Outboard Engine Hinged Bracket

Robin Whittle

It is some time now since I first became interested in a hinged bracket for the outboard engine. In 2015 Alex Crook wrote an article in the Practical Boat Owner (589 Summer 2015).

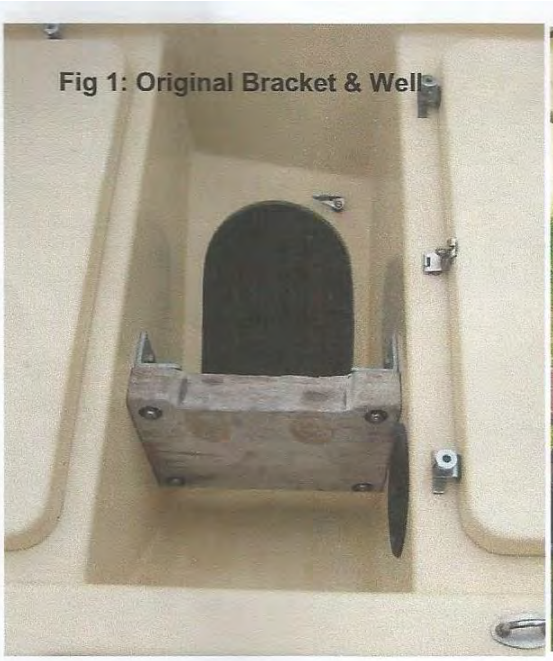


Fig 1: Original Bracket & Well

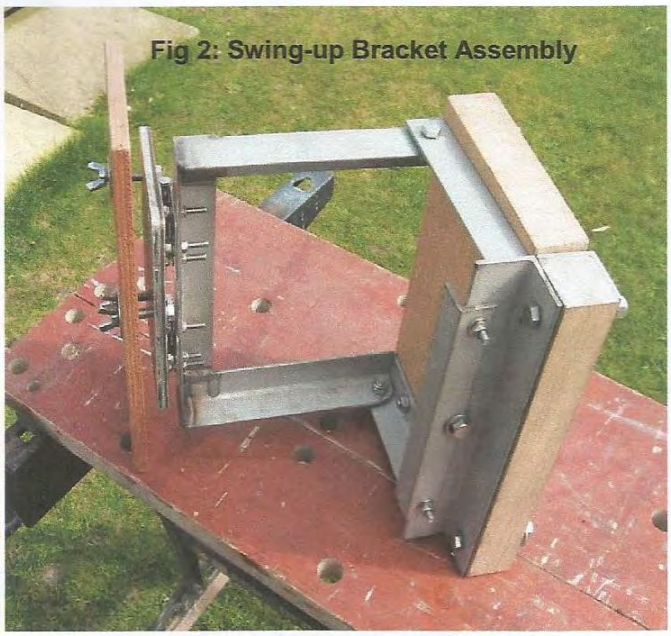


Fig 2: Swing-up Bracket Assembly

Fig 3: Swing-up Bracket Fitted in Boat

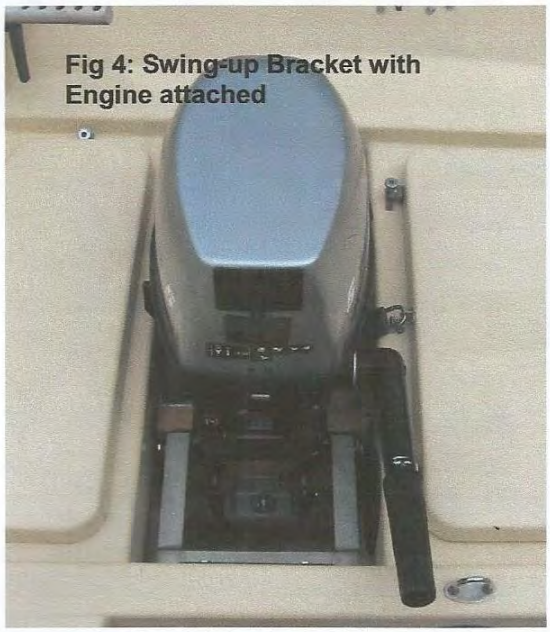
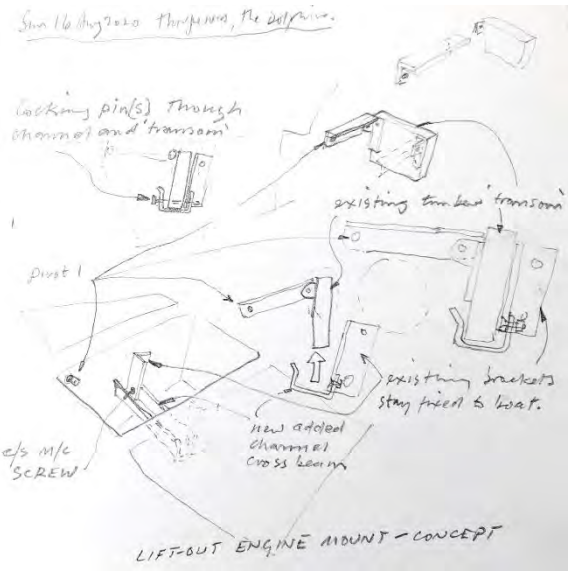
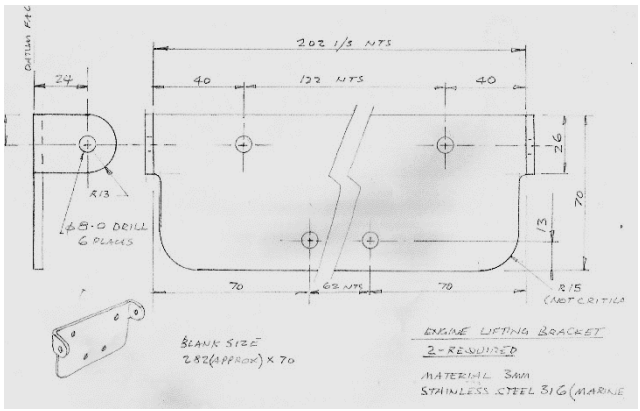


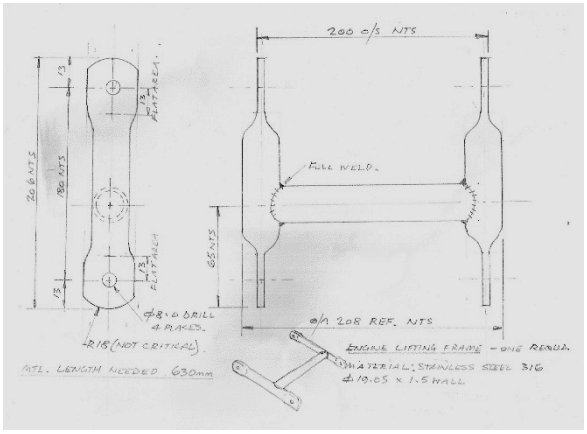
Fig 4: Swing-up Bracket with Engine attached

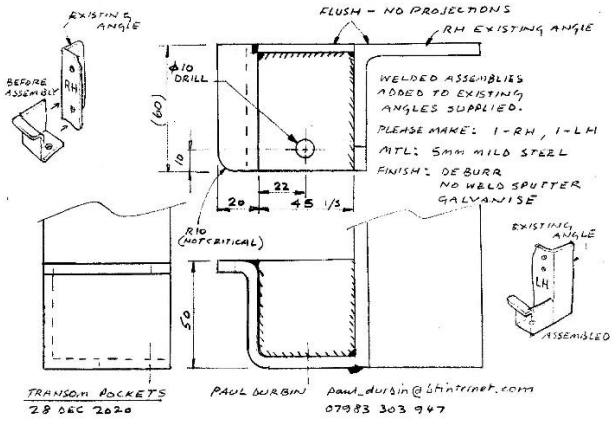
After an exchange of emails with Alex I decided to wait until I had a reasonable spell of time available.

It wasn't until August 2020, during the Aldeburgh Racing Week, that I suddenly became interested again. One of the other competitors, Paul Durbin, was discussing some of the enhancements that he had made to his Mk 1 Shrimper (No. 96). I mentioned Alex's invention, and agreed to send Paul a copy of the PBO article. He immediately got busy doodling. These rapidly developed into production sketches:







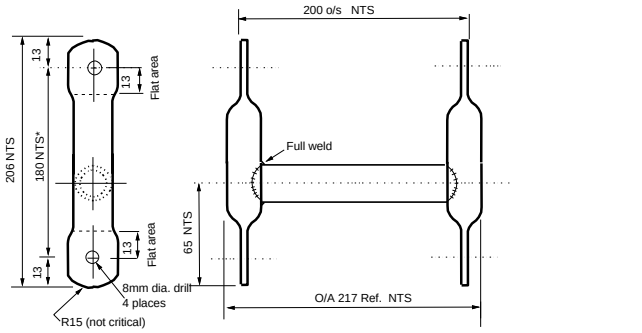


From these Paul had the lifting frame and brackets made up in stainless steel. The existing supporting angles were made of galvanised steel, and he had the transom pockets welded to them and then had them re-galvanised.

One point that we discussed concerned the need to bolt the transom in position. The system relied on the weight of the engine to keep it located in the sockets welded to the angles. We decided that locking pins might be necessary in choppy conditions. Paul found a neat clevis pin to do the job.

The outcome of Paul's design is as shown below:

My version follows Paul's design very closely. The existing supporting angles in my boat were badly rusted and I decided to replace them with stainless steel with welded transom pockets. For me, the main purpose of the hinged frame was to be able to raise the propellor out of the water when the boat was sitting at its mooring. This avoided the growth of weed and barnacles. Another important reason was to be able to clear the propellor of weed.



* NB: This dimension turned out to be 185mm

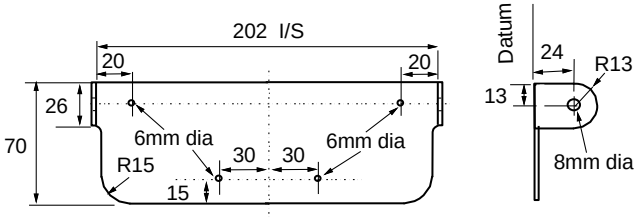
Material: *Stainless steel '316' (marine) 20mm dia. x 1.5mm wall*

Finish: *deburr,no unsightly scratches, no welding burn marks, polished.*

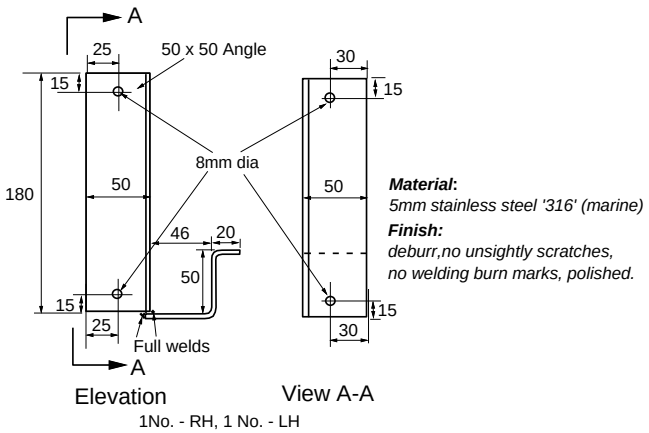
Engine Lifting Frame – 1No. reqd.

Material: *3mm stainless steel '316' (marine)*

Finish: *deburr,no unsightly scratches, no welding burn marks, polished.*

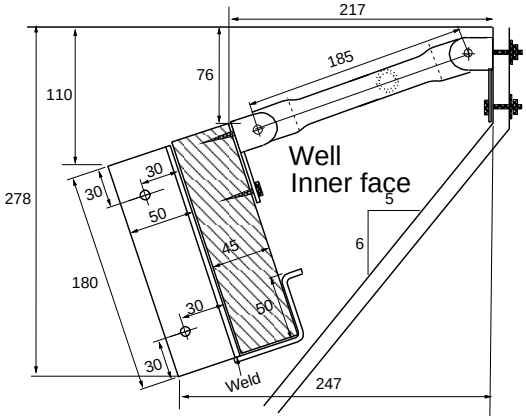


Engine lifting bracket – 2 No. reqd.



1No. - RH, 1 No. - LH

Engine fixed frame



View from starboard

Word of Warning: The dimensions given for each of the designs are specific for the boats for which they were made. The required dimensions are likely to be different for any particular boat.

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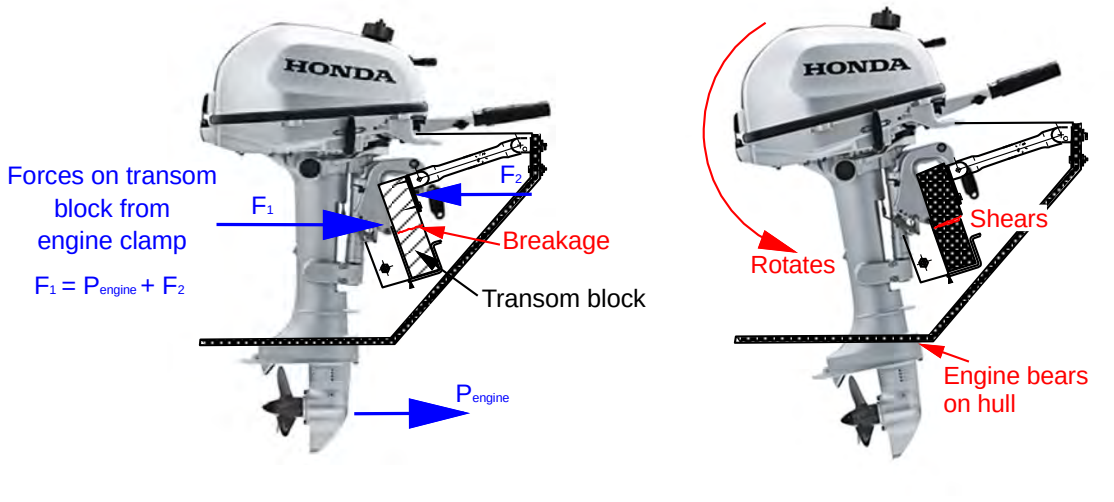
Outboard Engine Hinged Bracket
Modifications to Transom Block

My outboard engine bracket appeared to be working well throughout the 2022 season. It was only when I raised the engine for the last time that I found that the transom block had split across into two parts. This allowed the engine to rotate when in the down position. Figure 1 shows what had happened.



Before….. **….and After**

Figure 1: Split in transom block

I have made repairs to ensure this will not happen again.

Repairing the transom block

The break in the transom block has been glued with epoxy resin and three 4mm diameter stainless steel screws, 100mm long have been screwed in from the bottom to clamp the two parts together as shown in Figure 2.

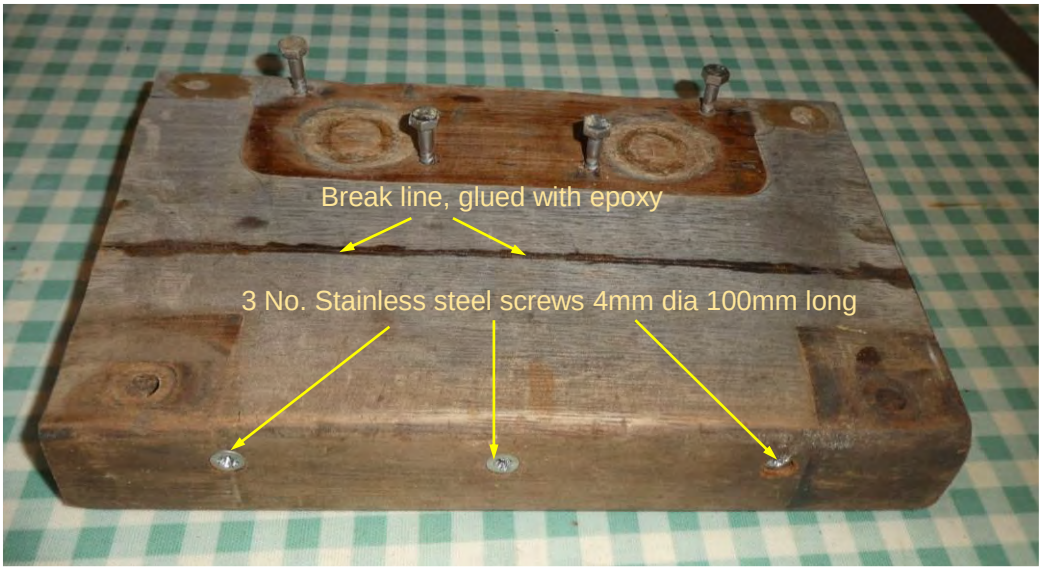


Figure 2: Repair work to transom block

Adding two stiffener stainless steel plates to the sides of the transom block

In order that the twisting forces from the engine can be transferred to the bottom of the transom block safely I have added two stainless steel plates to the sides of the block. In order to ensure that the block does not stick in the down position I have shaved off a sliver of wood from the bottom back face of the transom block. These changes are shown in Figure 3.

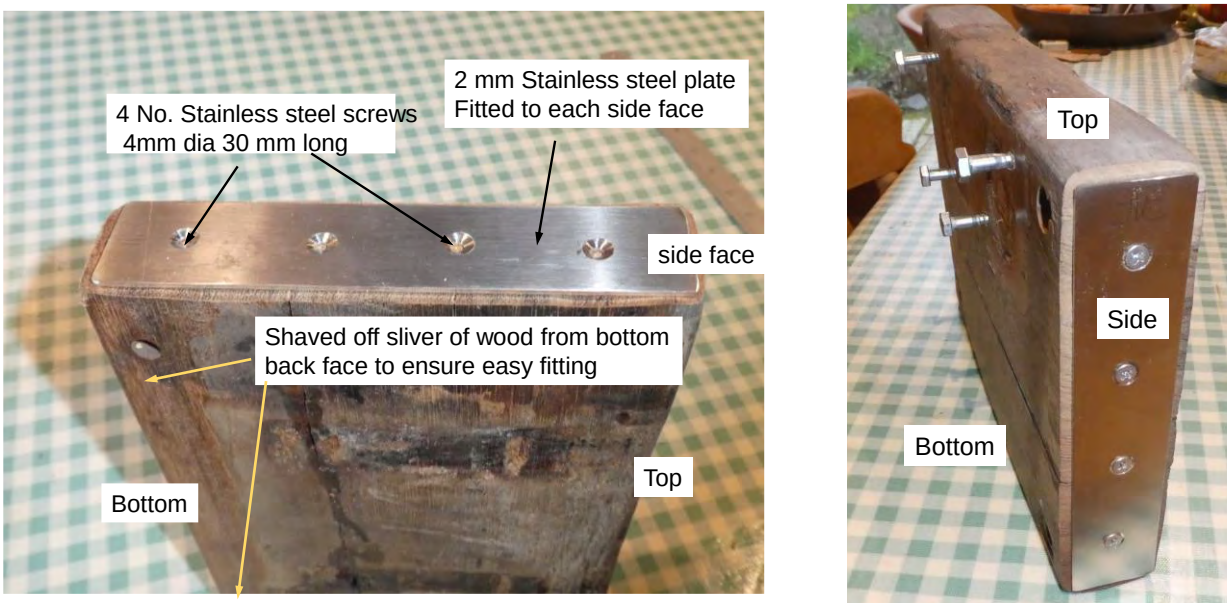


Figure 3: Addition of two stainless steel plates to the sides of the transom block

rtw 10/1/2023