The Dinghy Davit

Installation manual

Version: underneath swim platform

Read the instructions carefully before starting the installation.

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Required tools for installation:

- ☐ Tape measure
- ☐ Drill
- ☐ Drill bit 1/8”, 5/32’’,11/64'', 3/16’’, 1/2’’
- ☐ Drill bit 3/8’’ for stainless steel
- ☐ Hole saw 1 1/4’’
- ☐ Caulking gun
- ☐ White Sikaflex™-291 LOT sealant tube
- ☐ Allen wrench 5/16’’
- ☐ Ratchet and socket 9/16’’ et 3/4’’
- ☐ Bit for hexagonal head screw 1/4’’
- ☐ Bit for hexagonal head screw 3/8’’
- ☐ Adjustable wrench
- ☐ Star screwdriver
- ☐ Square screwdriver (Robertson #2)
- ☐ Wrench 9/16 et 11/16
- ☐ Red thread locker
- ☐ Marker
- ☐ Pliers
- ☐ Funnel
- ☐ Hydraulic oil AW32 (1 gallon)

Included parts list:

Reference	Description	Quantity
10	Frame assembly	1
11	Swivel deck	1
30	Fixing plate (2 holes)	2
31	Fixing plate (1 hole)	2
40	Round tube (male)	2
41	Round tube female	2
42	Square tube (male)	2
43	Square tube (female)	2
44	Round tube support	2
45	Square tube support	2
50	Hydraulic pump	1
51	Hydraulic pump bracket	2

52	Negative batterie cable 1.2 m (4’) (black)	1
53	Positive batterie cable 1.2 m (4’) (red)	1
54	Safety switch	1
55	Wired control	1
60	Hydraulique hose 3 m (10’)	2
61	Through-hull fitting	1

Installation kit for Ski-doo Spark

Reference	Description	Quantity
70	Back plate	2
71	Ring	2
72	Bolt 3/8''	2
73	Washer 3/8'' OD: 1.5''	2
74	Washer 3/8'' OD: 0.875''	2

Included hardware:

Reference	Description	Quantity
A	Flat head bolt 1/2’’ x 1.25''	6
C	Hexagonal head bolt 1/2’’ x 1.25''	2
D	Hexagonal head bolt 1/2’’ x 2.5''	2
E	Hexagonal head bolt 1/2’’ x 3.5''	2
F	Washer 1/2’’	12
G	Nylon locknut 1/2’’	18
H	Hexagonal head bolt 3/8’’ x 2''	4
I	Hexagonal head bolt 3/8’’ x 2.5''	4
J	Hexagonal head bolt 3/8’’ x 0.75''	2
K	Nylon locknut 3/8’’	6
L	Flanged hexagonal head screw 3/8'' #14 x 1.5''	8
M	Flanged hexagonal head screw 1/4'' #8 x 1''	4

Important note

Apply red thread locker on every bolt during installation

1. Transportation box opening instruction

Required tools :

- Square screwdriver (Robertson #2)
- Wrench 3/4’’
- Ratchet and socket 3/4’’

Required parts :

- Transportation box

Step 1

Remove all screws from the box cover and put it aside.

Step 2

Remove the cardboard boxes and other individually wrapped items from the transportation box and keep them nearby.

Step 3

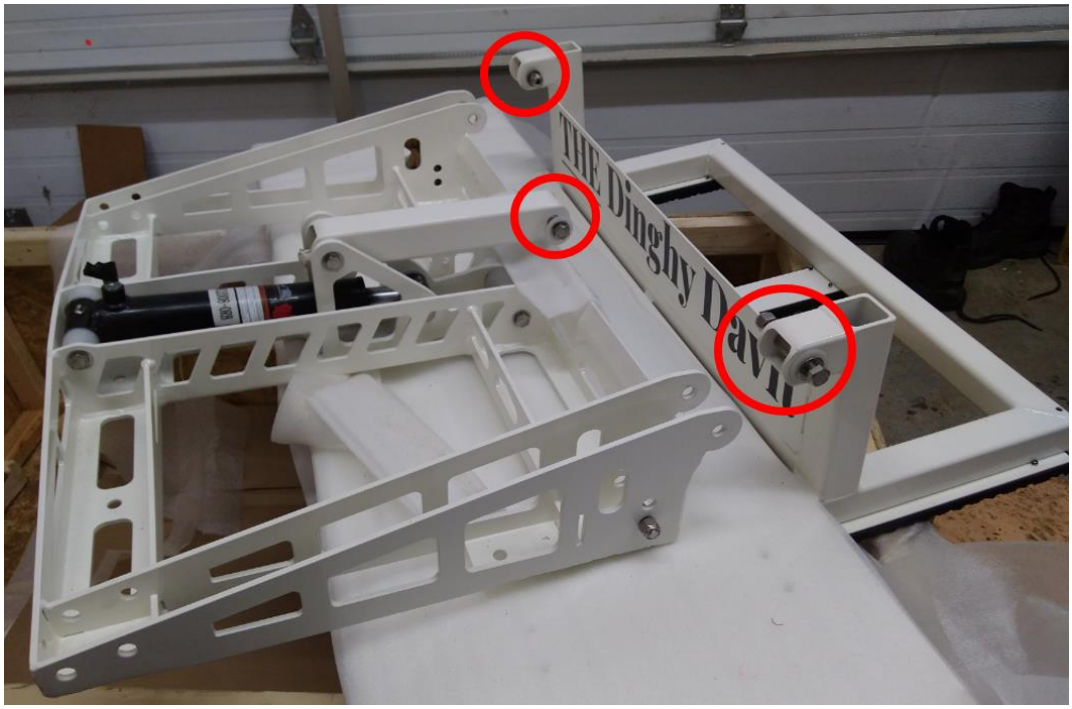
Remove the wooden blocks screwed against the inner wall of the box.

Step 4

Remove the frame assembly (10) and the swivel deck (11) from the box by lifting it at an angle. Put the assembly on top of the box.

Step 5

Unbolt the frame (10) from the swivel deck (11) by removing the three bolts indicated.



2. Frame installation underneath swim platform

Required tools :

- Tape measure
- Marker
- Drill
- Drill bit 1/2’’
- Wrench 3/4’’
- Allen wrench 5/16’’
- Caulking gun
- White Sikaflex™-291 LOT sealant tube

Required parts:

- 1x Frame assembly (10)
- 2x Fixing plate (30)
- 2x Fixing plate (31)
- 6x Bolt (A)
- 6x Nut (G)
- 6x Washer (F)

Step 1

Determine the center of the swim platform crosswise. Position the chassis under the swim platform toward the rear, making sure to center it properly. It is recommended to insert temporary posts in the chassis assembly (10) in order to keep it in position during installation.

The pivot holes on the chassis assembly (10) must be aligned with the rear edge of the swim platform to allow the swivel platform (11) to close properly.

Trace the outline of the chassis as well as the position of the 6 fixing holes under the platform using a marker. The fixing plates (30, 31), which will be positioned on the top of the platform must be well pressed against the surface.

Step 2

Drill the 6 holes in the swim platform using a 1/2 '' drill bit. It is recommended to use the chassis assembly as a drilling guide.

*The holes must be **perpendicular** to the surface of the platform.*

Step 3

Apply Sikaflex ™ sealant under the platform where the chassis (10) will be located.

Step 4

Reposition the chassis (10) underneath the swim platform. Secure the frame assembly (10) with bolts A, nuts (G) and washers (F). Tighten all bolts once to 5 lb-ft. Repeat the sequence with a torque of 44 lb-ft (60 Nm).

Use the mounting plates (30 and 31) to distribute the load over a larger area. Apply Sikaflex ™ sealant under the mounting plates (30 and 31) before installing them.

3. Installation of round tube support to transom

Required tools :

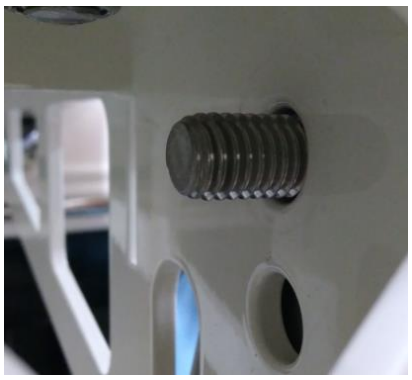
- Level
- Marker
- Drill
- Drill bit 11/64'' or 3/16''
- Drill bit 3/8'' for stainless steel
- Wrench 9/16''
- Ratchet and socket 9/16''
- Caulking gun
- White Sikaflex™-291 LOT sealant tube
- Bit for hexagonal head screw 3/8''

Required parts:

- 2x Round tube (40)
- 2x Round tube (41)
- 2x Round tube support (44)
- 2x Bolt (C)
- 4x Bolt (H)
- 6x Washer (F)
- 2x Nut (G)
- 4x Nut (K)
- 8x Screw (L)

Step 1

Attach the flat end of the female tubes (41) to the frame (10). Two holes can be used for this purpose. Choose the one that offers maximum clearance. **Make sure to use 3 washers (F) per bolt (C)**.



Step 2

Attach the round tube supports (44) to the end of the tubes (40) using bolts (H) and nuts (K). **Do not tighten, they will be disassembled later.**

Step 3

Insert the male round tubes (40) inside the female round tubes (41).

Step 4

Position the supports for round tubes (44) on the transom of the boat. They must be positioned as low as possible and open at least 24'' more than the top section or close inward by at least 24'' more than the top sextion, while taking into account the clearance for the sterndrive.

Step 5

Once the position of the support is determined, use a marker to draw their outlines. **Ensure they are laid flat against the transom.**

Step 6

Disassemble the supports from the tubes. Drill 11/64'' holes in the transom at 1.5'' deep.
It is recommended to use the support for round tube (44) as drilling templates.

Step 7

Apply Sikaflex ™ around each hole and under the support, then screw the supports (44) to the transom using the screws (L).

Reinstall the male round tubes (40) on the round tube supports (44) using bolts (H) and nuts (K).

Step 8

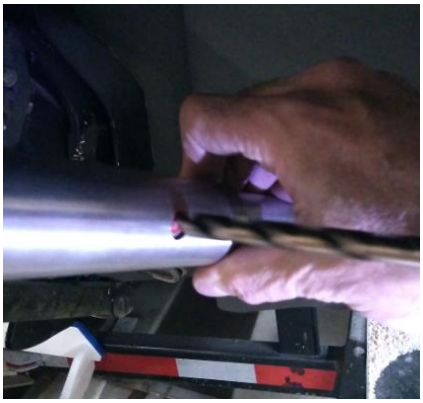
Tighten the bolts (C) and (H) at each ends of the support tubes, observing the torques indicated.

44 lb-ft (60 Nm)

22 lb-ft (30 Nm)

Step 9

Drill a hole in the male round tube (40) through the pre-drilled hole on the female round tube (41) using a 3/8 "drill bit**. It is recommended to drill one side at a time in order to get a well-centered hole.**



Step 10

Use the bolts (H) and nuts (K) to keep the tubes (40 and 41) in their final position. Tighten with a torque of 22 lb-ft (30 Nm).

22 lb-ft (30 Nm)

4. Installation of square tube support to transom

Required tools :

- Level
- Marker
- Drill
- Drill bit 11/64'' or 3/16''
- Wrench 9/16''
- Ratchet and socket 9/16''
- Caulking gun
- White Sikaflex™-291 LOT sealant tube
- Bit for hexagonal head screw 3/8''

Required parts:

- 2x Square tube (42)
- 2x Square tube (43)
- 2x Square tube support (45)
- 2x Bolt (D)
- 2x Bolt (E)
- 4x Bolt (I)
- 4x Washer (F)
- 4x Nut (G)
- 4x Nut (K)
- 8x Screw (L)

Step 1

Secure the end of the female square tubes (43) between the frame reinforcements (10) using bolts (E), nuts (G) and washers (F). Two holes may be used for that purpose. Choose the one that offers maximum clearance. Make sure to use 2 washers (F) per bolt.

Step 2

Attach the supports for square tube (45) to the end of the tubes (42) using bolts (D) and nuts (G). **Do not tighten, they will be disassembled later.**

Step 3

Insert the male square tubes (42) inside the female square tubes (43).

Step 4

Position the supports for square tube (45) on the transom. They should be positioned as low as possible.

Step 5

When the position of the square tube support (45) is determined, use a marker to indicate the position of the holes. **Make sure that the support sits flat against the transom.**

Step 6

Drill 11/64'' holes in the transom at 1.5'' deep**. It is recommended to use the brackets (45) as drilling templates**. Draw the outline of the brackets.

Step 7

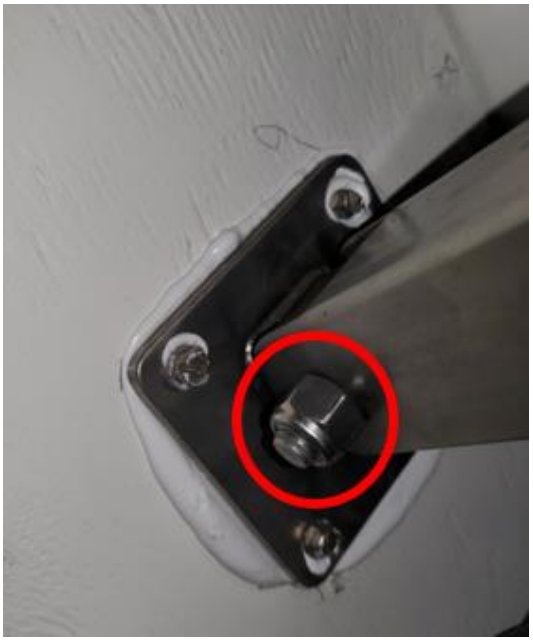
Apply Sikaflex ™ around each hole and under the support, then screw the supports for square tube (45) to the transom of the boat using the screws (L).

Reinstall the square male tubes (42) on the square tube supports using bolts (D) and nuts (G).

Step 8

Tighten the bolts (D) and (E) at both ends of the support tubes, observing the torques indicated.

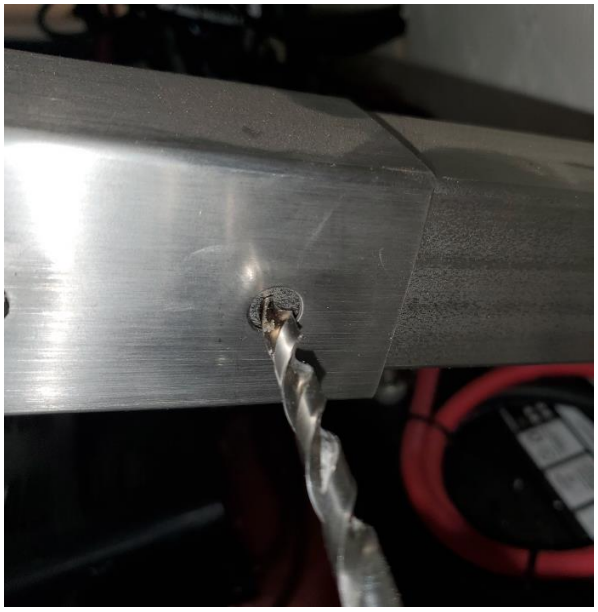
44 lb-ft (60 Nm)



22 lb-ft (30 Nm)

Step 9

Drill a hole in the male square tube (42) through the pre-drilled hole on the female square tube (43) using a 3/8 "drill bit. **It is recommended to drill one side at a time in order to get a well-centered hole.**



Step 10

Use the bolts (I) and nuts (K) to keep the tubes (42 and 43) in their final position. Tighten with a torque of 22 lb-ft (30 Nm).

22 lb-ft (30 Nm)

5. Hydraulic pump installation

Required tools :

- Wrench 1/2'', 9/16''
- Funnel
- 1x Gallon of hydraulique oil AW32

Required parts:

- 1x Hydraulic pump (50)
- 1x Hydraulic pump support (51)
- 1x Negative batterie cable (52)
- 1x Positive batterie cable (53)
- 2x Bolt (J)
- 4x Screw (M)

Step 1

Determine the location where the hydraulic pump (50) will be installed (near a battery should be considered in order to facilitate the connection). **The electric motor of the pump is not ''explosion proof'' certified. Good ventilation is necessary to eliminate flammable vapors build-up.**

Step 2

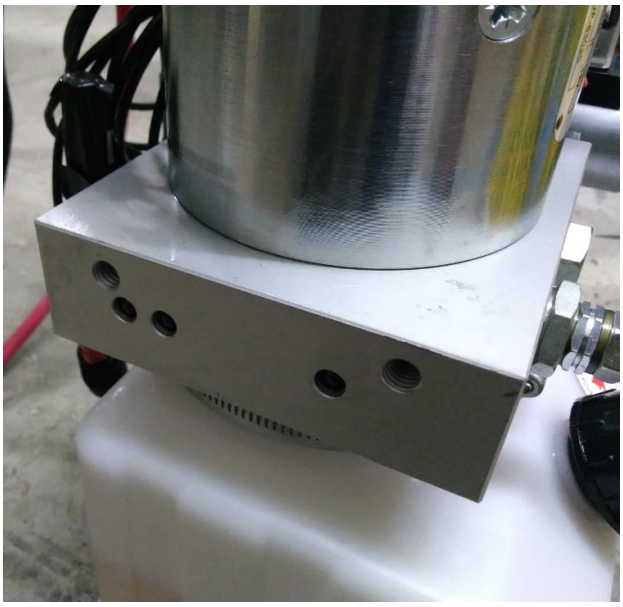
Attach the hydraulic pump support (51) to a vertical wall using the screws (M). Use the support most suited to your environment.

Step 3

Before installing the hydraulic pump (50) in the boat, fill the pump tank with AW32 hydraulic oil.
Pay special attention when filling so as not to contaminate the oil.

Step 4

Attach the hydraulic pump (50) to the pump support (51) using the two bolts (J).



Step 5

Connect the negative cable (52) to the negative pole of the nearby battery.

Step 6

Connect the positive cable (53) to the positive pole of the nearby battery.
Disable the relay on the pump when connecting.

Step 7

Install the hydraulic pump (50) safety switch (54). It should be positioned inside the boat towards the back. 10’-0'' of wire is included. This switch activates the wired control and the remote control (optional).
It is recommended <u>not to</u> install it in a place easily accessible to children.

Make sure to respect the order in which the wires are reconnected in the event connectors have to be disconnected from the safety switch.

Step 8

Connect the wired control's cable (55) to the corresponding connector on the hydraulic unit.
It is recommended to install the control bow in the stern area of the boat in order to facilitate the use of ''The Dinghy Davit''. **Warning: the control is not water resistant.**

6. Hydraulic hoses installation

Required tools :

- Market
- Hole saw 1 1/4''
- Drill
- Drill bit 5/32''
- Wrench 9/16'', 5/8'', 11/16''
- Caulking gun
- White Sikaflex™-291 LOT sealant tube
- Star screwdriver
- Pliers

Required parts:

- 2x hydraulique hose (60)
- 1x Through-hull fitting (61)

Step 1

Use a marker to identify both ends of <u>one</u> of the two hydraulic hose (60). Both hoses (60) are identical and measure 3 m (10'-0'') each. They will be used to connect the hydraulic pump to the fame cylinder (10).
Do not remove the plugs at the end of the hoses before the pump connection step.

Step 2

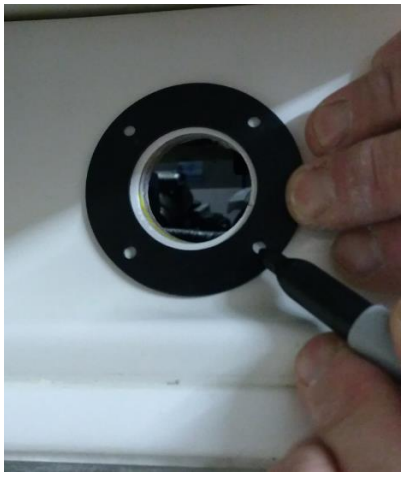
Determine the location where to drill a hole in the hull to insert the hoses so they easily reach the pump: center of the boat under the swim platform, near the transom. A thru-hull fitting (61) is included to provide a watertight installation.

Step 3

Drill a hole in the hull at the location determined to pass the hydraulic hoses (60). Use a 32 mm (1 1/4'') hole saw.

Step 4

Use the rubber washer included with the thru-hull kit to identify the location of the screw holes. Use a 5/32'' drill bit to pre-drill.



Step 5

Pass the two hydraulic hoses (60) through the hull.

Step 6

Thread all the thru-hull components (61) onto the hydraulic hoses (60).

Step 7

Connect the identified hose (60) at the base of the hydraulic cylinder and the other hose (60) on top of the cylinder. **Do not tighten the connectors.**

Connector # 1 can be rotated 90 ° by unscrewing the lock nut. **Always unscrew the connector to place it at the desired angle.**

Step 8

Apply a generous amount of Sikaflex ™ sealant around the thru hole. Position the rubber washer and apply sealant to it as well.

Step 9

Position the retaining washer and fix it to the hull using the screws provided. Tighten enough to see the sealant come out around the retaining washer.

Step 10

Place the rubber plug on the hydraulic hoses so that the cone formed by the outside wall points outwards. Apply sealant on the hoses and cap.

Step 11

Adjust the length of the hydraulic hoses (60) outside the boat. They should not be tight nor too loose to the point of hanging. It is possible to fix them to the frame (10) using clips. Position the retaining ring on the rubber plug and secure it with the bolts provided.

Step 12

Tighten the hose connectors (60) to the hydraulic cylinder. Hold the hose (60) with pliers and tighten the ring with an 11/16 "wrench.

Step 13

Once the thru-hull fitting is properly installed, bring the other end of the hydraulic hoses close to the pump to make the connection. **Avoid any tight radius in the hydraulic hoses (60).**

Step 14

Connect the hoses to the hydraulic valve on the pump.

Connect the identified hose on port A of the valve.

Connect the other hose to port B of the valve.

7. Swivel deck installation

Required tools :

- Wrench 3/4’’
- Ratchet and socket 3/4’’

Required parts:

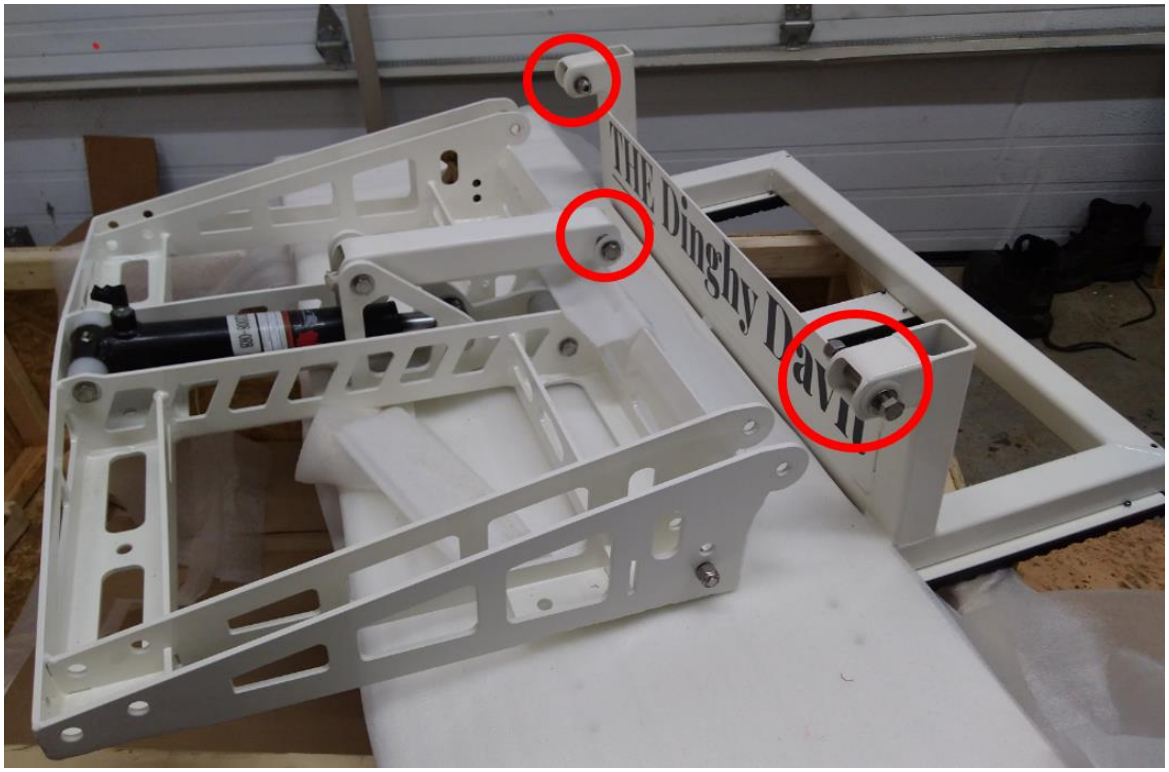
- Swivel deck (11)

Step 1

Put the swivel deck (11) in the ‘’closed position’’ over the extension plate (20). Insert a 1.5'' thick piece of wood between the extension plate (20) and the swivel deck (11) to facilitate the alignment of the pivot holes.

Step 2

Attach the swivel deck (11) to the frame (10) by inserting the provided bolts into the pivot holes, as well as those at the end of the actuating arm. Make sure to use a washer with the bolt and the nut and to insert the nylon washers between the pivot points. Tighten with a torque of 44 lb-ft (60 Nm).



44 lb-ft (60 Nm)

8. Rings installation for Sea-doo Spark

Required tools :

- Drill
- Drill bit 3/8’’
- Allen wrench 5/16’’

Required parts:

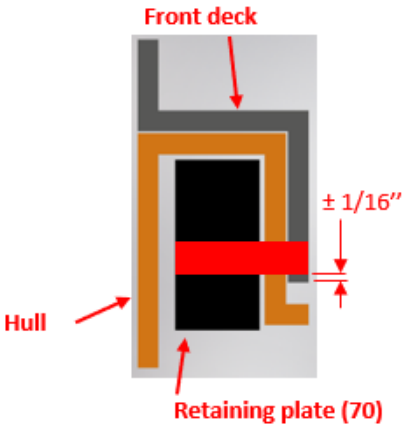
- 2x back plate (70)
- 2x Ring (71)
- 2x Bolt (72)
- 2x Washer (73)
- 2x Washer (74)

Step 1

Locate the junction between the hull and the junction of the decks.

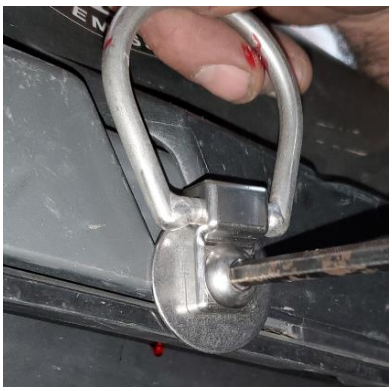
Step 2

Drill a hole using a 3/8 '' bit in the outer wall of the gasket. Use the threaded hole in the retaining plate (70) to determine the exact height of the hole. The retaining plate (70) must be positioned inside the seal and firmly pressed towards the top of the slot. **Caution not to pierce the inner wall.**



Step 3

Slide the back plate (70) inside the seal and screw the bolt (72) along with the ring (71) and the washers (73 and 74). The pivot of the ring (71) must be on the top part of the bolt. **Apply thread locker around the bolt**. Tighten with a torque of 22 lb-ft (30 Nm).



Step 4

Repeat steps 1 to 3 at 35 ¾'' behind the location of the first ring. The exterior of the drill bit must be at 1/16'' of the lower wall. Position the pivot point of the ring on the top part of the bolt (72).