

SCOUT Projects:

Removable Sea Chest Strainer—Generation 2



m/v SCOUT (Great Harbour N37)

Ray Henry

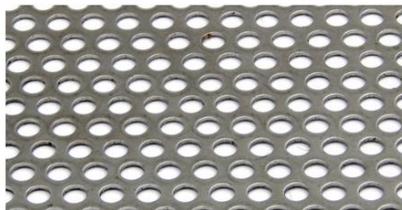
Description

We have been enjoying the ease of use and cleaning of the new sea strainer. All has worked well. As mentioned in the previous write up, [RemovableSeaChestGrate.pdf](#), I wanted to make a more robust grate with a lower pressure hold down stick at some point. This is that update.

Parts Ordered

1. Perforated Sheet ([onlinemetals.com](#))

**0.06" Thick x 0.125" Hole x 0.1875" Stagger Stainless Perforated Sheet
304 Round Hole - Part #: 13517**



QTY

\$31.30 ea.

\$31.30 for 1

Dimensions

Thickness: 0.06" Hole Size: 0.125" Stagger: 0.1875"

Open Area: 40%

[See all available dimensions for this product](#)

12.0" X 12.0" - \$31.30 ea.

2. Fiberglass Rods ([tapplastics.com](#))

Fiberglass Round Rod



Available in 6' lengths. 65%-75% glass content for maximum strength. Cut with a hack saw or tilesaw.

Enter Specifications

3/16 in x 6 ft Round Fiberglass Rod - \$2.95

Length

Quantity

Price \$2.95

Add To Cart

3. Rod Ends



Yoohey 10pcs M4 Ring Shape Lifting Eye Nut 304 Stainless Steel Threaded Nut Fastener

Sold by: [Yoohey](#)

Return window closed on Nov 20, 2019

\$5.99

Buy it again

View your item

4. Edge Trim



M M SEALS D044-5F Black U Channel Edge Trim Seal EPDM 17/32" high x 3/32" Wide (5 Feet)

Sold by: M M SEALS

Return eligible through Jan 31, 2020

\$7.75

Buy it again

View your item

Design

As outlined previously, the first round of grates used a larg(er) diameter rod and I felt that it might put too much strain on everything and was not really required. I found some smaller, 3/16" diameter fiberglass rods to use for these new strainers. This required a smaller eye bolt diameter to thread and epoxy to the end of the rods.

I re-used the eye straps from the first set.

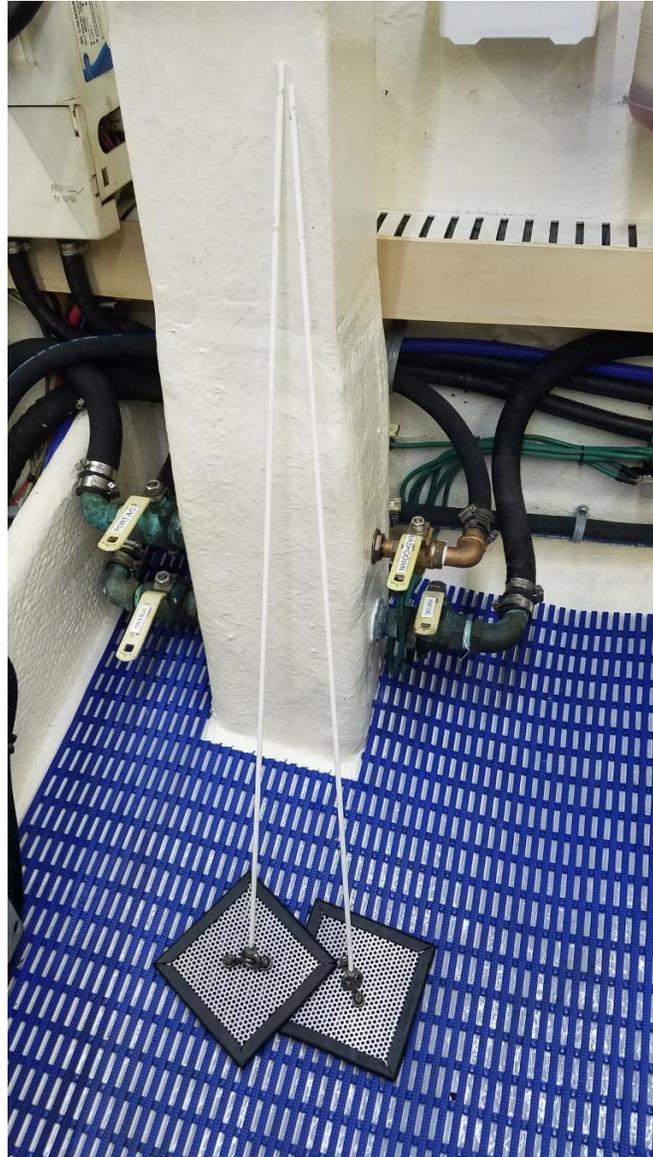
I found that there was a way to angle the grate on the way down the sea chest during insertion that didn't require the through-hull cutouts on the sides, so the new grates were designed square with rounded corners (much easier to cut). I also found a downside to the entire arrangement 😞 see Comments section below.

I initially cut the stainless grates and eased the edges with rough sandpaper. While this worked, the hard edges of the metal still scraped up the bottom paint in/around the sea chest opening more than I liked. I found some rubber C-channel and glued it to the edges of the grates with 5200. Luckily the grates were small enough in length and width to allow the thickness of the back edge of the trim to still work. Some of the ones are a bit snug, but still work OK. If planning to use the C-channel from the beginning, I probably would have cut them 1/16" to 1/8" smaller.

Completion

Again, I made several units (the 12"x12" stainless perforated sheet is enough for 4 grates) to alleviate potential breakage or to replace immediately and clean later. Since the photo below, I have trimmed off and rounded the corners of the rubber to match the corner radius of the sea chest.

They work really well and appear much more "substantial" than the ABS plastic ones. The new rod tension appears much better, applying just the right pressure on the lip below.



Do-Overs and Comments

I have found with both versions of the grates that it is possible to allow them to get diagonal upon insertion and slip out sideways all the way through the opening in the hull (outside the boat). This makes it VERY hard (without visibility) to pull them back up inside. Two solutions to this might be to create an "X" across the large hole when building the lip around the hull opening or create a different hinge/swivel mechanism (2D vs. 3D) with the fiberglass rod that would allow them to stay only parallel to the side walls on the way down the chest.

In any case, its not enough of a problem, if inserted carefully, for me to worry about it at this point. Just wanted to note the caution.