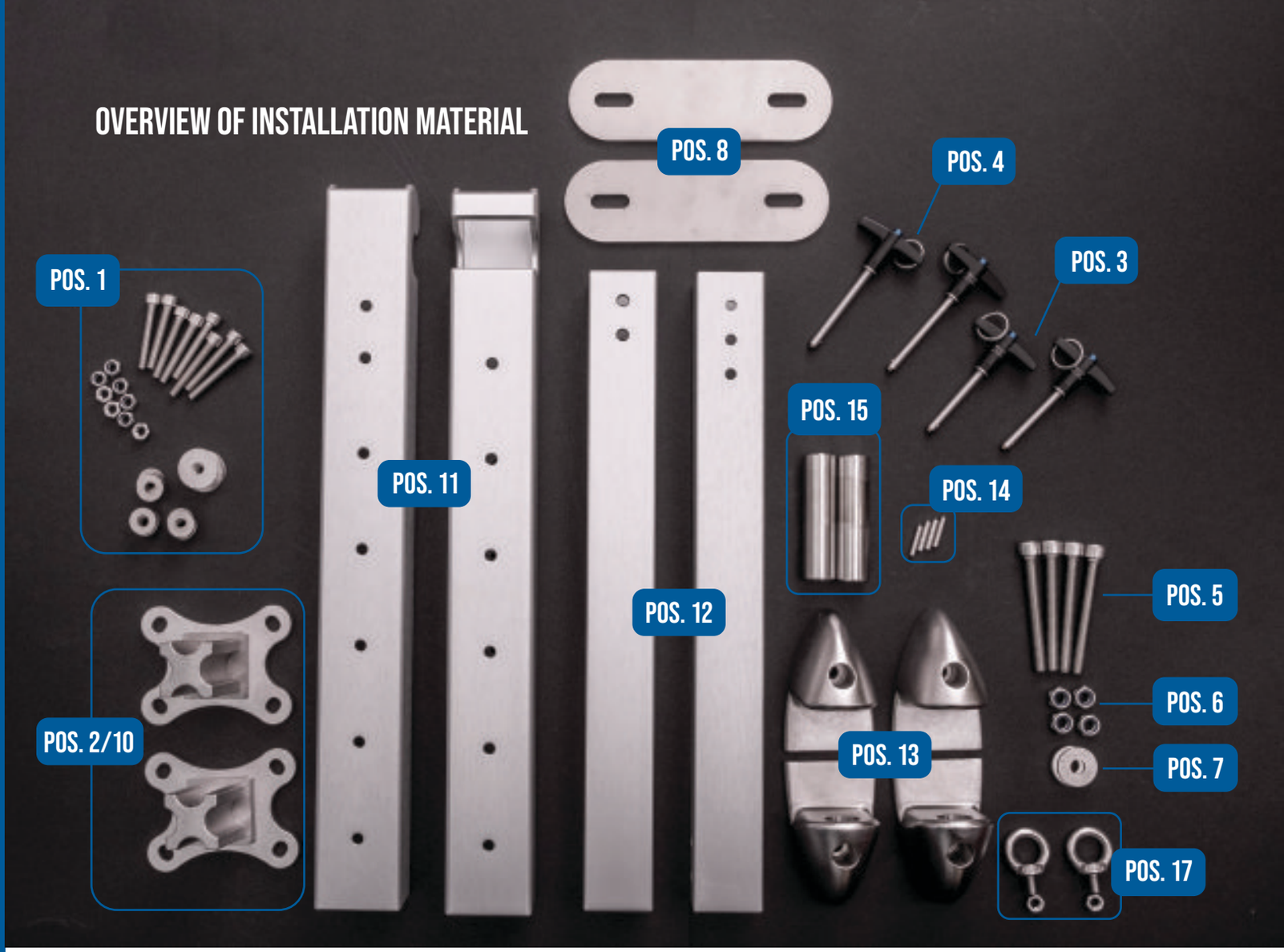
CONTENT

A

PACKAGE CONTENT

Please check if you have received everything you can see on the picture on the right. Please also check wheather anything is broken. If that happens to be the case please contact us.
The following pages explain what you have received and how to install TenderConnect correctly.



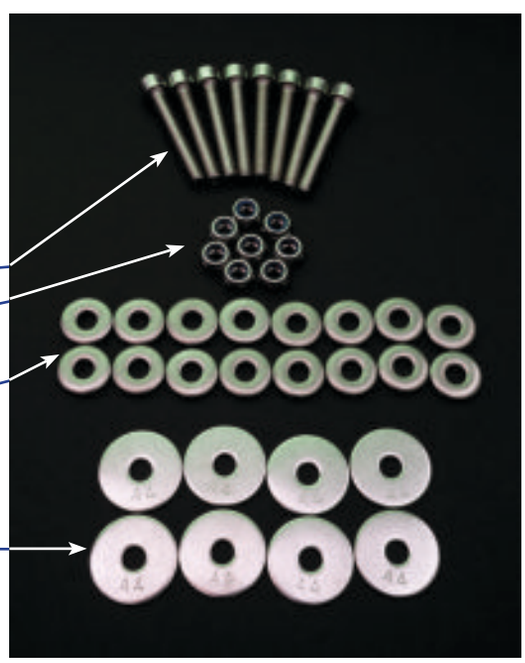
A1. INSTALLATION MATERIAL DINGHY

In your package you will find a lot of screws and nuts e.g. All screws are made of stainless steel or rust resistent material. We reserve the right to change those screws occasionally with no negative influence on quality and function.

Pos. 1) Screws, allen screws for cantilever base plate

These allen screws are needed for the installation on the back/ stern of the tender. You need the following material/screws for the installation of the cantilevers base plate:

- 8 x M6, allen screws
- 8 x self-locking nuts
- 16 x washers M6, appr. 18mm
- 8 x washers M6, appr. 25mm
  (for inner side of the dinghy stern)



Pos. 2) Dinghy’s cantilever base plate

Two plates that are fixed on the stern of your tender with 4 screws (see Pos.1). Theses stumps/ ends are later used to fix the cantilevers to the tender (see picture). The cantilevers can either be adjusted with ball locking bolts or with screws.
These cantilever receivers are made of the same high class stainless steel castings as the receivers on the yacht.

Pos. 2.

Pos. 3) Quick-Release, 2 pieces, 6mm 40mm

With these ball lock pins the movable parts of the cantilever can be adjusted or removed fast and easy.

Quick-Release

Please keep in mind: These ball lock pins need almost no maintenance if they are used in freshwater. If your yacht runs in seawater you should wash them out with freshwater and/ or oil them every now and then.
The following maintenance work has proven successful for us in the past:

- Rinse old quick-releases in hot water and remove any salt or lime or dirt deposits.
- After drying, use a syringe (available at any pharmacy) to inject grease into the interior near the balls. For this purpose, it is best to use waterproof grease, such as you surely use for the maintenance of your winches.
- Perform this procedure at the start of each season.

If you need new quick-releases, you can order them from our store at any time. We give these away almost at cost price.

Pos. 4) Quick-Release, 2 pieces, 6mm, 50mm

With these ball lock pins the distance between tender and yacht can be adjusted.

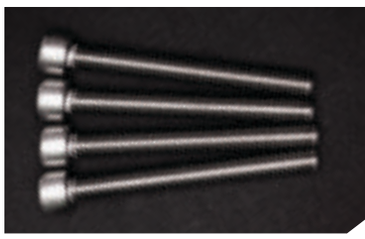
Pos. 3.

Pos. 4.

A2. INSTALLATION MATERIAL YACHT

Pos. 5) Allen screws, 4 x M8 x 70mm

These screws should be used for the installation of the receivers on your yacht. The 70 mm length should fit all types of boats.
Alternatively we may deliver screws with a continous thread. This depends on the supplier of these screws but does not make a difference in functionality.



Pos. 5.

Pos. 6) Self locking nuts M8, 4 pieces

These nuts are used for the screws (Pos 5) to fix the receivers to your yacht.
Depending on the supplier, the self-locking screws may have a blue or different coloured locking material.
And keep in mind that even self-locking screws loose a bit of their capability to lock with every unscrewing. So check that everything is working and in place before you firmly draw the screws.

Pos. 7) 4 pieces of washers M8, 21mm diameter

These washers in size M8 x ca. 21mm should be used for the installation of the receiver mounting plate.

Pos. 6.

Pos. 8) Mounting plate yacht- receiver 2 pieces

These plates work as a kind of big washers and are installed on the inner side of the yacht thus ensuring that the pressure of the screws holding the receiver cannot get too much.

Pos. 8.

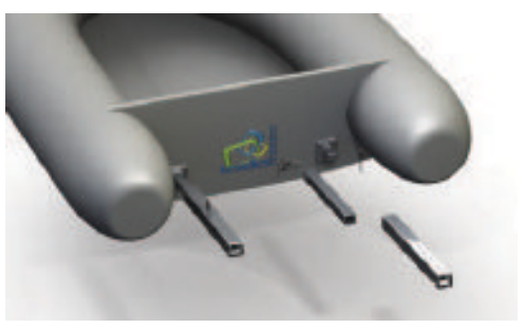
Pos. 7.

A3. TENDERCONNECT® COMPONENTS

Pos. 10) Cantilever-baseplate at the dinghy

One cantilever-fixed will be attached to the cantilever baseplate and secured with the Quick-Release in the correct length. The cantilever mover can be attached on this part and adjusted. This adjustment influences the distance from the backend/stern of the dinghy to the yacht when the dinghy is attached and pulled up.

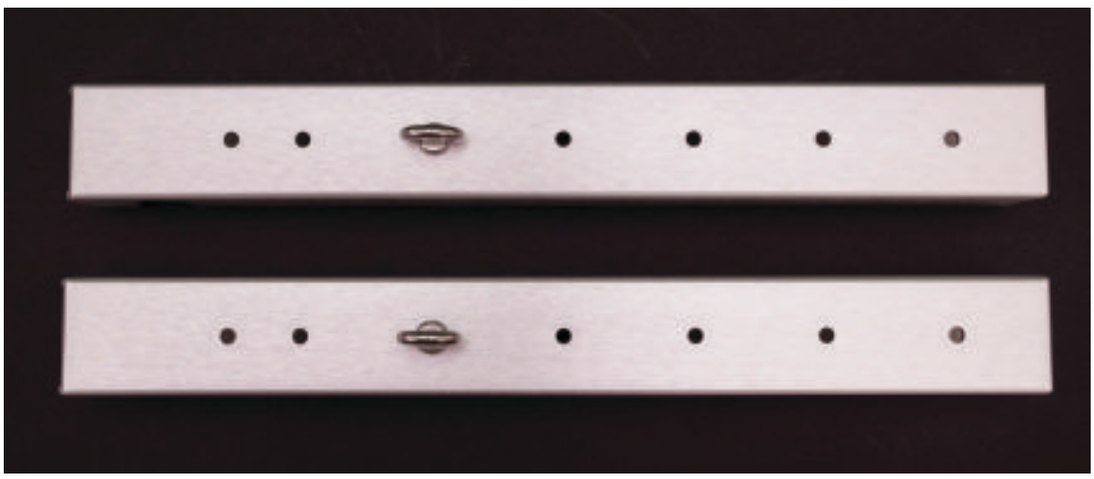
Pos. 10.



If you are intending to leave an outboarder at the dinghy (double check whether your out-boarder is suitable for that) than increase the distance easily by moving the cantilever-mover.

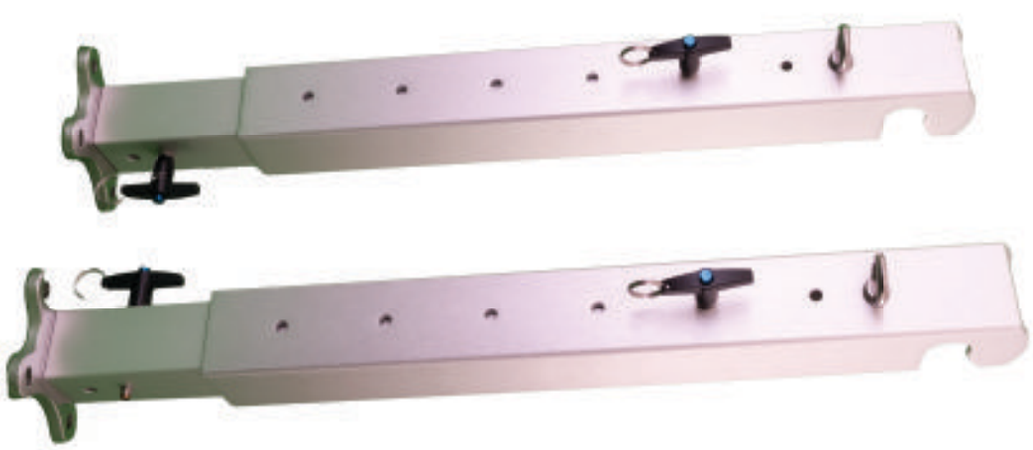
Pos. 11) Cantilever-mover

These two parts are the mobile parts of the cantilevers. Using these mobile parts the distance between your tender and the yacht can be adjusted.



The installed eyelets are serving to fix a stern line. This line is used afterwards to assist you during the process of connecting the dinghy backend/stern to the receivers.
Please keep in mind that the tender is transported best at an angle from 60° to 80° .
Alternatively it can be mounted to 90° or even more. But this is only allowed if the dinghy can be leaned on to a fixed point - like for example your backstay or the seafence. Nevertheless 60° to 80° is definitely what we recommend, so that the tender is kept in place by gravity.
Don`t hesitate to contact us if you have more detailed questions on this matter.

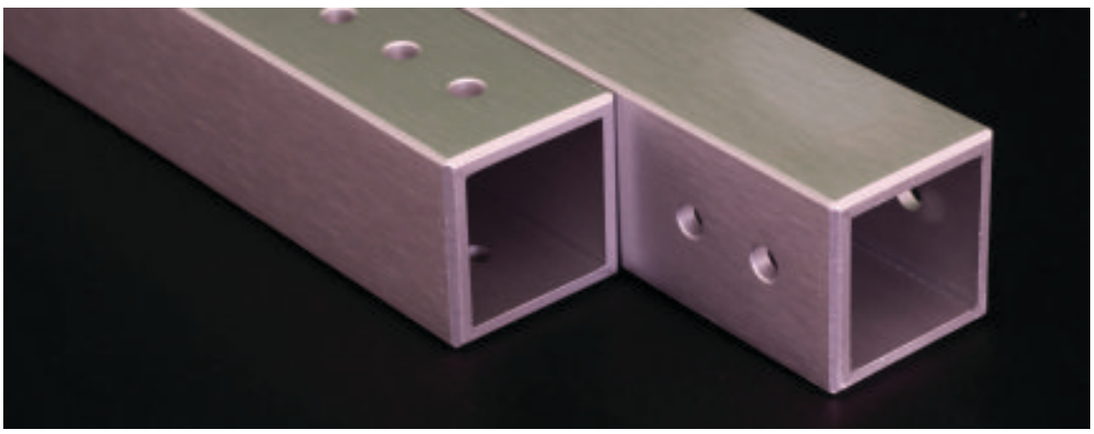
If you fear that strong aft wind might press your tender onto your stern - you can always just put a fender or similar things between the dinghy and the stern or the yacht.



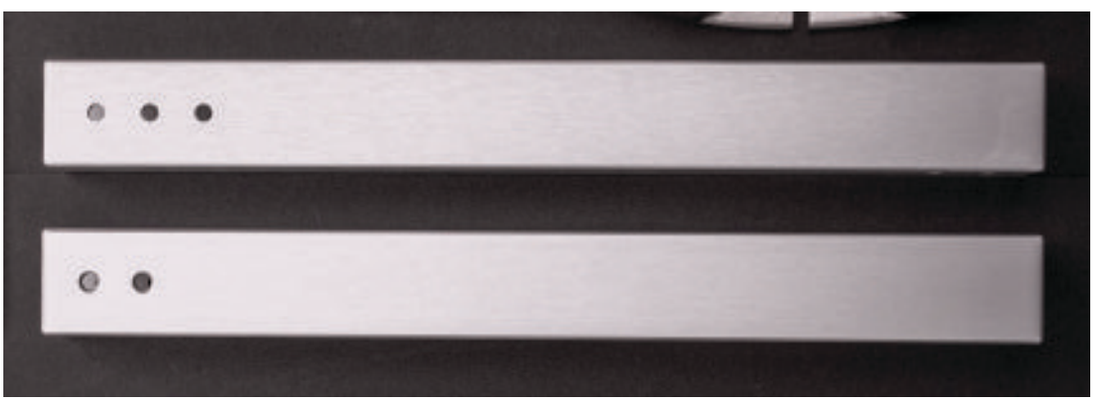
Pos. 11: Put together cantilever.

Pos. 12) Cantilever-fixed

Two pieces of those cantilever-fixed should be in the package. They will be attached at the cantilever baseplate.



Pos. 12.



Pos. 12.

Pos. 13) 4 x Receiver for the yacht

These receivers will be mounted to the stern of the yacht. They will capture the cantilevers from the dinghy's backend/stern.

This picture shows how they will look after putting them together. The last release does only provide two lead pins per side for the receivers.

The receivers can also be mounted with a bit of distance. Up to 5 mm / 0.04 inch is not a problem.
In case you own more than one yacht and you install TenderConnect on all of the yachts and dinghys, increase the distance to the max, so that installation tolerances at the dinghys will be purged by the increased distance and all dinghys will fit on all yachts.

Pos. 13.

Please make sure, that both receivers are always installed on the same single plan in parallel to the water surface.

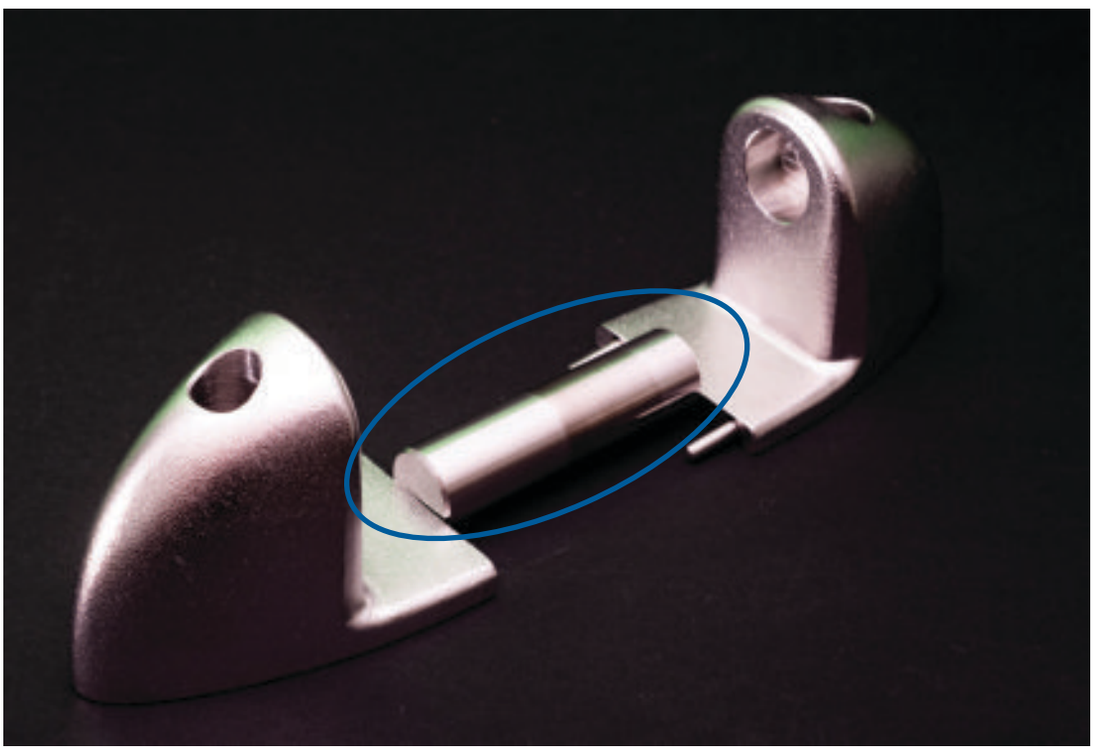
Pos. 14) 4 x Lead pins for the receivers

Based on the TenderConnect version there are two or three lead pins. The lead pins will be mounted in the locating holes in the receivers. The locating holes are slot holes so that even on rounded yacht sterns fitting is possible.

Pos. 14.

Pos. 15) 2 x Main pins for the receivers

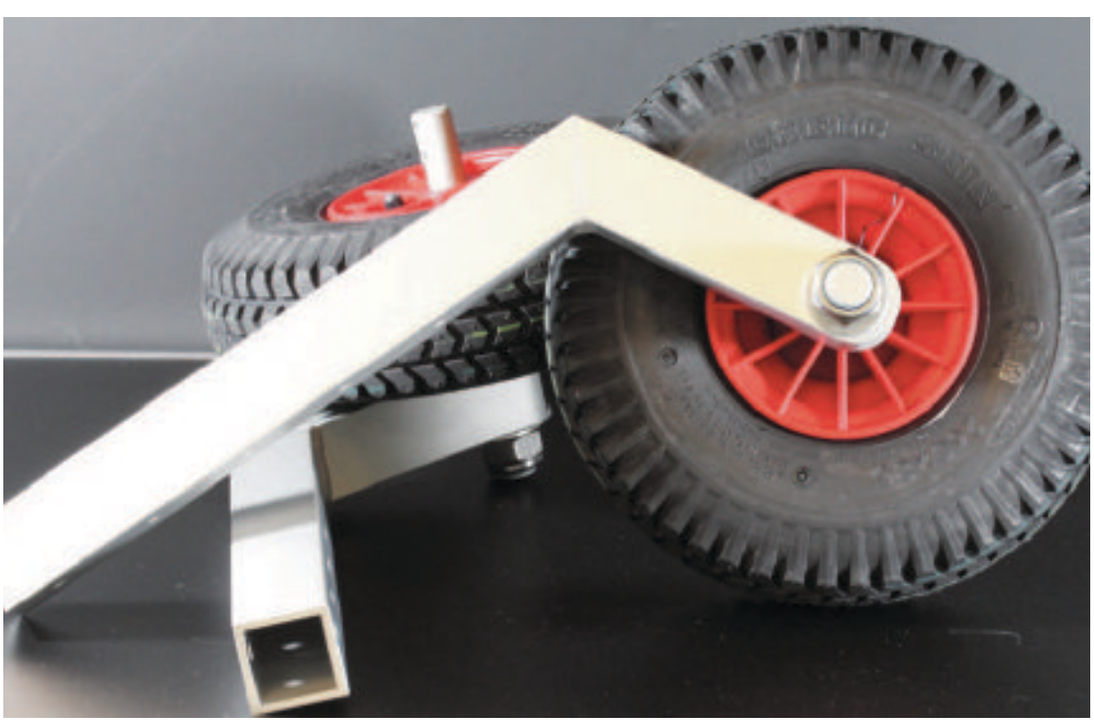
The main lead pin fits into the huge holes. There is a clearance because the main lead pin holes are also slot holes.
This enables the construction to be mounted to rounded sterns. The rounding factor can be up to 2 degrees. If there is more rounding, we are providing additional distance plates for up to 5 degrees of rounding.



Pos. 15.

Pos. 16) 2 x Slip rollers (if ordered)

Those slip-rollers can be ordered and mounted by exchanging the cantilever movers by those slip rollers.



Pos. 16.

Pos. 17) 2 x Eye-bolt with nuts

The eye-bolt will normally be installed on the last whole of the cantilever mover (POS. 11). This eye-bolt shall be installed, because it takes the dinghy-afterline, which is necessary to lift the dinghy into the receivers (standing at the stern of the yacht). If you have a boat with reverse transom, this eye-bolt shall be replaced by one which has a 60mm screw part and shall be placed where normally the Quick-Release is placed.

For the installation you need:

- An **open ended wrench** or **round wrench** in the size for an M6 nut
- A piece of **tape**

The installation works as follows:

Glue the tape in the wrench.

This shall support, that the nut cannot fall out during installation. The pictures are showing the details.

1

Then, put the wrench into the cantilever mover and put the eye-bolt from the top into the nut. Then screw with the eye-bolt, not with the wrench. Before the nut is completely fixed, make sure, that the direction of the eye-bolt is correct in one direction for both sides.

2

B

INSTALLATION

Before you install, we highly recommend to watch our prepared material on Youtube. Than read this manual again. This QR-Code will forward you to a Youtube tutorial on how to isntall TenderConnect on your dinghy correctly.

If you have questions, send us an email to:
Email: installation@tenderconnect.eu
Tel.: +49 89 37157571 or +49 172 8563146

B1. MOST IMPORTANT

Cantilevers have to be parallel

In order to get the most value out of TenderConnect, here are some important things to know and consider.

Both cantilevers of TenderConnect at the backend/stern of the dinghy have to be installed **parallel** at the same height and fitting to the planned distance of the receivers at the stern of the yacht.

If the backend of your dinghy is made out of wood or similar material, the backend/stern is straight, so an installation of the cantilevers will result in parallelism. But especially backends of dinghys made out of Aluminum have sometimes buckled backends. In this case, contact us for further assistance.

Here is a picture with a parallel installation at the backend/stern of a dinghy with aluminum bottom and sternplate.

The installation accuracy, compared to the distance of the receivers at the stern of the yacht can vary up to 5mm or 0,04 inch.
Quite important, the distance between the two cantilevers - and the receivers on the yacht - can be between 40 cm or about 15 inch to 70 cm or about 27 inch. If possible install it with a distance of about 50cm or 20 inch.
Especially, when you intend to exchange different dinghys from different yachts, this distance has to fit on all installations.

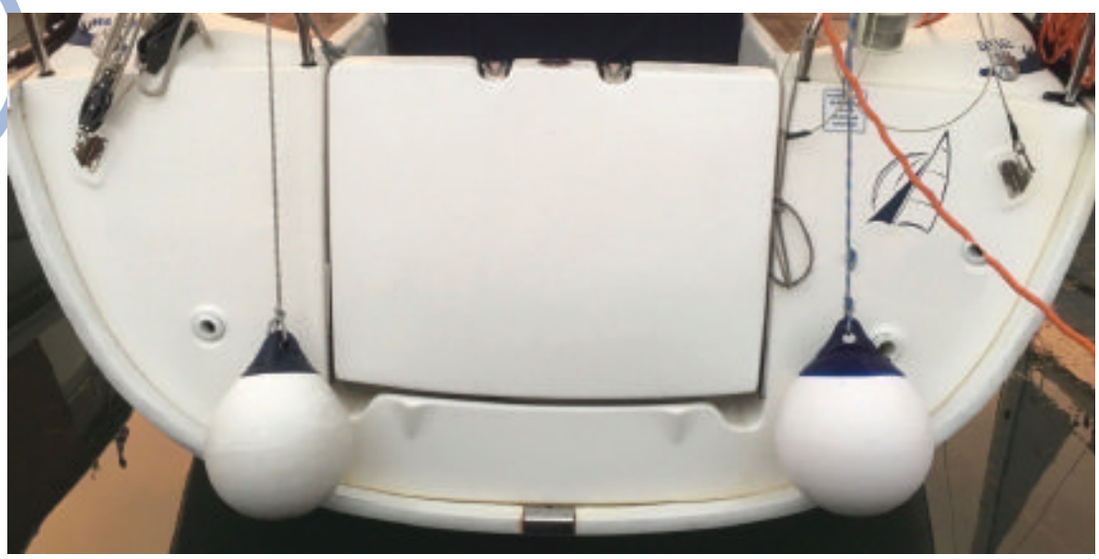
Installing the receivers

? What is the correct vertical height, where the TenderConnect receivers shall be installed at the stern of the yacht?

→ There are *two answers* and you can vary between those:
Generally, in order that the TenderConnect cantilevers can easily be put into the receivers at the stern of the yacht and that the dinghy will not disconnect by itself or by some waves, normally the installation height has to be 30 to 50 cm or 12 inch to 20 inch above the water surface. About 40 cm (16 inch) we would suggest if possible. If you are in doubt for your installation, please contact us in advance, we will assist and consult you.

1

For yachts with straight sterns (see picture below) with or without lowerable bathing plattform you can consider the following things:



The dinghy shall not be too tight at the stern in upright position. Therefore, you could increase the distance of the cantilevers on the dinghy backside a little bit. It really depends on the situation of your dinghy and yacht, but we would not recommend a larger distance of the dinghy's cantilevers to the water surface of 20cm or about 9 inch.
NOTE: Normally, the maximum height should be the middle of the airtubes of the dinghy.
But please keep in mind, the higher the cantilevers at the dinghy the less is the difference to the receivers of the yacht, the easier it can be swallowed out of the receivers by waves.

2

For yachts with a bathing platform:

The cantilevers on the dinghy side can be installed at the hight or slightly above the bottom (so that it does not interfere with something else) of the dinghy.

Spacing of the cantilevers

The cantilevers at the backside/stern of the dinghy **must have the same distance as the receivers at the yacht** (+/- 5mm or 0,04 inch).

Double check first the possible distance on the dinghy side, than check whether the same is possible on the yacht's stern.
Familiarize yourself with the drilling templates and use them. Cut of unneeded material from the drilling templates and hold it at the backend of the dinghy and the yacht. The drilling templates are showing the dimensions of the material of the cantilevers and receivers.

Generally, the transom of the dinghy does not have to match the transom of the yacht.
We would recommend to install the receivers outside of the transom of the yacht if the width of the stern is broad enough and there is possibly a bathing ladder which shall still be usable, even if the dinghy is up at the stern.
Here a picture of an older version of TenderConnect at the stern of a Jeanneau SO33i. The bathing ladder can be used even if a huge dinghy is mounted and up.

SUMMARY

Here is a **summary** of the most important things and measures:

Distance of the receivers and cantilevers	**16 inch to 27 inch**
Height of the receivers above water surface (yacht side)	**12 inch to 27 inch**
Weight of dinghy including outboarder	**175 pound to 200 pound**
Height of cantilever on the dinghy	**Slightly above water surface, up to middle of the air tubes**

B2. PREPARATION

In either case, you should have read chapter B1!
Please prepare your tools:

- ☐ **Drilling machine** and/or battery driven **screwdriver** with 8,4mm to 9 mm (0,33 inch to 0,35 inch) drill
- ☐ **Fork wrench** or similar thing for 8mm screws
- ☐ **Sikaflex** or other **sealing material** to seal the holes against water input
- ☐ **Allen wrench** for the screws
- ☐ **Pencil** and **adhesive strips** for mounting the drilling templates
- ☐ **Second person** to assist you
- ☐ Cut of unnecessary material from the drilling templates. Glue them together in the distance you need

☐ **First install the cantilevers on the dinghy side** because the dinghy is the limting factor in terms of width (mostly). Then install the receivers at the yacht stern.

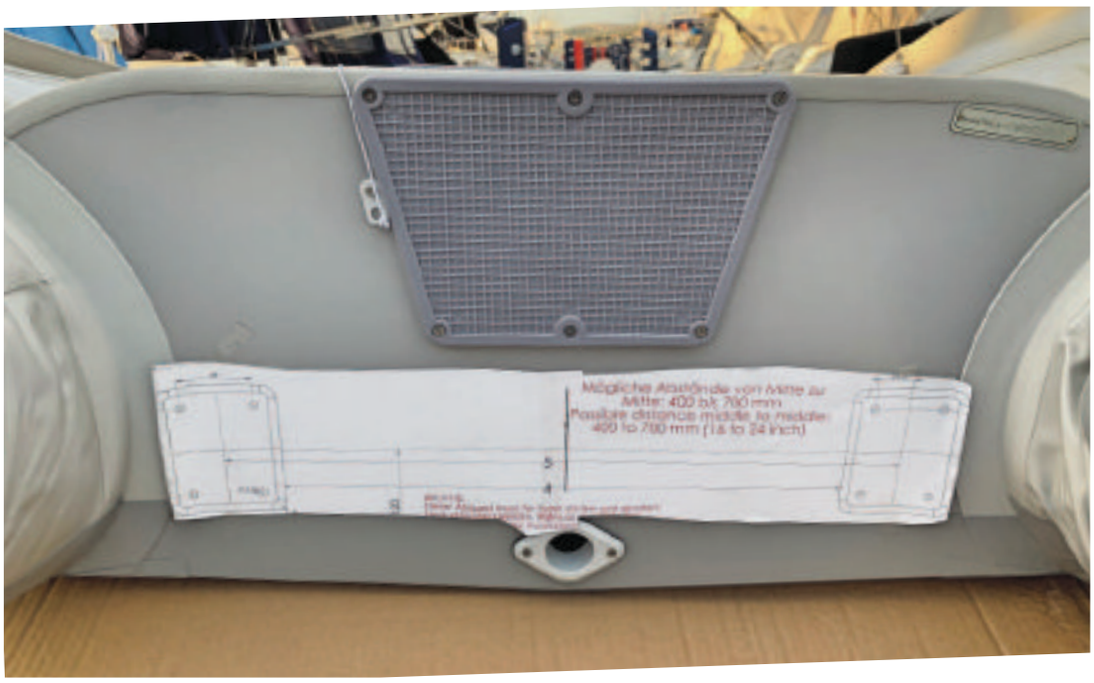
B3. INSTALLATION AT THE DINGHY

In either case you should have read B1.!

B3.a. Use drilling templates, drill holes and mount

A) Measure the possible distance at the stern or dinghy. Make sure you do not destroy other things at the backend plate of the dinghy. Prepare the drilling templates and glue them with the adhesive strips to the backend plate.

Preparation of the drilling templates.



Stick the prepared drilling template to the back of the dinghy.

We may have changed our drilling template slightly from what you see in the pictures. The drilling template you received should be working just fine.

B) Double check the distance to the airtubes and that there is enough space to handle the Quick-Releases for the movable parts.

C) Double check again whether everything seems to fit and work, then drill the holes.
The base plates on the dinghy are not designed at right angles. Thus, the base plates on the dinghy transom compensate for the usually 7 to 8 degree inclination of the transom and allow the booms to run parallel to the water surface (more or less, depending on the dinghy).

Drill the holes for the dinghy receivers after checking again that they are correct.

D) Install the base plates and attach the cantilever fixed and the mover. Use Sikaflex or other sealing materials to prevent water from entering the dinghy.

In the picture below you can see how much Sikaflex we used. Make sure you use enough Sikaflex, otherwise water could leak into your dinghy. Not a problem but prevented easily.

E) Then put the movable parts from pos. 12) Cantilever-fixed and pos. 11) Cantilever-mover onto the dhingy receiver mounting plate and lock them with the quick-releases.

Installation at dinghy is completed.

If you have a dinghy with a bevelled transom in the middle (usually on aluminium boats), please contact us for advice.

B3.b. This is with slipping rollers

This is how it should look like with the dinghy rollers (pictures are from an older version, but principle remains the same).

B4. INSTALLATION AT THE YACHT

This is how you should prepare the installation at the yacht:

- ☐ Invite a **second person**, otherwise it will be almost impossible.
- ☐ **Read and familiarize with the whole installation guide**, and make sure you have your **tools ready**.

That's it for now.

B4.a. Define the position for the receivers

The horizontal position of TenderConnect® depends on your stern of the yacht.

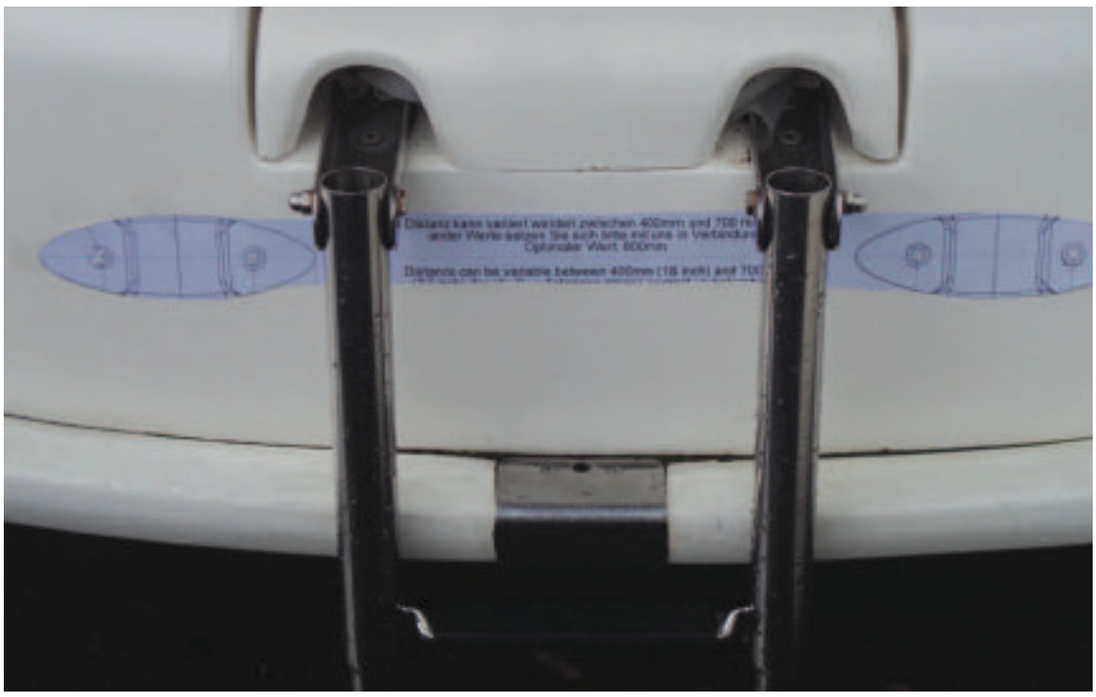
Generally spoken, there is no need for installing the receivers of TenderConnect at the transom or the middle of the yacht, it can be somewhere sideways. Possibly the optical impression afterwards will be slightly better when it is installed in the middle, but our own experience shows, that most people do not even recognize (at first at least) that the installation is not in the middle.

In order to understand this it makes sense to have a closer look on the relative width of the yacht and the dinghy. A today yacht 30feet or longer is somehow between 3 meters and 5 meter (10 feet to 16 feet) in width. The dinghy is about 1,2 meters (about 4 feet). So even if the installation of that relative narrow dinghy is outside the middle - it is still within the stern of the yacht.
Therefore there is a scope of almost 2 meters (6 feet) for installing outside the transom. Optimize the place for installation based on bathing ladders that shall be still usable or showers or….

The height above water surface shall be between 30cm and 50 cm that is between 12 inch and 20 inch.

B4.b. Use drilling templates, drill holes and mount

E) If you did not prepare the yacht side drilling templates with the dinghy ones, than do it now. Glue it to the stern.



F) Double check, that there is nothing that prevents the cantilevers from connecting and moving up. Double check that there is nothing that prevents the dinghy from moving up.

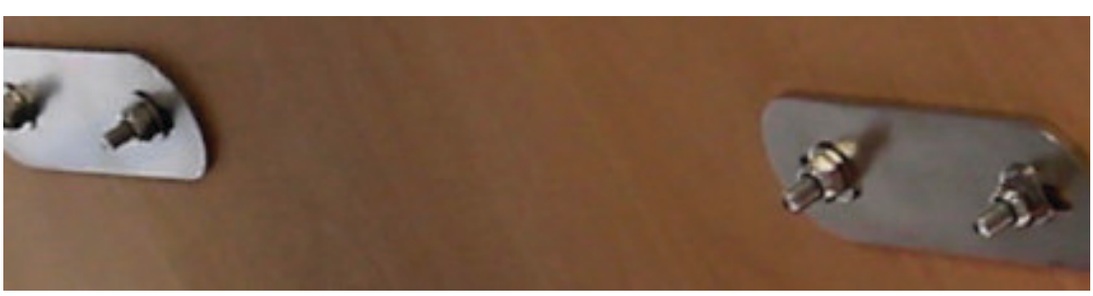
G) If everything is ok, drill the holes.

B4.c. Mounting the receivers

Mount the receivers by using the provided screws. At least now is the time when you need your buddy to assist with this screwing operation.

Please make sure that:
I.) Sikaflex or some other seal is available to seal the screws and holes
II.) Put the receivers together with the lead and main pins and attach the screws. Mount the receiver and have the second person to thighten the screws from the inside after putting the big washers on the screws. Tighten slightly first.
III.) Now move all parts of the receiver together, so that all parts have the least distance to each other. Make sure the receiver is parallel to the water surface and in direction of the second receiver. Tighten the screws. Do the same with the second receiver.
IV.) Note that the maximum torque should be around 16 Nm.

This is how it looks inside the yacht:



B5. BUILD A PULLEY MECHANISM

How the dinghy can be lifted depends on the situation of your yacht. Therefore, we do not deliver some pulley or further mechanism. You should solve this problem how it is best for your situation.
Nevertheless, if you need assistance, please contact us.
We know, that boating people are often good developers or founders. If you have a good idea, let us know and we try to bring that to other people. Each good idea will be rewarded with a small present.

B5.a. Use main topping lift

A lot of modern boats have a topping lift for the main boom and a rod-kicker.
Therefore the topping lift can be reused, because it is not really needed.
Use this topping lift and follow this instructions:

A) Install a stern line to the eyelets on the cantilevers which is long enough to be connected to the toping lift.

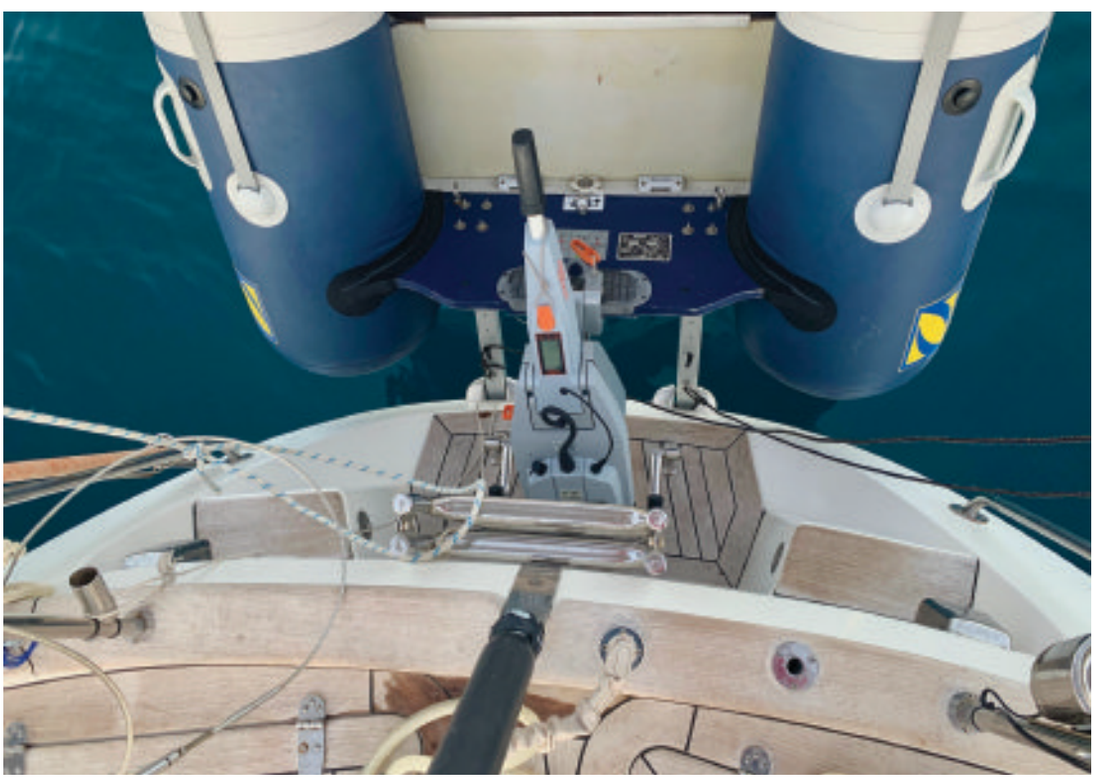
B) Pull the dinghy up using the topping lift. At best you can lead the topping lift line between the after stays.

B5.b. Small self made pulley

Create a pulley from a thin line, connect the pulley somewhere at the after stay and pull the dinghy up using this pulley.

B5.c. Simply with the dinghys line to the after stay

This is what we do and prefer. Simply use the foreline of the dinghy and mount it to the after stay. We tie-in a small eye into the line and have a carabiner at the other end and put that together. Simple, fast and efficient.



Even when the dinghy is raised, the motor can remain attached.

B5.d. DIY tube holders

The following pictures of the installation of TenderConnect on a motorboat were provided by our customer Florian A. - Many thanks for this!
The pictures show the secure mooring of a dinghy by stainless A4 tubes attached to the dinghy's cleats.

USAGE OF TENDERCONNECT®

C1. HOW DOES IT WORK?

A bowline is important at your dinghy to handle the dinghy with TenderConnect. But we do assume, that your dinghy already has a bowline attached.
So the question is, how do you attach the dinghy to the receivers?
Additionally to the bowline you need a stern line. Attach the stern line to the eyelets of the cantilevers. Make sure, that the stern line is long enough, that you can handle it when you are standing at the stern of your yacht.
Using bowline and stern line together enables you, to turn the dinghy easily so that it stands with its back to the stern of the yacht. Hold both lines all the time, do not throw away the bow line, but work mostly with the stern line.
If the backend/stern of dinghy looks into your direction, hold the stern line with two hands and lift the dinghy with both hands up, pull it slightly towards the stern of the yacht and let it fall on to the receivers. Mostly the cantilevers fall automatically into the receivers. If this is not happening, pull a little bit on the ropes in your hand until the cantilevers fit into the receivers. If necessary and possible let your foot help to move the cantilever to the receivers. After some tries you can do it without additional help, quickly and easily.
Now the dinghy is connected to the stern of the yacht and if the receivers are high enough attached to the stern, the dinghy is secure and even when the ship moves in the waves, it will not disconnect.
Now you have to pull the dinghy up using the bowline. Make sure, before you fit the bowline to the after stay or wherever you will attach it, move the bowline through the stern line and than attach the bowline. Make sure the stern line is long enough, that it does not influence (pull down) the bowline when it is attached. This ensures, that the stern line cannot fall into the water and therefore it is safe during the journey.
Double check, that the dinghy is in 60 to 80 degree angle or possible directly connected to the sterns superstructure.

The **dinghy has to be in an angle between 60° and 80° degree** so that the gravity holds the dinghy down. Pulling it tighter is only possible when you can mount it directly to the superstructure of your boat, for instance after stay, reeling, cabin house, you name it. **Pulling it higher than 80° with out directly attachment**, leads to an unstability and therefore the dinghy moves during the journey and **may lead to damages**.
If the stern of yacht allows it, and there will not be any damage at the receivers, you can transport it at 90 to 110 degrees. BUT in this situation, because there is no natural stability, the dinghy must be fixed at some parts of the boat, so that it cannot move. There shall be no pressures between the receivers and the cantilevers, because this would destroy the cantilevers.

ATTENTION

Letting the dinghy down is the same procedure the other way around. Loosen the bowline from wherever you attached it. Let the dinghy down slowly and keep the stern line in the hands. When dinghy is down, take both sides for the cantilevers out of the receivers in parallel by holding the stern line in each of your hands. Pull it slightly up and move it outside, let it fall to the water. Take now the bowline to pull your dinghy to yourself.
Thats it.

Dinghy pulled up to the davids.

C2. FOLD UP TO THE BACKSTAY

If the stern of yacht allows it, and there will not be any damage at the receivers, you can transport it at 90 to 110 degrees. BUT in this situation, because there is no natural stability, the dinghy must be fixed at some parts of the boat, so that it cannot move. There shall be no pressures between the receivers and the cantilevers, because this would destroy the cantilevers.

C3. WHERE DO I GET HELP?

For any questions, remarks :
Email: installation@tenderconnect.eu
Telephone: +49 89 813 00 470 or +49 172 8563 146
If you wish, that we should install TenderConnect at your yacht, feel free to get an offer.
We will do it for a reasonable price.

Have a lot of fun with TenderConnect!
If you are satisfied with TenderConnect, tell all your boating friends about TenderConnect.
If not, tell us, what you think or the problems you might have.


TOMOS

Dinghy transportation

tender connect

safe easy fast

FOR AN UNOCCUPIED FOREDECK