

REVOLUTION ROWING

Sculling Boat Hoist Assembly and User's Manual



Items in the box:

- (2) Hoist Cradles Assemblies
- (2) 4 Foot Rails
- (1) 1 3/4 Inch X 12 Inch Rail Coupler
- (1) Winch Assembly
- (2) Single Pulley Assemblies
- (1) Double Pulley Assembly
- (3) 4 Inch X 1/4 Inch lag screws
- (6) 2 1/2 Inch X 1/4 Inch bolts
- (11) 1/4 Inch Flat Washers
- (2) 1/4 Inch Nylock Nuts

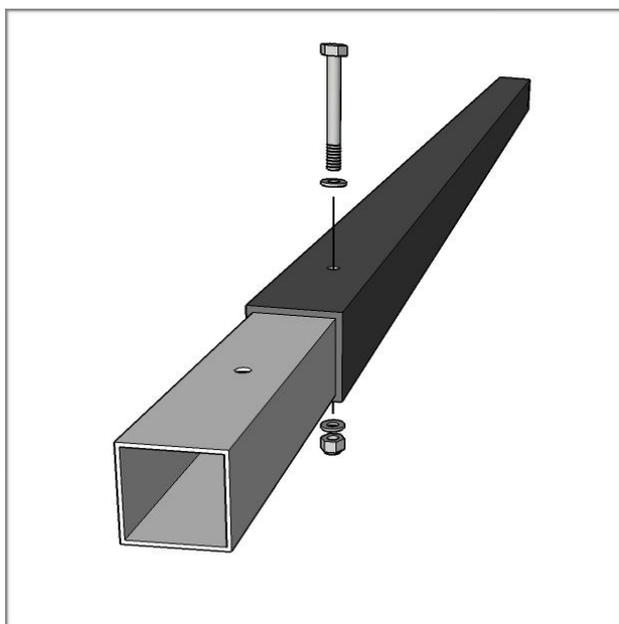
Tools Needed:

- (2) 7/16 inch Wrenches
- Old Towels, Foam Or Pool Noodles
- Tape Measure
- Stud Finder
- Weighted String Or Plumb Bob
- Pencil
- Adjustable Wrench
- Drill
- 3/16 Inch Drill Bit
- 7/16 Inch Hex Bit Or Socket Wrench
- Screwdriver (Flat or Philips)
- Ladder
- Wire snips

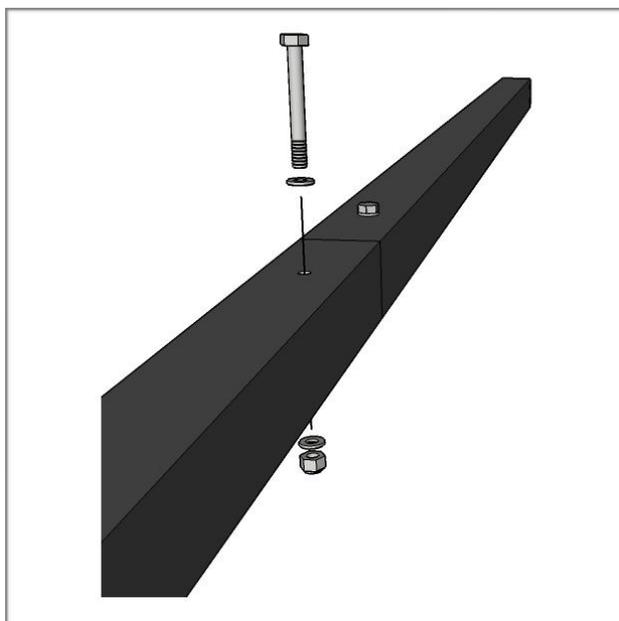
REVOLUTION ROWING[®]

Sculling Boat Hoist Assembly Manual

Step 1: Assemble the Main Rail



Join the two 4 foot rails using the 1 3/4 inch X 12 inch rail coupler, (2) 2 1/2 inch bolts, (4) 1/4 inch flat washers and (2) 1/4 inch nylock nuts. Insert the rail coupler into one of the 4 foot rails at the end of the rail that has a single hole drilled in it. Line up the holes in the coupler with the holes in the rail. Insert a 2 1/2 inch bolt with (2) flat washers and a nylock nut as shown in the diagram through the holes of the 4 foot rail and rail coupler. Tighten the nut and bolt only as tight as you can get with your fingers. Do not tighten with wrenches at this time.



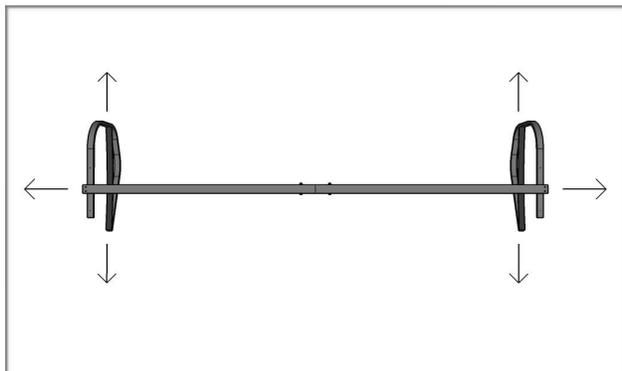
Insert the other end of the rail coupler into the other 4 foot rail, using the end of the 4 foot rail that has a single hole drilled in it. Use a pointed object, such as a pen or a pencil to line up the holes of the rail coupler with the holes of the second 4 foot rail. Insert the second 2 1/2 inch bolt with (2) flat washers and a nylock nut as shown in the diagram through the second set of holes in the 4 foot rail and rail coupler. Tighten both nuts and 2 1/2 inch bolts using your 7/16" wrenches. Tighten only as tight as you can get with your pinky fingers.

Step 2: Attach The Hoist Cradles To The Main Rail



Leave the wire on the (2) hoist cradles bundled for now. Use the remaining (4) 2 1/2 inch bolts and (4) 1/4 inch flat washers to connect the (2) hoist cradles to the main rail. Insert the bolts and washers through the holes in the ends of the main rail and thread the bolts into the threaded inserts located on the tops of the hoist cradles. Make sure your cradles face the same direction and the decal on the main rail faces downwards before tightening the bolts. Tighten the 2 1/2 inch bolts using your 7/16" wrenches. Tighten only as tight as you can get with your pinky fingers.

Step 3: Determine The Location Of Your Hoist



Place your assembled Sculling Boat Hoist frame on the ground in the area where you intend to mount it. This can be in a garage, under a deck, in a basement or in a boathouse. Level your Sculling Boat Hoist frame using soft objects such as rolled towels or pieces of foam. Place the Sculling Boat Hoist frame in the orientation that you would like it and your boat to hang overhead.

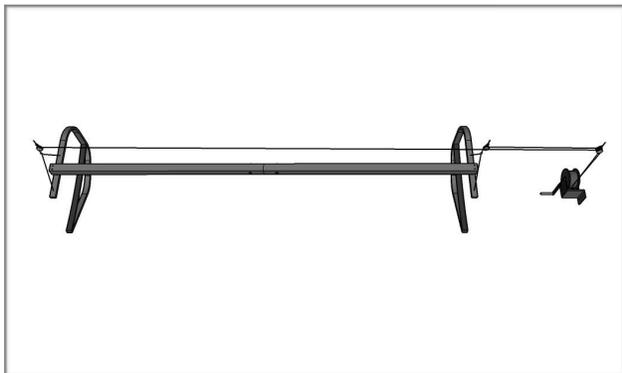
Allow for approximately 11 to 12 feet in front of and behind the cradles for the bow and stern of your boat. Allow for approximately 1 to 2 feet of wiggle room side to side. Use a tape measure to make sure you have the necessary clearance. How your Sculling Boat Hoist is oriented will be critical in determining where the pulleys anchor in the overhead joists. Depending upon where the joists are located in your ceiling, the final position of your Sculling Boat Hoist may not be exactly where you have positioned your boat (hence the wiggle room).

Determine the location of the closest joists in the ceiling using a stud finder and a weighted length of string OR a plumb bob. Options for a weighted string include a cotton string with washers or fishing line with a sinker. The weighted string will insure that you have a straight line from the hoist cradles to the ceiling. Hold your weighted string to the ceiling, allowing the weight to hang down directly over the two bolts that connect the main rail to one of the hoist cradles. Use a pencil to make a mark on your ceiling where the string meets the ceiling, making sure that the weight on the end of the line stays center between the two bolts connecting the main rail to the hoist cradle. Repeat for the other side of the Sculling Boat Hoist.

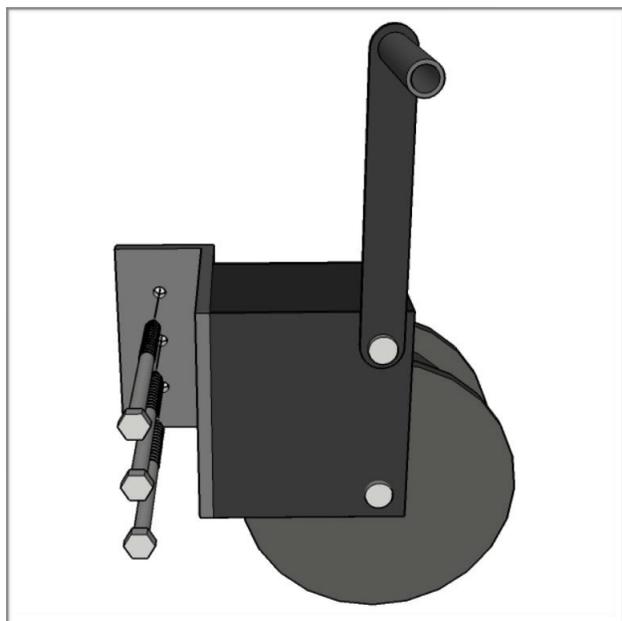
Use a stud finder to locate the closest joists to each of the pencil marks on each end of the assembled hoist frame. Put new pencil marks where you find joists and erase the old pencil marks. This will determine where you mount the single pulley assemblies. Keep in mind that where you originally positioned your assembled Sculling Boat Hoist frame may not match where it ends up being mounted. Plan accordingly so that you do not have to reposition your scull once you have fully installed your hoist. There is usually more than one place that you can install the pulleys.

Step 4: Assemble And Mount The Winch

Using the included manufacturer's directions, attach the winch handle to the winch drum using an adjustable wrench.



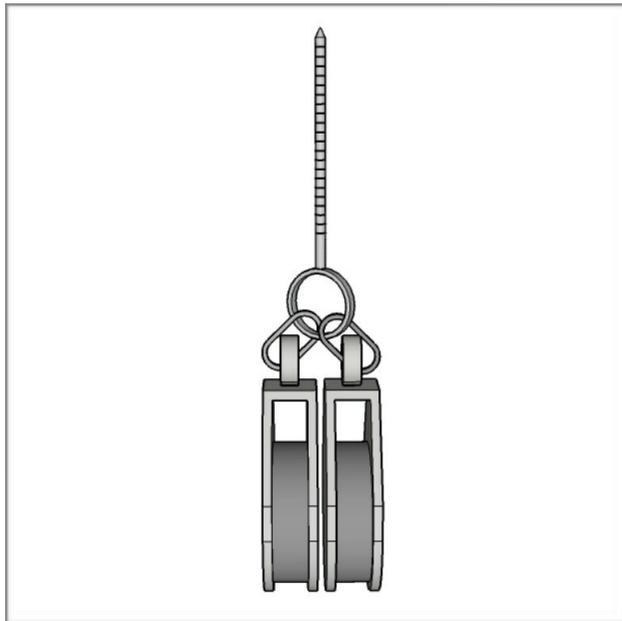
Install the winch in a location where the wires will run as PARALLEL as possible to the length of your scull. Parallel wires will put less tension on the pulleys and provide smooth operation. Once you have determined where you want to install your winch, use a stud finder to locate the nearest stud in the wall.



Place the winch assembly against the stud with the round drum facing downwards. Use one of your 1/4 inch x 4 inch lag screws to make impressions where the mounting holes of the hoist winch assembly meets the stud or wall. Use a drill with a 3/16 inch drill bit to drill pilot holes where you just made the impressions. Use your drill and a 7/16 inch hex bit OR a socket wrench with a 7/16 inch socket to screw the 1/4 inch X 4 inch lag screws flush through the mounting holes on the winch assembly and into the pilot holes in the stud.

Warning! Your hoist winch assembly MUST be securely anchored to a wooden studs and NOT drywall alone. If you have studs of a different material, please contact Revolution Rowing immediately. Double check that the winch assembly is secure to the wall by grabbing it and giving it a good shake to make sure there is no wiggle and that you can not pull it out of the wall.

Step 5: Mount The Overhead Pulleys



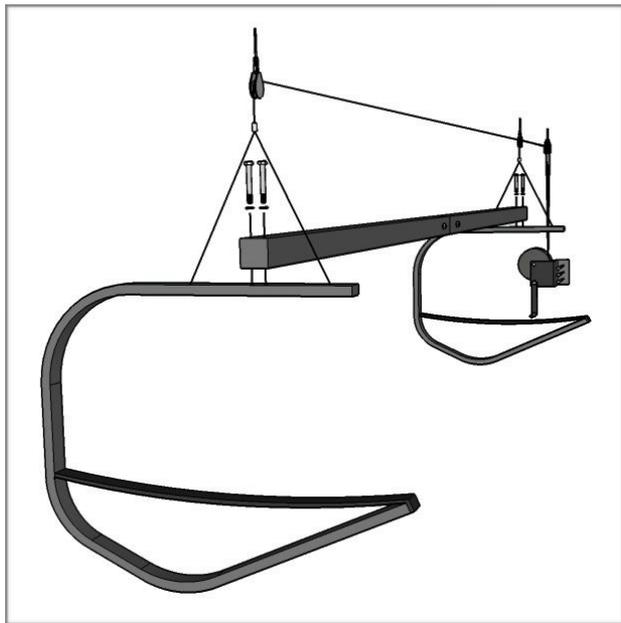
Find the nearest ceiling joist directly above the newly mounted winch assembly. Use your drill with a 3/16" drill bit to drill a pilot hole directly into this joist. Mount the eye screw that has the two attached pulleys in this location. Using a screwdriver for leverage, twist the eye screw attached to the pulleys into the joists. Make sure the eye of the eye screw is as deep into the joist as possible. Rotate the eye screw until it is flush with the joist or the drywall.



Using a drill with a 3/16" drill bit, drill pilot holes into the joists at the marks in your ceiling that you made in Step 3. Using a screwdriver for leverage, twist the (2) eye screws that have a single pulley attached into each of your pilot holes in the ceiling joists. Make sure the eye of the eye screw is as deep into the joist as possible. Rotate the eye screw until it is flush with the joist or the drywall.

Warning! The pulley assemblies MUST be securely anchored to wooden joists or beams and NOT drywall alone. DO NOT mount the pulleys into bare drywall or plywood. Only a wood joist or beam will give the hoist system enough strength to lift and hold your boat. If you have ceiling joists or beams made out of a different material, please contact Revolution Rowing immediately.

Step 6: Attach The Wires To The Pulleys And The Winch



Unbundle the wire attached to the hoist cradles. Use a ladder to feed the wire first through the single pulleys installed directly above the hoist cradles and then through the double pulley mounted directly above the hoist winch assembly. When feeding the wires through the double pulley, make sure to not criss cross the wires. Wires should run parallel to one another. Feed the wires through the back side of the winch (the base side of the winch) and through the wire clamp on the winch drum. Do not tighten the clamp just yet. Take the slack out of the wires such that the hoist raises a

few inches off of the ground. Make sure you take the slack out of the two wires evenly so that the hoist sits level. Tighten the wire clamp on the winch drum using an adjustable wrench to hold the wires in place. Use a pair of wire snips to cut the excess length of wire away from the drum. You should leave enough excess wire so that it can make 2 wraps around the drum of the winch.

Warning! Be absolutely sure you have mounted your hoist where you want it and that the place is evenly taken out of both lines (with your Sculling Boat Hoist hanging level) before cutting any excess wire. Your winch comes with either (2) 30 foot or (2) 40 foot long lengths of wire. If you require longer lengths of wire, please contact Revolution Rowing immediately.



Sculling Boat Hoist User's Manual

Step 1: Brake Winch Operation

Check the operation of your fully assembled Sculling Boat Hoist by rotating the handle on the winch clockwise to slowly lift your Sculling Boat Hoist about a foot off of the ground. Keep the towels or pads that you used earlier under the Sculling Boat Hoist while testing in case the winch should fail. The drum on the winch should click when lifting your Sculling Boat Hoist, indicating that the brake on the winch is engaging. If the brake on the Sculling Boat Hoist is working properly, you should be able to take your hand off the winch handle without the hoist falling back to the ground on its own. Please note that because of the heavy duty nature of the winch, initially you might have to hang some weights on the cradles of the Sculling Boat Hoist to confirm that the brake is functioning. If the brake on your winch is not engaging, please contact Revolution Rowing immediately. Once it has been confirmed that the brake on the winch works, rotate the winch handle counterclockwise and lower your Sculling Boat Hoist back to the ground.

Step 2: Load Your Scull

You are now ready to load your boat into your Sculling Boat Hoist. For this step, continue to keep the towels or pads that you used earlier under the Sculling Boat Hoist while testing in case the winch should fail.

Rotate the handle on the winch clockwise to lift your Sculling Boat Hoist to waist level. While you can load/unload your scull overhead or at shoulder level, it is recommended for safety purposes that you load/unload at waist level.

The Sculling Boat Hoist is made to allow for easy one person loading/unloading. Your hoist should naturally lean backwards so that the openings to the hoist cradles are more accessible when loading/unloading. Once your scull is loaded, the hoist cradles should level out, but still retain a small amount of backwards lean. In addition to being a feature that aids in loading/unloading, this is also a design safety feature to keep your scull from accidentally falling out.

To load/unload your scull from your Sculling Boat Hoist, lift your scull from the center balance point and rest the scull on the Sculling Boat Hoist cradles so that they are directly fore and aft of the cockpit of your boat. Finally, secure your scull in place by hooking the attached bungee cords to the wire closest to the opening of the hoist cradles.

Step 3: Re-Check The Brake On The Winch

Test the brake on the winch again by lowering your scull and Sculling Boat Hoist. Use the following procedure anytime you lower your Sculling Boat Hoist.

1. Keep your hand on the winch handle and do not remove it.
2. Rotate your winch handle counterclockwise to lower the scull and Sculling Boat Hoist from waist level to a few inches lower.
3. Keep your hand on the winch handle and rotate clockwise until the drum clicks 2 to 3 times. These clicks confirm that the brake on your winch is functioning.
4. Remove your hand from the winch handle cautiously to confirm the brake has indeed engaged. Your scull and the Sculling Boat Hoist should stay in place.

Warning! For safest operation, post these steps near your winch. If your brake fails to engage, remove your scull from your hoist and discontinue use. Contact Revolution Rowing immediately for service.

Step 4: Raising And Lowering Your Sculling Boat Hoist

Once you have confirmed that the brake on the winch works with your scull loaded in the cradles of the Sculling Boat Hoist, go ahead and rotate the handle on your winch until your boat is fully lifted. As you raise and lower your Sculling Boat Hoist, allow the wire to spool on and off the drum of the winch evenly from side to side. Your sculling boat hoist can be lifted until the “V” in the wire above the hoist cradles reaches the pulleys.

Warning! Periodically check the wires and all other hardware for corrosion, wear and fatigue (especially if your Sculling Boat Hoist is used outdoors). Remove your scull and discontinue use if any wear is found. Contact Revolution Rowing immediately for service.

Still have questions? 770-561-9995 or info@revolutionrowing.com

Sculling Boat Hoist Use Guidelines

When using Revolution Rowing Sculling Boat Hoists, there are precautionary measures that the user must follow. The following list will guide you to use your product in a safe manner.

- Only use approved fasteners and mounting hardware provided by Revolution Rowing to assemble and Sculling Boat Hoists. Fasteners and hardware should be inspected periodically for wear, corrosion and fatigue.
- Never exceed the manufacturer's recommended weight limit for your Sculling Boat Hoists. Total load weight is the sum of the weight of your scull plus the weight of accessories. Total load weight should not exceed 80 lbs.
- Never stand under your Sculling Boat Hoist while it is being operated.
- Keeps hands clear of all moving parts when your Sculling Boat Hoists are being operated.
- Check your braking winch periodically for smooth operation of the brake. Replace winch immediately if the braking feature does not work.
- Consult Revolution Rowing if you have any questions about the operation or limitations of Revolution Rowing products.

Limited 30 Day Warranty

Effective September 3, 2015

Revolution Rowing will warranty all Revolution Rowing brand Sculling Boat Hoists manufactured by Revolution Rowing for a period of 30 days after purchase. This warranty is available to the original retail purchaser and will terminate if the purchaser transfers the product to any other person.

Subject to the limitations and exclusions described in this warranty, Revolution Rowing will remedy defects in materials or workmanship by repairing or replacing, at its option, a defective product without charge for parts or labor. In addition, Revolution Rowing may elect, at its option, not to repair or replace a defective product but rather issue to a purchaser a refund equal

to the purchase price paid for the product, minus shipping charges.

No warranty is given for defects caused by normal wear and tear, cosmetic rust, scratches, accidents, unlawful storage, or modification of, or any types of repair of, a Revolution Rowing storage product other than those authorized by Revolution Rowing.

No warranty is given for defects resulting from conditions beyond Revolution Rowing's control including, but not limited to, misuse, overloading, or failure to assemble, mount or use the product in accordance with Revolution Rowing's written instructions or guidelines.

No warranty is given for Ultra-Tow Brake Winches sold with Revolution Rowing Sculling Boat Hoists.

No warranty is given for Revolution Rowing products purchased outside of the United States.

In the event that a product is defective, the purchaser should contact Revolution Rowing via the contact information available at the web address at the bottom of this page.

In the event that a product needs to be returned to Revolution Rowing, Revolution Rowing will provide the purchaser with the appropriate mailing address and any additional instructions. Please note that the purchaser will be responsible for the cost of mailing the product to Revolution Rowing.

Disclaimer of Liability

Repair or replacement of a defective product or the issuance of a refund or credit (as determined by Revolution Rowing) is a purchaser's exclusive remedy under this warranty. Damage to a purchaser's vehicle, cargo and/or to any other person or property is excluded.

This warranty is expressly made in lieu of any and all other warranties, express or implied.

Revolution Rowing's sole liability to any purchaser is limited to the remedy set forth above. In no event will Revolution Rowing be liable for any lost profits, lost sales, or for any consequential, direct, indirect, incidental, special, exemplary, or punitive damages or for any other damages of any kind or nature.