

## *Cabin And Interior*

### *1. Storage (Mods Man)*

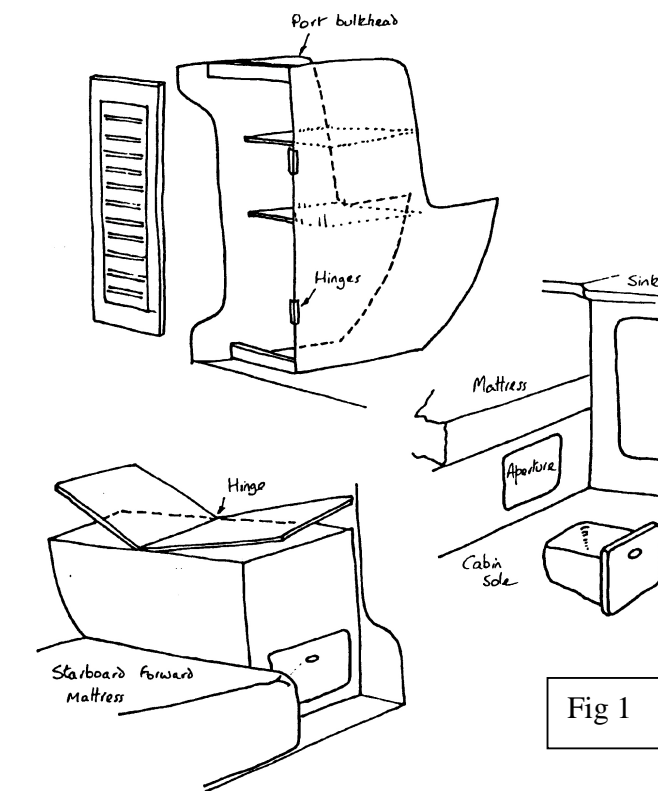
As it will be some time before our two children will need full two metre berths, I decided to increase the storage space at the expense of the two forward berths.

On the port side, 300 mm. forward of the main bulkhead, I have installed a dummy plywood bulkhead attached via self tappers to the roof inner skin and bolts through the lower edge into the bunk structure. A false base is also fitted which extends to the bunk edge lip. A small sill is required to enable the door to clear the bunk lip, and a make up piece is required at the top to match the curvature of the deck head. (See Fig 1).

Louvre doors, which are a very good match, when varnished, to teak faced ply, are easily obtained from DIY shops and provide good ventilation for clothes lockers. A couple of shelves complete the instant wardrobe. Forward of the starboard bulkhead is a food/drink store, which I have made easily detachable from the boat, so that it can be transported to the boat with all the food and most of the drink required for a weekend's cruise. This eliminates the usual innumerable cardboard boxes and polythene bags associated with arriving on board for a few days.

For the convenience of the chief cook, I have also added two drawers under the quarter berths. These were designed both to fit the galley saucepans and locate between the two vertical stiffeners of the bunk moulding. When cutting the apertures in the bunk fronts, ensure that the corners are given a generous radius to eliminate any stress concentration.

*John Burrige*



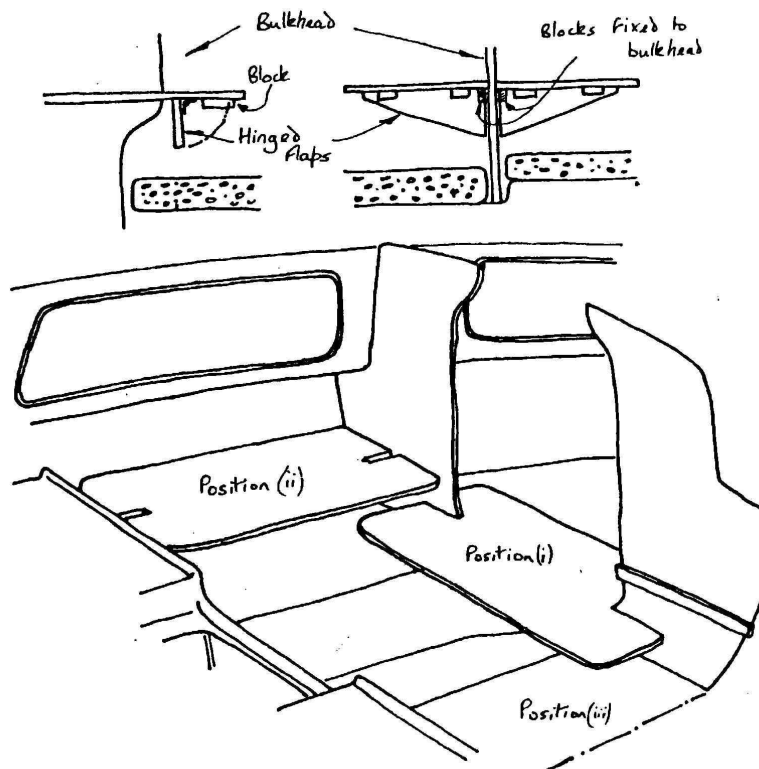
## 2. Multi-Purpose Cabin Table (Mods Man)

Figure 1 shows the table we use in our boat, which has proved very successful in it's first season. The table fits in three alternative positions:

1. Between the main bulkheads when four people wish to sit around it.
2. Between the port draining board and the bulkhead as a 'serving top', supported on rails attached to the bulkhead and draining board.
3. Between the starboard draining board and the bulkhead as a chart table.

Despite the fact that the table has no legs, it is stable enough in position 1 to have withstood the pressures placed upon it by our two children. When not in use, the table slides on runners under the starboard draining board.

Fig 1



## 3. Lining (extract from the original Building Instructions)

**Ed: Warning: Someone recently wrote in the PBO telling about how using a readily-available contact adhesive caused him to suffer liver failure. The description of his troubles makes horrific reading.**

“On cold days, especially if there is a heater in the cabin, condensation will occur. This can be eliminated, and a very de-luxe finish given to the cabin, by lining with foam backed P.V.C. headlining (see Price Lists). The lining should be 54" wide, and 12.5 metres long; the adhesive used should be

Dunlop MG 5758 and 2 litres will be required. Proceed as follows:

The 54" width will cover the aft cabin top from the aft end of the cabin to the cabin bulkheads; measure across the cabin top, from side to side, adding a bit for trimming, and cut off from roll. Apply adhesive to the cabin top - not to the lining -and locate the headlining in place; the adhesive will give you time to adjust the position of the headlining until correct. Mark the headlining with scissors along the radius between the cabin top and side, and trim off.

Measure from the aft end of the cabin to the cabin bulkheads under the side decks, add extra for trimming, and cut off the roll. Halve this along the roll to give two pieces 27" wide. These two pieces will line each of the cabin sides in the aft cabin. Apply adhesive to the boat, locate the lining in place, mark round with scissors, i.e. round the cabin bulkheads etc., and trim.

Cut out the window openings, leaving about 1/4" overlap to tuck under the window rubbers.

Repeat A, B & C for the forward cabin.

Measure from the aft bulkhead to the cabin bulkhead, along the hull, add extra for trimming, and cut off the roll. Cut this piece in half along the length, i.e. to give two pieces 27" wide; each of these will cover the hull sides from the berth tops to the toerails and from the aft bulkhead to the cabin bulkheads. Glue as previously described, mark with scissors and trim off.

Repeat E for the forward cabin, measuring this time from the forward bulkhead to the cabin. The sloping cabin front is best finished off by fitting a false panel. First bond four blocks of 9mm ply, 1 1/4" x 1 1/4" in each corner of the sloping front. Then cut from 1/8" hard-board a panel to fit the sloping front, cover it with head- lining, folding the headlining round the edges of the panel and securing on the back with staples or glue, and screw the panel to the blocks. Note that if an opening porthole is to be fitted, the hole for the porthole should be cut in the false panel before covering and fitting.

Complete the lining by covering the underside of the fore deck, the undersides of the cockpit seats, etc. To cover the joins in the headlining, cut strips of head- lining about 1 3/4" wide, fold over the edges and machine with a sewing m/c to give strips of piping about 1 " wide. Glue these over the joins with glue. The raw edges round the cabin bulkheads, and the fibreglass bonding itself, can be neatly covered by cutting hardboard shaped strips 2" wide, covering with headlining, and screwing with cups and screws to the bulkheads (see Fig. 15).

Don't forget to line the hatch before final fitting."

#### ***4. Using Carpet***

I relined the interior of my cabin (except for the headlining) with some cheap polypropylene, latex-backed, ribbed material (a bit like very coarse corduroy) that was sold as carpet for 99p. a square yard. I was a bit concerned that I would get condensation against the hull in the winter, and therefore mould within the material that I couldn't clean off. However that hasn't happened, and it's been on a few years now. I stuck it with some carpet adhesive, which was water-based, so there were no fumes to worry about, but it wasn't a contact type, so I had to keep rolling the lining for about 10 minutes to keep it in position while the glue set. I can't recall what the adhesive was called, but if I find out I'll let you know. It looks pretty good, better than the original stuff supplied by Sadlers, (at least I think so! ).

*Tony Bromley (2002)*

## **5. Using Carpet**

Polypropylene carpet lining is available from the same sources as the foam backed vinyl (e.g. Hawke House Marine) and is self adhesive. "NO MESS - NO FUSS -NO HAZARDOUS FUMES" they say. It is only 100cm. wide and at £8 per sq mtr. worked out more expensive than the vinyl, plus they recommend pre-lining the hull with a closed cell insulating foam. Add on another £3 per sq mtr. I did think about it but decided that a wipe clean/dry surface was more practical, but it does look cosy and if I'd seen it at 99p I might have gone for it. I'm now waiting for some warmer weather in order to bond blocks on where necessary for the new panels. The boat yard craning in day is 8th April so its all got to be finish...(pew I don't know what happened then, my typing all just disappeared but I found it on the desktop behind Outlook Express)...ed by then. The reason I'm doing under the cockpit seats is that they have always been done, and I'm blocking off the space under the side decks and coamings to try to keep my feet warmer on frosty nights during the fitting out season.

*Victor Simmonds (2001)*

## **6. Lining on Panels**

a) Headlining on ply panels is definitely the winning idea at the moment. I will do the forepeak and under the cockpit seats the same way and also close off the spaces under the coamings and side decks, which are open at the moment. I was a bit doubtful about putting self-tapping screws (other than very small ones) in the inner skin of the cabin roof as it seems so thin but I guess it can easily be beefed up a bit where necessary.

Does anyone know of a reliable source of fine weather so that I can actually get on with all this work before next summer? I'm planning to take all the windows out, and leave them out to provide maximum ventilation, until all the gluing is done. 'Liquid Nails' can be used on the ply panels but there does not seem to be any alternative to the solvent based impact adhesives for gluing on to the GRP. Roy's warning about the effects of the solvent (toluene) must not be taken lightly. I reckon I was lucky to actually get out of my boat at all one evening when I did the original lining. As a chemist, I ought to have known better. It is possible to get a mask to wear while using solvent based glues, which I will do this time.

*??Jeremy Ingram??*

b) I've got removable ply panels for the headlining on another boat and they're fine. A lot easier than trying to stick the headlining onto the inside of the cabin roof. There should be no need to fix wooden blocks first as the coachroof is double skinned with a foam interior so you can use self-tapping screws straight into the underside.

If you have a vent over the cooker you can see the thickness, or measure it at the side of the companionway. I doubt if self-adhesive Velcro would stick well enough to hold the ply into the curved shape.

*Tony Bromley (2003)*

## **7. Relining the interior**

Choose your lining material. Some types are smooth vinyl finish and some have a sort of corduroy finish. It's a matter of personal preference. I used vinyl on the 'ceiling' and a polypropylene material on the sides (actually some very cheap material sold as carpet by 'Trago Mills!'). I stuck the vinyl with

a contact adhesive, but it's not a pleasant job with all the fumes, there may be more suitable adhesives available now. A fan in the companionway is a good idea. The carpet material on the cabin sides I stuck with carpet adhesive, but you need to keep rollering it as it dries in not too long; much more pleasant than contact adhesive fumes.

Some of the original boats were sold with a perforated foam-backed lining material. I found this went mouldy very quickly and wasn't really suitable. I think Sadler's changed it later.

According to the original building manual, to do it all in the same material will take 12.5 metres.

Regarding relining, it can be useful to replace ceiling lining areas with foam backed PVC glued to 1mm thick marine ply backed panels. It lessens exposure to toxic and intoxicating fumes of glue, as after measuring up, the panels can be made up outside the cabin, then fastened into place with SS screws and plastic screw cups. You have to use a drill bit fitted with a screwed-on drill stop to prevent drilling through the coachroof.

Screws have to be JUST long enough to secure the panels to the inner skin of the roof. For side panels, I'm afraid you have no alternative there but to glue them on.

By the way, I was as p...d as a newt due to glue fumes when I lined the cabin and quarter berths on "Marnie". It took about 24 hours to sober up! Which is why, on my wife's insistence, I relined the cabins etc on my Centaur with screw-on panels.

It makes sense to reline when replacing the windows/window rubbers.

*Roy Sallabank (200?)*

## **8. Replacing the bulkheads**

These are structural so need doing properly. They help to support the cabin roof and also help get the loads from the mast down to the hull. A couple of alternative suggestions:

1) If they're getting shabby re-sand them or fix some suitable veneered ply each side.

2) To make them more rigid fix some half-round mahogany strips down each side. A lot of timber merchants or DIY stores sell something suitable about 1" wide and in 6ft. or 8ft. lengths. Fix them on opposite sides of the bulkhead on each side will make a big difference.

*Tony Bromley (2003)*

## **9. Water Tanks**

The original water tanks were made by Crewsaver, but the problem was that they were shaped tanks, which should really have been fitted with a vent rather than allowed to collapse as they emptied. They were also single skinned, and although fine for 2 or 3 years, soon started to pick up nasty tastes and leak thereafter. I replaced mine after about 5 years with a custom made double skinned triangular pillow tank from Air Cushion equipment (now Stowaway). It was relatively expensive, it holds only about half as much as the original but is still in use with no problems after a further 17 years. It is sized to fit the available space with a right angled fitting near the apex to take the filler pipe and another smaller one near the "base" to take the outlet hose, both being on the top surface. I also fitted a small triangular plywood panel underneath it to make a flatter platform for it to sit on.

I always take fresh water on board as drinking water (although there never has been any problem with the water in the tank) and keep a couple of gallons in a container as well.

*Vic Simmonds (2001)*

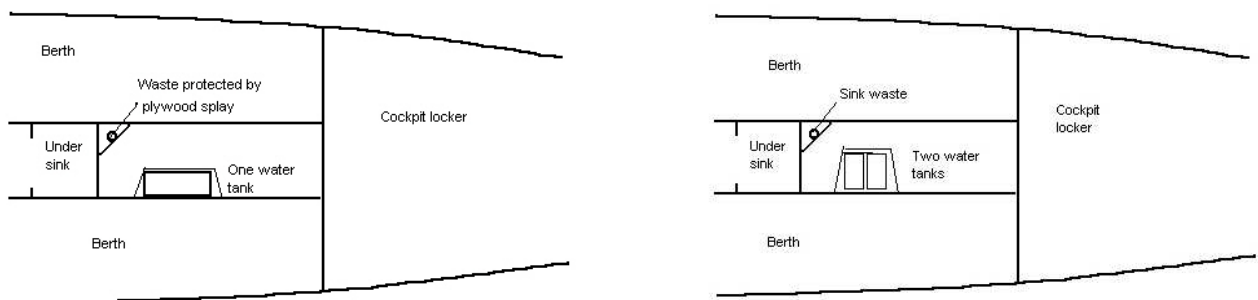
## 10. Sea Wych Water Tanks

Another variation on water carrying. I use rigid plastic containers, the sort that come in numerous shapes and sizes at camping shops etc. They are stowed under the forward part of the cockpit floor, the space that you get to through the cupboard under the sink. The size you can use depends on the containers' dimensions and how you can get them into that position, either via the berths or through the cupboard. If they go via the cupboard the position of the sink waste pipe can also restrict access. I use two 5 gallon containers which means I can have one still in use while taking the other ashore for filling. I find that on a cruise of more than a day or two I really need to have the ten gallon capacity as re-filling points are sometimes not that frequent.

I hold the containers in position by a strap fixed to the sides of the berths which is long enough to hold two containers and is arranged so that it can be shortened to hold just one. I am sending, as an attachment, a sketch showing this which I hope will make it more clear. I also fixed a piece of wood to protect the sink waste skin fitting in case the containers ever came adrift. Full of water they're quite heavy and might break the plastic fitting that was supplied as standard with the original Seawych kit, although I've since replaced it with a proper phosphor-bronze sea-cock.

I have a galley pump on the sink fitted with a tube which goes through a hole in the water container cap so that I can pump the water into the sink. I just drilled one cap as a tight fit for the tube and just change that cap from one container to the other when I start to use the second container. That leaves the out-of-use container with a secure cap. I find it is much easier in a seaway to pump the water when I want to fill the kettle than trying to pour it out of a container.

That system has served me well over the past 24 years. In fact I'm still using the same containers although I had to replace the pump a year or two ago.



*Tony Bromley (2000)*

### ***Toilets – and the holes sometimes caused by their removal!***

*(Ed: there are several articles in the Mods Manual on fitting toilets, and also considerable detail on the Ball-Hed loo. The smallest chemical loo I have found is the Thetford PortaPotti 335 Super compact. Dimensions are, in mm, h: 305 w: 343 d: 381. Price in early 2005 was eg £71.95 + p&p from Marinestore Chandlers)*

### **11. Loo - chemical**

I built Wychcraft and used a chemical loo which I was able to take ashore in its halves for disposal in a chemical loo disposal point or in an 'appropriate' toilet. This loo pulls out from under the companionway and can be used even when the boat is sitting on the mud, which it often was. It also allows the vee berth to remain uninterrupted for nocturnals, also providing a tank area for fresh water of about 15 gallons, which I could pump to the galley sink. By pulling the loo forward into the cabin, you can still access the area behind for storage etc.

*Rick Bowen (2002)*

### **12. Loo – ECS RM69**

The Ball-Head is obsolete, which is a pity as it was so simple and effective. I looked long and hard for an affordable alternative and found most units were too tall. In the end I installed an ECS RM69, which is a tight squeeze but works OK. The pump handle does protrude ever so slightly, so I had to cut a small aperture in the wooden panel, which supports the centre cushion. A useful tip is to use upside down ss nuts and bolts to secure the loo, fibreglassing the bolt heads in the support plinth. This way you can easily remove the loo for servicing. I also used ECS ball valves as stopcocks - which was a mistake, as the levers are mild steel and rust away quickly, and you cannot grease or service the balls which become quite hard to turn. I have replaced the large one with an all bronze stopcock which is much better, though dearer.

My log impeller sits forward of the loo so I have insufficient space to fit a storage tank. If you would like more info let me know.

*Bob Sarah (2002)*

### **13. Loo – more!**

Have you tried the Lavac sea toilet which is very simple and requires just one pump which you can fit a little away from the loo?

*(Richard Bowen)*

I did consider the Lavac sea toilet for the reasons you mention. Being able to place the pump anywhere should make service access easier. But then you lose the advantage in having all water fittings below the waterline inside the box which, hopefully, should contain any flooding. Plus they are a lot more expensive. Have you got one?

*Bob Sarah*

Yes I have had two (Lavac toilets), on different boats, and both were on or just below the waterline. If you are concerned about flooding, use a Blake's seacock on the outlet and inlet pipes and close off when not in use. On my boats, I was able to run an anti-siphon loop, but I have had no problems with either loo over 10 years (touch wood!) and they are easy to install and service. The loo does use an almost full sized seat, so I don't know if it would fit the space plan wise.

I don't know how much they are to buy - £150? - (*Ed: found the Popular at £189 on the Internet*) but if I were to have a Wych again, I would not have a sea toilet at all, but use a chemical loo which, if maintained correctly, does not smell and can be used at all states of the tide, even when aground, and they cost much less to buy and install. I modified my loo space into a large water tank piped to the

galley, which gave me three days supply and good ballast adjustment for beating!! If you put the loo under the companionway to slide out (see Mods Manual) on filing cabinet sliders, any blue chemical smell is kept in the locker and can be vented.

*Richard Bowen (2002)*

#### **14. Hole Filling (1)**

I've found some items that refer to the loo hole and they're (*Ed: not*) attached. The point that I can remember making was to bevel the hole so that it is bigger on the outside than inside to prevent water pressure pushing the repair into the boat. I would then glass over the whole area of the inside of the loo space about 5mm. thick to make it all rigid. If you look in a book on fibreglass hull repair (try the local library), it will probably tell you the best way to do most of this, including cleaning and preparing the existing surrounding area to ensure good adhesion. I would use something like Formica to support the gel-coat from the outside until it sets, it will take up the slight curve and produce a smooth finish. Even if it's not too smooth it will eventually be covered by antifouling so is less important.

*Tony Bromley (2002)*

#### **15. Hole Filling (2)**

I imagine your prime concern is how to close the holes. I closed one when I removed a defective and badly located speed log sensor, which was centred under the forward end of the cockpit floor and therefore exposed to the wash from the keels when there was any leeway, giving me the false idea that I was punching the tide, which was not what my transits told me (pre GPS!).

I used a number (21!) of discs of chopped strand fibreglass mat (the coarse one), which I cut out to just exceed the diameter of the hole. Putting in the first few was the most difficult. I wrapped an object of suitable diameter in polythene and pressed it into the upper (inboard) side of the hole such that 3 or 4 mm of hole could still be seen from below. After putting a weight on top of the object I could, from under the boat, put in about 4 layers of matting discs with the appropriate resin. Make the first few layers good and wet so they are sure to be attached to the hull. As soon as this set, I was able to remove the object and the polythene bag used to cover it. It was immediately possible to complete the installation on the inside and then on the outside.

After 21 layers the hole was full. Some shaping was required using a surform scraper (but some prefer an angle grinder). Finally, a coat or two of the finer fibreglass was used on the outside, and with a coat of gelcoat, paint and antifouling, the job was done.

It's still OK 5 years later

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#### **16. Hole Filling (3)**

To prepare the hole for filling I cleaned off all surrounding paint using various scrapers and files - and a few expletives! Then I chamfered the hole at 25 degrees from above and from below, say a 4.5mm wide, 2mm deep chamfer at each end of the hole, leaving about 2 mm straight. This gave me a perimeter surface to stick the fibreglass to at each end.

You may need some heat (a paint stripper) at this time of year to get the curing to start but be careful because it's easy to build up too much heat when building a 6 mm layer. I took my time so I could



convince myself that the job was strong and this gave me the chance to shape the surface as I went along - you get lots of detached strands sticking to everything. On thinking about it, I should have stuck a mask with a hole in it on each side to work through, but it's down to you to find out what size of hole you need. There are lots of sharp pieces of fibreglass, which must be removed for safety afterwards. More filing, and grinding of teeth.

Good luck! Oh, I did remove the boat from the water at the start!!!

*Peter Harbour (2000)*

### ***17. Hole Filling (4)***

I had to deal with a similar below the waterline hole on my boat. I chamfered the inside and outside edges of the hole so that the filler would be keyed into the hole. I taped a piece of cellophane (I think) over the outside of the hole and filled it from the inside with epoxy mixed with micro fibres to thicken it. Don't try to fill it in one go, because the resin mix heats as it cures and could result in air bubbles. Do it in two or three bites.

Then, having thoroughly cleaned and roughened the interior surface round the filled hole, two or three layers of fibreglass were applied on the inside for added strength. When you have removed the outside masking piece, you may need to use some epoxy mixture to fair the surface.

*Barri Hopkins (2002)*

### ***18. Hole Filling (5)***

I have replaced quite a few skin fittings on my boats over the last few years, and how you do it depends on whether the hole is going to be visible above the waterline or hidden by antifouling for ever! Essential to prepare the inside of the lay-up with a sander or angle grinder to provide a key for the new lay-up.

To provide a quick and durable repair, I used epoxy and glass, fixing a small sheet of Formica on the outside of the hull propped from below and then applied Interfill 400 to fill the hole flush with the inside of the hull thickness. Three or four lay-ups of West Epoxy and glass followed, leaving as laid up. This seems to have worked well, even for fairly major holes and repairs. Once set, you can remove the Formica (which you can smear with Vaseline or wax to prevent 'sticktion'), and the outside will need little further fairing with Interfill.

*Rick Bowen(200?)*

### ***19. Avoiding a Headache***

There is an easy way to avoid headaches on a Sea Wych - without having to resort to the ultimate solution and become tee-total! Perhaps I am accident-prone, but many is the time I have painfully cracked my head, when emerging from below, on the 1/2" flange which is turned down from the roof of the cabin around the hatch aperture. A piece of 22mm foam pipe insulation clips neatly over the decorative trim and has since saved my (balding) head on several occasions.

*Barn Hopkins (1998)*