

SAWYER OARS STANDARD 1 $\frac{5}{8}$ " INTERNAL DIAMETER

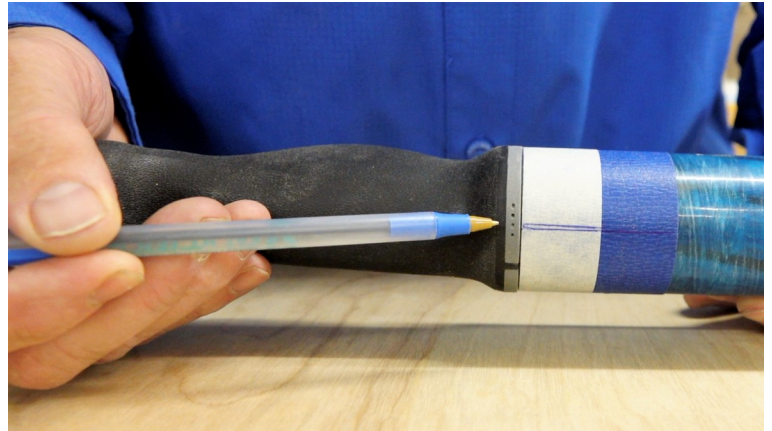
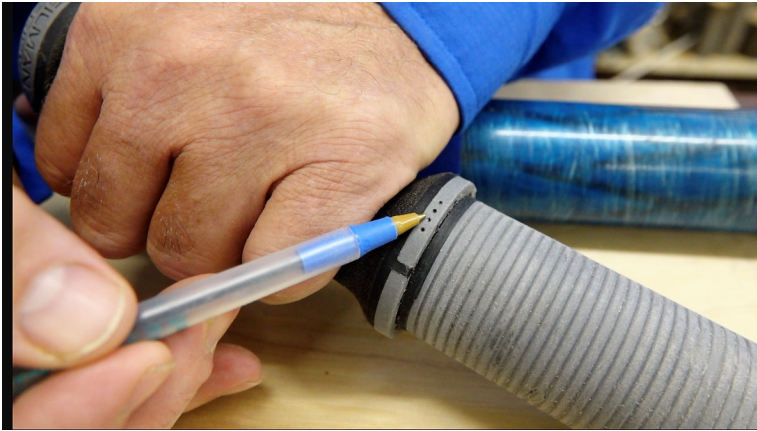
Gilman Grips will fit into and are compatible with all Sawyer composite 1.625" Internal Diameter (I.D.) oars. Here's the step-by-step process for installing your Gilman Grips:

1) Remove the set screw.

2) Remove the factory oar handle. You do not need to remove the foam plug. You will knock out the remaining part of the grip with a steel slug. We recommend doing this outside to avoid damaging the floor. Insert a solid 1 $\frac{3}{8}$ " to 1 $\frac{1}{2}$ " diameter steel rod 4" to 12" long into the oar shaft with the oar grip pointing down toward the ground. Raise the oar up and down quickly so that the full weight of the steel rod is knocking the grip out like a hammer. Continue until the grip is knocked out. This method is very quick and effective. On the final blow, the steel rod will come out and hit the ground hard. Keep your feet out of the way and wear protective footwear. Scrape out any remaining silicone from inside the oar shaft before installing your Gilman Grips.

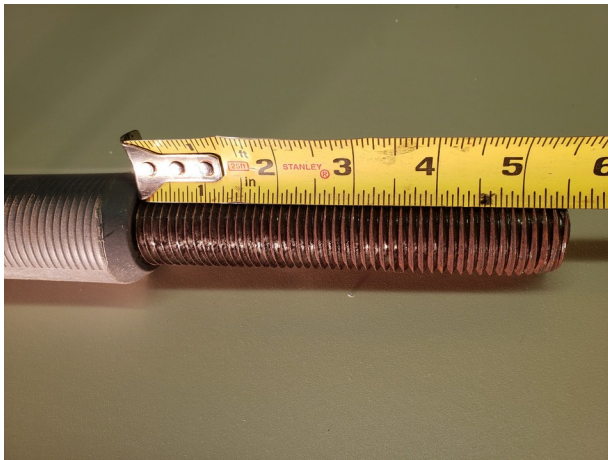
3) Indexing your Gilman Grips. The correct indexing/clocking is critical, and these directions must be followed precisely.

- A. Wrap a piece of 2" wide masking tape all the way around the oar shaft on the end where the grip will go. You will be drawing two lines on the tape at the center of the oar shaft on the top of the oar in step B. The top of the oar will be directly in line with the $\frac{3}{4}$ " button hole at the blade end of the oar. You will use these two lines to index your Gilman Grips to the top of the oar blade.
- B. Next, you need to find the center of the oar shaft. Place the oar on a flat surface long enough to support the full length of the oar. A flat floor, counter or table should work fine. Shim up each side of the blade end of the oar (with something the same height like two books or two same-sized blocks) until the blade sits flat. Next, elevate the grip end of the oar shaft with blocking or a book. Find a flat object that is 1" thick. On the button side of the oar shaft (the button is down by the blade), place your 1" thick object against the oar shaft at the grip end of the shaft and let it rest on top of the blocking you are using to prop up the grip end. Using your 1" object as a guide, trace a line on the tape with a ballpoint pen where the top of your 1" object hits the oar shaft. Rotate the oar 180 degrees, place your 1" object against the oar shaft where you drew your first line, and trace another line using your 1" guide. Now you will have two lines on the same side of the oar very close together. Your oar's **center line** is centered between these two lines. IMPORTANT: If there is any movement/play in the oar blade at the button, it is important to take all the movement out by twisting the oar shaft in the clockwise direction for one line and in a counterclockwise direction for the other line. This will give you the true center/top of the oar blade.
- C. Indexing your Gilman Grips. You will find four small round indexing marks on the collar of your Gilman Grips. The collar is the part of the grip that will butt up to the end of the oar shaft. The collar will be Gray on the Black grips or Lime Green on the Purple grips. When you install your Gilman Grips in step 5, you will find the second indexing mark from the top of the grip, and line this indexing mark up with your **center line** and the top of your oar blade.



4) Installing counterbalance. If you don't have counterbalance, go directly to step 5.

- A. Place the Gilman Grips all-thread counterbalance in a vice or have someone hang onto the counterbalance with large channel locks or a pipe wrench while you screw the Gilman Grips on by hand. Do not use any tools to hold the Gilman Grips, or you may damage them. Rotate the Gilman Grips handle clockwise by hand until the all-thread bottoms out and is sticking out $5\frac{1}{2}$ " past the end of the Gilman Grips cylinder.
- B. Add a small bead of silicone around the base of the cylinder at the all-thread to secure the all-thread to the Gilman Grips.



5) Installing your Gilman Grips. If needed, adjust the cylinder diameter to create a snug fit into the oar shaft.

- A. Oar shafts have slight differences in the inside diameter (I.D.) size. You may need to slightly adjust the diameter of the Gilman Grips cylinder for the proper fit. Sand down the diameter of your Gilman Grips cylinder to create the desired fit using 80-100 grit sandpaper. Have someone hold the grip so the cylinder overhangs the edge of a bench. Don't put the Gilman Grip in a vice, which may damage it. Next, place a $\frac{1}{2}$ sheet of sandpaper over the top of the cylinder. With one hand on each end of the sandpaper, slide the sandpaper back and forth, so you are sanding the top half of the cylinder. Repeat this process by rotating the grip 3 times using one-third of a rotation each time. Be sure to sand the cylinder evenly including the black TPE gasket at the collar each time. Repeat until you have the correct fit. Be sure the Gilman Grips will slip all the way into the

- oar shaft before applying silicone.
- B. Once you have a snug fit, remove the Gilman Grips and apply silicone to both the inside of the oar shaft and to the leading edge of the cylinder of the Gilman Grips.
 - C. Using a twisting motion, push the Gilman Grips into the oar shaft, stopping before the black TPE gasket which rests against the collar.
 - D. Pull the Gilman Grips most of the way out with a twisting motion. Check to make sure there is 100% silicone coverage. Use a paper towel to wipe off any excess silicone that might squeeze out as you push the Gilman Grips tight onto the oar shaft.
 - E. Push the Gilman Grips tight onto the oar shaft, lining up the second indexing mark on the collar with the center line between your two indexing marks on the masking tape. Refer to step 3(C) above for more detail on proper alignment. It's best to slip the grip all the way in, then rotate the Gilman Grip to the correct indexing mark. Do not bang the grip on the floor or use a hammer.
 - F. Pre-drill and countersink for the set screw. If you are using a Gilman Grips counterbalance, you will need to switch to a $\frac{5}{8}$ " long stainless steel screw. Make sure to predrill the size of the screw shank at least $\frac{1}{4}$ " into the steel rod so the tip of the $\frac{5}{8}$ " screw has space to go into. Be careful not to break the screw, and do not use a screw longer than $\frac{5}{8}$ " if you are using counterbalance. Set the screw by hand and not with a screw gun so you do not break the screw or strip out the threads.
 - G. Let the silicone dry indoors in a heated room for at least 4 days. This is an important step, as the silicone is what holds the Gilman Grips in place.

See our website's Help Center section for How-To videos. Please note, we recommend using silicone for installations on Sawyer oars. This will make it easy to remove the Gilman Grips if you break an oar shaft. Silicone also allows for a wider range of oar shaft diameter variations than spray 90 adhesives. If you have a snug fit spray 90 adhesive will work fine and is an approved installation method.

My cell number is 406-763-6464. Please give me a call if I can help. If you happen to be in Whitefish, MT, I would be happy to install your Gilman Grips for you.