



AMATEUR BOAT BUILDERS' ASSOCIATION

Nov / Dec '07



A 70% Duck Punt by Jay Niven on his workshop wall

THE ABBA ANNUAL GENERAL MEETING

This event preceded the Technical Meeting on 26th Sept and was very well attended, with about 22 people present. Of these, about 15 were able to pay their new membership fees on the night, which was also excellent, but don't forget, these fees are now due.

Most of the officers' roles had already been established in advance but we decided to add an extra position, that of Vice-President, at almost the last minute and that had to be filled from the floor. Fortunately, Chris Davis, an

ex-treasurer, had decided to re-join and he took the position. Many thanks, Chris. This will mean that Bob Walsh will have a back up during Ruth's protracted illness and recovery.

So the roles now look like this:

President	Bob Walsh
Vice-President	Chris Davis
Sec/Treasurer	Rosemary Nayler
Editor	Mike Beilby
Editorial Asst	Jay Niven
Librarian	Mike Rogers

MEMBERSHIP FEES for '07 – '08 are now due! They are unchanged at \$20 with electronic newsletter, \$30 for hard copy. Please pay them at the meeting of 28th Nov if you haven't already done so. If you can't be at that meeting please pay by mail, before that date, to the Treasurer, Rosemary Nayler, 19 Crufts Wy, CANNING VALE, 6155. She and the editor can then set up an up to date mailing list of members.

THE ABBA TECHNICAL MEETING

STEEL, THE TOUGHEST OF THEM ALL

A new (ish) member, Ed Essers, addressed us on this topic, one that hasn't had a lot of airing with us so far. Although a new member to us, Ed has had a lifetime of cruising experience, including international waters, and knows what he's talking about. And the boats Ed has built have been nominally difficult, round bilge types, most notably a Herreshoff 36. He's currently planning to build another.

Ed's chief argument for steel cruising boats is toughness, allied with economy. In one accident he was blown 50m over a reef into a lagoon, the boat suffering only scratched paint and a damaged rudder (it was a timber rudder). And I believe that repairs in remote parts of the world are much more easily effected in steel than in timber or aluminium. Ed's also been rolled upside-down three times in the Southern Ocean, coming up OK each time although the deck-mounted, timber dinghy didn't survive on one occasion.

Ed admits the material is heavy, especially in full sheets; too heavy to drag about manually, but he gets there using hydraulic jacks and come-along winches, and there's no problem temporarily welding loops or eyes to plate in strategic places to hook onto. The heat of welding can easily introduce distortion into steel, however, and so the smallest of tack welds have to be used initially when setting everything up.

As with all materials, lofting full size comes first and can take a long time but since it provides accurate patterns for frames, stems, etc, etc, it's essential. The steel itself should be old fashioned mild with a carbon content of less than 0.2%, preferably pre-blasted and primed. For cutting it Ed has just used oxy-acetylene in the past but he's thinking about oxy-propane for the next one.

The frames are mostly edge-bent out of 50mm X 4mm strips, rather than cut to curves and Ed pointed out that hydraulic pipe benders are quite cheaply available from car parts shops these days and do the job well. Cabin-top beams, deck beams and other parts can also be bent up at this stage and the bottom of the keel cut out, all from the loft plan. With steel, frames are pretty numerous; I gathered they'd be about 16" apart on a H36.

A square, level building jig for inverted construction comes next, legged high enough to make crawling inside not too difficult. The frames are then mounted on the jig. Sounds easy, doesn't it? Ed didn't say anything much about this stage but it's critical and assumes accurately marked waterlines and centrelines on each frame before lining all these up. They should be braced so that the frames are mounted fairly rigidly. Stem, rudder post and transom can all be mounted at this stage. Horizontal stringers, spaced about 30cm apart are now bent up and let into the frames, tack welding in place with the least intrusive welds possible, to avoid distorting the frames. The fin keel sides can be cut and welded in place at this stage, too.

Now the magic begins – plating a compound-curved hull without rolling each sheet. Ed's solution, gleaned from another steel boat builder, is to diagonally plank it using steel planks about 0.5m wide. The planks are placed from the bow and the stern, and port and starboard, simultaneously, to equalize stresses where ever possible. The planks start roughly parallel to the bow at the bow, and to the stern at the stern, meeting as a "V" in the midships. Many steel sheets come in 1m wide so they can be cut up the middle to create planks. The milled straight edge goes down as the leading edge on the hull and the rough-cut edge of the next plank is shaped to meet it. This shaping is known as spiling and is best done via the medium of MDF templates. Basically the MDF template is laid

close to the final position of the next plank and the necessary curve traced from the previous plank onto it using a compass. This curve is then translated onto the new plank for cutting. Each plate (plank) is first tacked to the keel sides and then pulled in to the hull shape using plate pullers tacked to the plate appropriately. The plates can be tack welded to the horizontal stringers, minimally, but not to the frames if at all possible.

When all the plates (planks) are on the hull, starting from the midships on both sides, and working towards the ends, tack the plates together using 6mm tacks about 50mm apart, making sure the plate edges are level with each other. Now the serious welding starts using a “backstep” technique. Again, starting from the midships, inside, and working towards the ends, welds about 150mm long are applied, in the middle at first, then above and below, working up and down to equalize distortion. With the inside all welded, move outside and remove all tack welds with an angle grinder. Now repeat the inside backstep technique on the outside. Is that enough welding for you? It ought to be.

A decent angle grinder, about 9”, is a good investment according to Ed. Use it to grind the external welds down to flush with the plates and finish off with sanding discs. Then it’s time to mark in the gunwale edge with a fair curve and cut off any excess before

welding on a tubular rubbing strip. Now it’s time to turn the hull over. Pipes welded onto bow and stern act as pivots on frames but make sure you’ve got clearance between workshop floor and roof for the exercise. Later you can weld on the keel bottom using the backstep process.

The deck and cabin can now go on, using the largest plates possible. This minimises welding and hence distortion risks. These plates, again, should only be tacked to longitudinal stringers. The topsides are then welded up as was the hull plating, using backstep technique.

Holes are now cut for portholes, hatches and so on, followed by the welding on of all deck hardware, internal fittings, mast steps, etc. Finally you can sand blast and paint the boat. The builder has done an awful lot of welding, (perhaps a lot of awful welding) but he’s saved a bomb on timber fastenings and epoxy and created the toughest medium to large sized boat possible.

What about electrolysis you ask. Well, that wasn’t part of Ed’s brief, but it can easily be licked, as explained in several articles in recent issues of Australian Amateur Boat Builder. Many thanks for a fascinating talk, Ed. I thought you’d bitten off more than could be chewed but you came through with flying colours and we are all the wiser.

HOBBY? or OBSESSION?

We had a very successful Toolbox Visit to Jay Niven’s Lesmurdie home on Saturday, 13th October. Successful in two ways – firstly, a good roll-up with at least sixteen members, and secondly, a great opportunity to view not one but four boats in a brilliant workshop. Originally the workshop, under its previous owner, was the storage and display area for a collection of Rolls-Royces. Now, under the stewardship of Jay and his wife, Pippa, the area has been divided across the middle. It gives Pippa a painting studio, complete with en-suite and small kitchen, at

one end, while Jay gets a very complete workshop, with plenty of electric power tools at the other. I imagine they spend more time in this building than they do in the main house. Jay’s workshop side of the dividing wall supports an extensive collection of model yachts and a large square-rigged sailing ship, while the other side displays many of Pippa’s paintings.

A special guest on the day was Rod Fearn of Armadale, who recently donated about 20 years of “Wooden Boat” magazines to the

ABBA library, as his eyesight is failing and he can no longer use them. Many thanks, Rod.

Pride of place was taken by Jay's present, unfinished project. This is a Wooden Boats Magazine "Rascal 15", a smallish mahogany runabout for 65hp outboard power, 14'10" long. Jay is not actually building it in mahogany, but that best describes the type of between the wars, American speedboat. It's being built almost completely in local pine, both ply and solid.



When we saw it the hull was complete and partially decked, mounted between rolling pins fore and aft so that we could roll it over at will, (and we did). The fore-deck and cover board was all down with suitably large caulking gaps left between deck planks. Jay is still scratching his head as to the best way to caulk these seams with Sikaflex. He's a bit appalled at the thought of masking all the seams so that Sikaflex can't discolour the adjacent timber but I think it's his only option. Just buy shares in 3M and get on with it, Jay. I hope he seals the inside faces of the seams before caulking, too. Come to think of it, varnishing the whole deck with two or three coats before caulking will make removal of surplus Sikaflex a lot easier anyway.

The single cockpit, the aft deck and the outboard well all await completion, although the floorboards are in already. To withstand 65hp the transom is laminated from two layers of 1" ply and seemed nice and solid to me. It had been cut too low for even a short-leg motor and so some of this area will be filled in again. The external hull still requires some more filling, fibreglass sheathing and sanding but it's getting awfully close.



Also in the main workshop, as a wall decoration, was a 7/10 full size duck punt, (original was 10' long), whipped up in a fortnight by Jay in a moment of boredom. This is basically a wide, flat, partially decked canoe, popular in North America for duck shooting in swamps, etc. Jay had it displayed over his side desk. (see heading photo)



Out in a carport was Jay's first own-build, a Goodenough 15 - yes, that's the real design name. It's an open, centre-console fishing boat sporting an 18hp Mercury on the transom. This is a single chine stitch and glue exercise, finished all white, and clearly a great boat for getting sunburnt in. As inspected, it only sported two seats, one for the skipper and one ahead of the console. I felt it could have side seats built into the aft area as well, as it was pretty spacious.

Parked in a side driveway was the one boat Jay couldn't have built, an RL24 trailer-sailer, probably dating to about the '70s. At 24' long these were a fair bit of boat to tow on the road, but quite popular in their day, with class associations and all. I'm afraid I don't know how they're going these days, however. Jay admits to not setting the sails too often but has motored it with an outboard several times in the last couple of years.



To cap off the visit Pippa had spoiled us with a magnificent afternoon tea including rich fruitcake, strawberry flan and Pavlova. This was consumed with great gusto in her studio, surrounded by her paintings. I, for one, was very relieved that we had a good turnout to do the spread justice. It provided a great opportunity for just socialising. So once again, many thanks, Jay and Pippa, for a most enjoyable and educational visit.

ADMINISTRATION NOTES

ABBA COMMITTEE

President	Bob Walsh	9537 8570
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Library	Mike Rogers	9527 7313

Vice Pres.	Chris Davis	9387 2317
Editor	Mike Beilby	9397 6209
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The next **TECHNICAL MEETING** will be on Wednesday, Nov. 28, in the Committee Room of South of Perth YC at 7.45 pm. The guest speaker will be Brian Phillips, speaking primarily on his resurrection of the Wooden Boat Works following the passing of the previous principal, Graham Lahiff. As mentioned last issue, Brian is currently working at 106 Quill Wy, Henderson, but still nurses hopes of returning to the Slip St site, if the Port Authority will let him. Incidentally, I didn't mention his phone number last time – it's 0437 902 942 if you want to discuss courses with him. Don't forget the buffet meal served at the yacht club on Wednesday nights – best to get there about 7pm if you're interested in that.

The December **TOOLBOX VISIT** will be back to Maylands Slipway on Saturday, December 8, to view the restoration project of the yard manager himself, Arno Dawson. Arno likes to leave the site about 2pm on a Saturday so we'd better get there early, say 1pm, so Arno can get us started, so let's meet at the gate at 1pm. We can stop on after 2, on

our own, for two purposes. Firstly, there'll be the Naylers' Dogger class yacht to see (they had a serious fire at home, earlier, which destroyed the sails, etc, but the hull at the yard is fine). And secondly, we'll have a sausage sizzle to celebrate the Xmas season, courtesy of Pete Russel, who'll provide the sausages, buns and so on. Many thanks in advance, Pete.

MEMBERSHIP FEES. As announced in the last issue, these are now due (well, overdue at this stage). 15 members renewed at the last meeting, which was good, but we'd like the rest now, please. It only costs \$20 with electronic newsletter or \$30 with hard copy. If you're going to the Nov Tech Meeting, fine, rejoin there. If you can't attend, don't wait for the Dec Toolbox, post a cheque to the Treasurer, Rosemary Nayler at 19 Crufts Wy, Canning Vale, 6155. She and I want to make up an accurate financial membership list immediately after that. So if you haven't paid by Nov 28 this is probably the last newsletter you'll be receiving.



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