



Presenting the third instalment of F&B's resident DIY (Do-It-Yourself) Tony Ravenscroft's 7 Part Series rebuilding a Mako 20 from little more than scrap.

## Rebuilding The GRP Mako 20 - Part 3

**A**dding length to a boat is definitely not a common modification, and for good reason; it's a big, potentially expensive job that can have an uncertain outcome. I should point out that I concede that adding a pod to a boat is common and they are hard enough to get right as it is. However, what I am talking about is lengthening the actual hull and I can only recall personally seeing one or two trailer boats lengthened this way.

### Starting Off – Why Lengthen?

When I first found the Mako, it was

a good, clean slate. It was already completely gutted; the transom had been cut out and as an original centre console, I made the decision to stay with the centre console layout.

There were a few conditions on that; I didn't simply want a big open cockpit with a small box for the steering wheel in the middle. I had some very definite uses in mind for the boat.

Centre consoles are generally considered hard core fishing boats, and I certainly did want to do some offshore fishing with it. But it also had to serve as a dive boat, ski boat and overnighter; so many potential uses

meant some careful design work had to be done.

Basically, I felt that I could achieve what I wanted the boat for, if I had three things as core requirements in my design.

First was a portafino transom, the type with a swim platform that is part of the boat. Second, I wanted a console unit large enough to incorporate a locker big enough to be considered a small cabin. It had to be just large enough to serve as a toilet and change room.

Third was to be a platform arrangement in the bow that could either be a casting platform, a seat, or a large bunk for camping, and that meant that it had to be around two metres long.

I didn't need to be a mathematician to work out that it was going to be a tight fit but this was a Mako 20 so I had twenty feet to fit it in. My first rough design drawings told me I could fit it all in, just. I would be tight, but it would all fit in twenty feet. The catch was to come, because after I measured the boat, I discovered that my Mako 20 was in fact only nineteen feet long. Maybe it had shrunk in the wash; more likely the "20" tag was a case of wishful thinking by the manufacturer.

It is this type of situation that may start you thinking about lengthening a boat. Straight away I certainly started to think about stretching the hull, something I had previously considered for two other boats and had rejected each time as too risky. But to be honest with myself I was looking for any excuse to stretch the hull to 21 feet or 6.4 m, because I had always wanted a boat that was over the 20-foot mark.

The fact that the hull was already stripped out and needing a new transom, bearers and floor anyway made the idea just that little more attractive.

So I wanted to make this a longer boat - what were my options?

### Options For The Longer Shot!

I figured there were only three real alternatives. First was the usual solution i.e., to stick a pod on the back and incorporate my swim platform into that. However, there were a number of reasons why I didn't want a pod.

They can be difficult to set up so that the boat performs correctly and there are a number of design issues



You have seen this picture before, but this time we are looking at it to make the decision regarding how do we start? The first question to answer was: Do I replace the transom before the stretching process, or cut away what was left of the outer transom skin add the length to the hull then rebuild the transom? Like most jobs of this nature there is more than one way to do it, so no one way is necessarily the right way. However in this case I chose to replace the missing outer transom skin first.



Replacing the transom skin was actually the simplest part of the entire job. This is a standard size sheet of 12mm MDF that has a smooth melamine finish on the inside. The board is waxed and covered in a release agent so no fibreglass would stick to it. It is then held in place with self tapping screws from the outside so that they can be removed after the glass lay-up goes onto the inside. At this point I had to make sure that I had pulled the boat back into the correct shape. Part of that process was the alloy beam across the top to keep the board straight.

Important to note also is that the boat should have been taken off the trailer and set up on the workshop floor so that nothing could move at the wrong time or the trailer rollers cause a deformity to be now built into the hull via the new repair. However typical of me, I was doing this without the correct workshop facilities. I suggest you do as I say and not as I do.

At this stage it only needed to be a skin, so a layer of 450 gm chop strand mat (csm) went down first and allowed to cure. It was followed by another 450 gm csm used to bed down a layer of heavy woven rovings, a final layer of 450 gm csm is put over that to finish off the surface of the woven roving. After all that cures, the last three layers are repeated. Even though this only a skin with the real strength for the transom to be added later, it still needs to be stiff enough to retain its shape until we get to that stage.

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