



AMATEUR BOAT BUILDERS' ASSOCIATION

February March 2017

KARRAWA - A CLASSIC HALVORSEN RESTORED



Our last Toolbox, on Saturday 4th March, was a visit to view member Rob Bingham's completed restoration project on his Halvorsen launch Karrawa. Notwithstanding the very hot day, there was a good turnout of members to this event and everyone enjoyed the inspection of the exceptionally high standard restoration work that Rob and his project partner have completed on Karrawa. It was also interesting to see the very pleasant surroundings of the fairly new Coogee Marina and enjoy the abundant seating aboard Karrawa, along with the fine hospitality that went with it. Thanks to Rob for making his time available for our visit and we wish him and family many happy hours enjoying their trips to Rottnest and other destinations aboard their beautiful boat.





The story of Karrawa has previously been recorded in the ABBA newsletter of September October 2011 and further photos of her restoration are in the Dec Jan 2015 ABBA newsletter, but it is probably best told here based on the 'story board', which Rob keeps aboard.



"Built in 1943, Karrawa began life as 08-41. She was one of 147 38' launches built by Sydney boatbuilder, Lars Halvorsen, as part of a wartime contract for the Department of Munitions. Forty three of these 08's were constructed for the RAAF. Karrawa served the nation as RAAF crash boat 08-41, a speedy coastal rescue craft and seaplane tender. She was stationed at Cook Point in Victoria, then Rathmines on Lake Macquarie and lastly at RAAF Station Richmond in NSW. Originally she had twin Chrysler Royal straight 8 petrol engines and was capable of travelling at 28 knots. She has a double diagonal oregon plank planning hull.

In May 1955, she was sold by the RAAF, beginning a second phase of her life. This time as a private launch. Later that year she was purchased by Ernie Tomlinson, well known Western Australian yachtsman and industrialist, and brought to the west by freighter. Her arrival and unloading was captured by a photographer from the Daily News. It was Tomlinson, after much discussion with Malcolm Uren, editor of the West Australian, who gave her the name Karrawa, reputed to be a Nyoongar word meaning 'This is it!'

Tomlinson added the present superstructure to Karrawa and had her fitted out by Len Back at North Fremantle. The forward cabin, with its two bunks and head, is original, but the wardrobe and drawers were added as was the seating in the new wheelhouse. She was kept in the middle boatshed below RFBYC in Freshwater Bay until the early 1960's. For many years Karrawa was the fastest private boat on the river, holding the speed record between Fremantle and Rottnest until 1974 when her petrol engines were replaced by two 115hp Perkins diesels.



Following Tomlinson, she has had seven owners in Western Australia; Bob Angell (1961-70), John Stewart (1970-83), John Kruiskamp and Gordon Traill (1983), DD Brown (1984), Barry Newton (1984-1988), Ralph Brockman and Colin Wright (1988-1993) and the owners immediately prior to Rob and his partner, Ross and Jenny Gregory, who bought her back to RFBYC. They added the two upper bunks in the forward cabin, a hot water system and shower. A transom door has also been fitted. In her many years at the RFBYC, Karrawa was maintained by Keith Clifford, Alf Robinet and Kerry Davies."



Rob and his project partner, Ashley Wilson, purchased Karrawa from the Gregory's in 2009 and in February 2010 she was taken to the hardstand at Maylands Amateur Boatbuilding yard. Since that time, Rob and Ashley have carried out major repair and refurbishment including replacement of the forward 2/3 of the hull above the chine on the starboard side, assorted frames, replacement of the transom and general repairs to rotten timber prior to a full repaint throughout.



Karrawa was relaunched at Maylands around two years ago following rewiring and completion of all the engineering works. Rob towed her down river with his ski boat Bruce and fitted the twin Perkins diesel engines back in at RFBYC. As would be expected on such a major restoration, a few 'teething' problems have arisen and been fixed during the 'run in' period but when last seen at Rottneest, Rob and Ashley were getting much pleasure out of this quite historic vessel – now in pristine condition. Well done on a great job gentlemen.





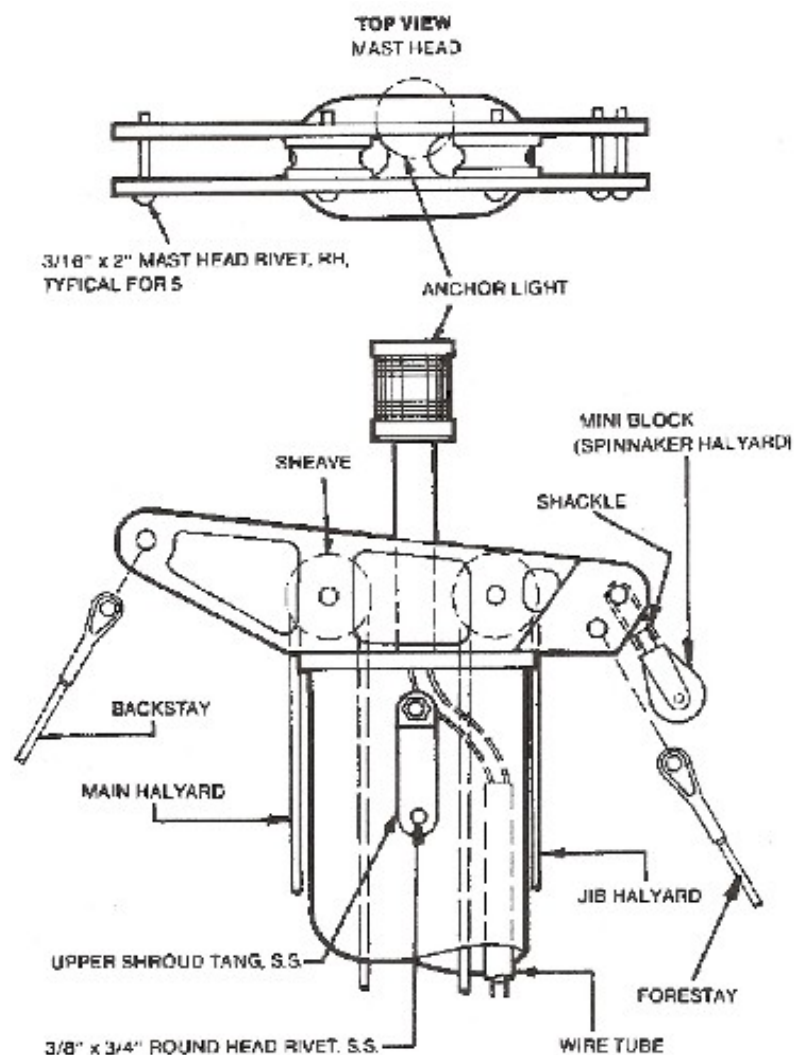
Hidden gems aboard Karrawa.

Brian Orr's - Saga of Empathy - The Restoration of a Spirit 28

The February Technical Meeting talk was presented by Brian Orr, a member of The South of Perth Yacht Club.

It all started with trouble with sheaves and ended with repainting the whole boat.

The whole show started in 2003 towards the end of sailing season 2003, having trouble with the two top sheaves at the top of the mast, having trouble getting the sails up and getting them down as well, and we decided it was the last race and really during the winter I had to do something about it.



I wasn't going to go up the mast and take the sheaves out. That seemed a bit like chopping off the branch with a Stanley knife, so I decided that was not the way to do it, so the better way was to lower the mast

We got the mast down with the boat in the pen but even then I could not reach it so really there was no option but to take the mast off or pay a rigger to do the job. Being the tight person that I am, that was out of the question, so the mast came off and I walked it around to the area where the boats are stored, and had a look at the problem.

At that time someone said to me that while the mast was off the boat you really ought to respray it, and I thought that sounds like a good idea. So it went from fixing sheaves to respraying the mast, boom and a few other bits. I decided that I would have a go at respraying. I did pretty well with the primer, but when it came to the top coat, I realised that there was a skill there that I just didn't have. So what we ended up with was something that looked like white orange peel.

At about that time I went to the Caribbean. When I came back I thought - "well that was a pretty lousy spray painting job. I'm sure that if I really put my mind to it, I could do a bit better." And foolishly I came up with the idea while spray painting "why don't you do the whole boat?"



In the Caribbean (this is not a Sprit 28!)

So we took the boat out of the water. When I took a close look at the boat, (which is about 30 years old) I found all sorts of problems. Not the least of these was some osmosis, which I knew about but had quietly ignored because it was under the water and I could not see it. There was also the deck where the non skid treatment was starting to degrade and the areas of fibreglass around the stanchion bases were starting to delaminate due to movement when people leaned on them in heavy seas. As people came out of the cockpit in stormy weather they grabbed on to those posts and leaned on to them and there isn't enough strength in them to handle the sort of leverage they were getting.



I took some advice and was told to cut out all the rotten fibreglass and start again. So I got an angle grinder and with a great deal of terror cut out the two stanchion bases that were badly degraded to a point that you could put your fist through the deck. Over the winter we rebuilt those areas with fibreglass matting and glass resin, built them up and shaped them to match the original.

And then I was told all the degraded anti slip had to come off. If I tried to paint on top of it all, it would continue to degrade underneath and end up rubbish, so I got the grinder out again and ground the lot off. It's pretty terrifying working with an angle grinder on a boat, but we cut it all off back to smooth hard fibreglass. Then we laid fibreglass matting over the top of the anti slip areas and stuck it down with resin.

We now had a hard surface, but we had to transform this into an attractive surface. So we played around for a bit and actually found a really good resin recipe (don't ask me what it is because we have now lost it, it was a long time ago). If we mixed resin and talc in a certain ratio and applied this to the top of the fibreglass matting; then waited an amount of time and stippled it with a brush, it came up and left what was very similar to the pattern that we originally ground off - but it was a solid surface (editors note; add baby powder to the resin until it is as thick as needed). We did this over the entire deck and it all looked pretty good.

We created a new surface to what was on the original Spirit, and it was an excellent non slip finish. In some areas we got it better than others. It was all a matter of getting the recipe and the timing just right, so when you stippled it you got it to a point where the stipples just stood. And the triangular pieces around the stanchion bases were rebuilt. Surprisingly it wasn't all that hard to do, we just had to keep going until we got the shape we liked and then round off the bits we didn't want. We eventually got something that was very close to the original.

At that point I sprayed a primer over the deck. This went really well and I absolutely thought that I had this thing made. I wondered why these spray painter guys got paid as much as they did, but I was about to find out.

I mixed the gloss and took all the advice I could. When I sprayed the gloss on, it had the same orange peel finish that was on the mast in the first place. I was a bit dispirited to say the least. At that point I got another invitation to go to the Caribbean. I came back with a bit more enthusiasm and decided that it had to be ground off again and I had to master this art of spray painting a two pack top coat gloss.

But at that point there was a lot of discussion within the club about allowing paint spraying, and I was told that there was to be no spraying at all anywhere on the club premises. That put me off and I waited some time while I wondered what I was going to do. Somebody then came up with the idea of taking the boat to Maylands. The original charter that set Maylands up as an amateur boat building yard allowed one to do all sorts of things there.

So we put the boat on a low loader and took it along Canning Highway to Maylands. We cut out all the osmosis and left the boat in the sun for at least a year or maybe two to weather until it was dry and hard. I slowly built up each osmosis area with fibreglass matting and resin. With Nicks help we cut different sized pieces of matting and started off with big pieces that covered the whole hole. Then progressively we went smaller and smaller as we filled up the hole until the repair was about a millimetre below the overall surface of the hull. We filled it with a mixture of resin and talc to give it some bulk and sanded the whole thing off until it was smooth.



We then masked it all one faithful Saturday morning, a beautiful day in late summer, no wind, warm day, ideal conditions for spray painting. We spent all morning masking. We came back after lunch and set the spray gear up and I started spraying from the bow. When I got to mid ships, I stood up to stretch my back a bit as it was getting a bit sore and looked around at my job. The entire boat was covered in little chips of paint and dust that had slowly drifted over the boat because the guy with the timber boat near me had decided that it was a good morning to sand his boat back. There was not much wind but what little there was had blown from his boat to my boat. All that I could do was wash the gear and have a little chat to him about maybe having a look before you start doing things. But what can you do? The damage was done and he didn't mean to be malicious. It absolutely ruined my job, and it ruined my day!



I came down the next day and got the grinder out again and I ground the lot off. I'd ground off the first go on the deck, and now the second go on the deck. I was not feeling very happy. I ground off as much as I could, put the covers back on it and got another invitation back to the Caribbean for trip number 3. It just seemed a good idea just to leave it for a while. It was very dispiriting.

At that point, the project got left for a quite long time. When I came back to it I thought “I have got to get this right; I have put so much work in to this I have got to be able to do this job”.

I was advised by the Maylands boat yard that it wasn't all that difficult to spray paint as the guys who are professional spray paint tradesman not university graduates. If they can do it you can do it. I took that home idea and worked on it for a bit. With encouragement from my wife and my mate, we decided that we had better get back to this and have another go. This is not impossible.



So I cleaned it all off, re masked it, and set about of spraying it again. I started from the bow and got to the same magic place at the end of the cabin, stretched again and looked back at what I had just done because as I was spraying it looked really nice. Little by little starting from the stern it just looked like it had chicken pox all over and I had no idea what caused it. I asked around afterwards what caused it but neither the paint manufacturers nor anybody else could give me a definitive answer. I think I know now what it was. I had two different types of paint with two types of thinners and I think that I used the wrong thinner to dilute the two pack top coat so it was actually reacting with the paint. At that time I was not in much of a mood for logical argument, it was absolutely heart breaking.

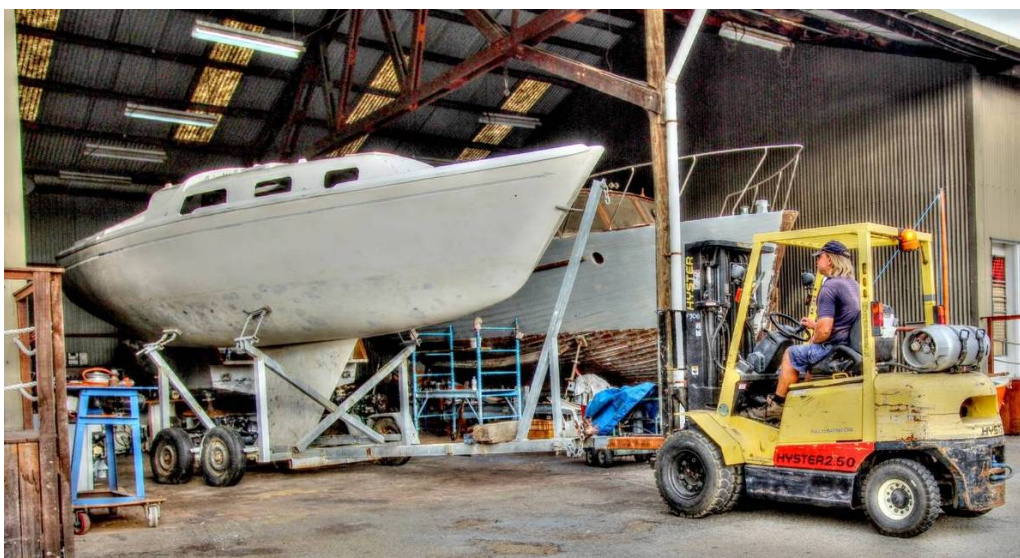


So I came back the next day, got the grinder out and ground it off because it just could not stay like that. I put the covers on and went back to the Caribbean where all my ego got put back together again. At the end of this last trip which Nick came on with me, we both said this boat has got to go back into the water.

So we went back to Maylands, took the covers off and started seriously setting about getting back into the boat. At that point, I decided that I was not going to have another go at spraying. I didn't think my ego could handle another run with bad luck, so I got someone from Maylands to spray it. He didn't do as good a job as my best one but did it in an enclosure which makes a huge difference when you have protection. Sometimes I think you just have to say "I'm not winning this problem and I have to find another way to solve it to cut my losses and get it done". It cost me \$6000 to get it sprayed. This was a cheap job as I had prices as much as \$20 000 to do the job.



Before the boat got put into the shed to be painted, Nick and Roy with a little bit of help from me, ground the whole of the inside of the cabin back to as smooth as we could get it, filled it with an auto filler and painted matt white which we were really pleased with.



Then we the boat towed to the sheds at Maylands and took out the old motor. When I started, I had no intension of changing the motor, but in the 10 years and with the covers sometimes leaking, the water got in and the motor had seized. It was repairable but if we sorted it out, whilst we would get more power out of this single cylinder 8 hp, there would always remain the risk of the main shaft breaking. These old single cylinder Yamahas have a huge flywheel and the shaft that drove it had a habit of just shearing with time.

At this point, I decided that the last thing we needed when using the boat was a motor that would not perform so we made the decision to fit a new motor. We took the old motor out and then the most dramatic thing we did with the boat, apart from the respray, was the windows. The windows were a bit like the respray - more of what not to do than to do but I got there in the end. What I wanted to do was take out my old windows that I thought in the Spirit were a bit small and make the window openings a bit bigger. I drew some pictures on the boat and decided what I wanted and cut 20mm all the way around.



I went to a marine window manufacture and asked for a piece of Perspex cut out 20mm bigger than this size to screw on from the outside. They said that I couldn't do that as these would never seal and always leak. They told me I needed to do the job properly with new windows and what's more they said I needed to use glass and not Perspex. I said "come on, this is a yacht, things hit it, it will get smashed". They told me their glass was tougher than Perspex and it would not scratch. We had a very long conversation and they were very adamant that they were right.



When I got the windows there was one small piece of information that they didn't appreciate. Yachts don't have flat surfaces - particularly Spirits 28's - and you cannot bend glass. So I went back and said "ok guys you are wrong. Take the glass out and give me Perspex". We negotiated a deal so we got Perspex but that was only the start of the problem. The window consisted of an outer frame that the Perspex bolted into and an inner frame. The idea was that on a flat surface, you put screws from the outside and then put a tube over the end of the screw and snap it off. Then you put a black tape around the inside to get rid of all the ends of the screws. The problem is of course the yacht is not flat and the screws just tear out of the fibreglass. When you put the frame on and try to screw the fibreglass and frame together, the whole lot just pops off. The only way we could do it was to put the frame in and use a long machine screw with a nut on the outside. We bolted it all together with Sikaflex, waited until the Sikaflex had gone off and then one by one removed the screws replaced them with dome headed stainless steel bolts and nuts. That's a two person, several of cups of coffee job. It took us two weeks to fit those windows. There were six windows in the boat and they each took 2 days to fit. It was a very painstaking job.

The other problem we had was the "T" shaped section of each window frame with the other half of the frame that fitted inside it. That works while it's all flat but once you bend one the other doesn't fit any more. So we had to file out the inner frame so it would take the curve and that took a long time. Having got that far, we were pretty determined to succeed and we did eventually get all the windows together.

We had Nick, the shipwright at Maylands, replace all the teak grab rails. He did a brilliant job, despite the 40 degree day. We started at 7:00 in the morning and by lunch time, when it got really hot, we'd had enough and gave it away. The boat was now starting to look pretty swish.



We painted all the non slip with grey epoxy which we rolled on, and it looked really good against the white. We also had all of the stainless steel off and very patiently polished it. This was a hell of a job but when it all went back on again it all looked brilliant. Then we started putting all of the fittings back on again.

Next we started to spray the final coat on the mast and started the work below the water line. I considered using an airless spray machine but decided that I had got the hang of the air spray and that was good enough. We rewired the mast and got a rigger to replace the sheaves. It might have been cheaper to have paid this right at the beginning instead of going through all of this, but we all have to learn somewhere!



The project is now moving towards an end and the boat is starting to look the way we wanted her to look. We had her picked up by crane at Maylands and placed on to the slipway jinker. We thought that it was all over now; we have done it, a piece of cake, all we have got to do is to put her into the water, take her to South Perth Yacht Club and go for a sail.



Now the boat came to Maylands on a low loader and the slipway jinker was designed for power boats not yachts. The Spirit has a 2 metre draft and the jinker doesn't go 2 metres into the water so I could only launch the boat on a high tide and the only high tide we could use was at 11:00 at night.

We started at 7:00 in the morning doing a barrier coat below the water line. Then we sprayed the antifouling on top of that and let the whole thing dry. We went home at 6 o'clock, had an hour's sleep, grabbed some gear and went back to the boat. Nick and I sat on the boat and we were told there was a 50/50 chance that it would float. We were a little worried about the other 50. At 11 o'clock at night she rolled down the rails into the water and right at the end she did float, but we still hadn't finished. She had a brand new motor and I was saying to Bruce, the guy that installed

the motor, 'will it go?'. All along we were ribbing Bruce about the fact that it would never. He would not test the motor onshore as there was no cooling water. He said he would guarantee it would go. So at 11 o'clock at night all we had to do was move it off the jinker and around to the jetty where we could tie it up.



We started the motor and let it run for a few moments to warm up. I remember when we had the boat in the Caribbean out on the water they used to say to me "always leave it on the jinker for about 5 minutes until you are absolutely sure there are no leaks, there is nothing you have missed, nothing you have left on the dock, nothing you didn't put back". So I got the torch out and looked around the boat and at the motor. The motor was ticking over but there was water squirting all over the place and in the dark, when you are tired, it really looked dramatic. We turned the motor off. I had no idea what it was so we waited 5 minutes to make sure it wasn't water coming into the boat. I guessed it was how the motor and the exhaust was connected up but at 11 o'clock at night I was in no condition to fix it.

So we took the ropes and tied all the pieces together and my son, who had come to join us by then, found a little paddle boat on the beach. He paddled around to the boat and took the line all the way around to where the boat had to go. We pushed it off the jinker as the jinker was booked for the next day so we had to get off it.



The problem with the motor was simple, the clamps that were used to hold the exhaust were too big so they were tight but were not biting on the hose. All we had to do was to pull them off and get the next size down. The next day it was fine and there we had it - a finished job.

You would think by now we wouldn't have any more disasters but on the way back, and going at full chat, we missed out one of the navigation marks, took a short cut and ran aground. Nothing too seriously and we got back to the yacht club and worked out how the rigging went together. It took us most of the day to get the mast up but by the end of the day we had it all sorted.

I have got to say that without the help of the two guys who worked with me, and the support of my wife, I would never have got there. One of the really good things about this exercise is the bonding you get with mates when you tackle something. You know it is way beyond your level of expertise, but you keep working at it until you make it work. I reckon the three of us, working together, did a fantastic job.



There were still bits and pieces of things to finish off but we wanted to actually do some sailing. We rubbed down and varnished all of the teak and the under-side of the deck was painted nicely. We totally rewired all of the electrics with new and rebuilt the old switch board which was daggy and awful. We found a use for some of the teak that was left over from making the gunwale strips. It was in slabs so we got Nick to slice it up. I made the frame to put all of the instruments in and he glued and laminated 10mm of this teak on the face of it and it looks really nice now.



My wife had always complained that there was nowhere to wash her hair (editor; plenty of river). Near the heads, there was an old cupboard which we could never find a use for. We used to store old life jackets in it so we took the top off it, put a nice big bowel in it and it will be connected up to the water when I finish it. The water is now electric and should keep her very happy. (you have got to keep the women happy).



We changed the stairs coming down to the cockpit. The next job is to laminate all of the working surfaces and to revarnish all of the old bits of timber, but some of it just has to wait.



Now we come to the philosophy bit. You may be wondering about those charts of the things that most commonly kill people. However good your eye sight is, I would defy anyone to find renovating or building boats in that chart. It never killed anybody. It might be hard work, it might take a long time, but you aren't going to die of it. You can die of a lot of other things, but you won't die of renovating boats, so stick at it.



With thanks to Nick and Roy

And if you missed The Black List

**“There are good ships and there are wood ships, and ships that sail the sea.
The best ships are friendships and may they always be.”**

ABBA thanks Brian for this most interesting presentation on his restoration journey which I am sure many of us can relate to.

Vale Mike Rogers

It is with a great deal of sadness that we record in this newsletter, the passing in mid February, of long time ABBA member and valued supporter of ABBA and the amateur boat building cause, Mike Rogers. Mike and Trish were holidaying in Tasmania at the time of Mike’s passing, following their attendance at the Australian Wooden Boat Festival.

Mike had a lifetime of involvement with amateur boatbuilding and in recent times is understood to have had five projects on the go at his home. Mike was an enthusiastic amateur boat builder who was always keen to share his knowledge with others and will be sadly missed by us all.

We extend our deepest sympathy to Trish, Mike’s brother Kier (also a long time ABBA member) and to their extended family.

ADMINISTRATION NOTES

ABBA COMMITTEE

President	Ken Potts	0421 178 991
Sec/Treasurer	Bruce Cadee	9259 0844
Newsletter Editor	Chris Davis	9387 5042
Event Coordinator	Damien Bourke	9249 9439
Library	Rosemary Nayler	9455 1470
General Committee	Rob Bingham	9246 0202
	Ed Essers	0406 050 989
	Neil McKenzie	0424 533 063

APRIL MEETING

Our next meeting will be on Wednesday 5th April, as usual in the Heritage Room at South of Perth Yacht Club, 7.30pm for an 8pm start. This Meeting will be a presentation by Peter Worsley on the lesser known but interesting shipwrecks he has come across during his research.

Peter and his wife Jill are long time volunteers with the WA Museum Shipwrecks Collection. Together they have written three books on WA shipwrecks and they have recently finished the fourth which is in the final stages of proof-reading before publication.

Peter and Jill are also amateur boat builders. Their first yacht was a Roberts 34 which was built of C-flex. They built the mould and laid up the hull and deck, and then fitted it out including the engine. They bought the aluminium mast, sails, standing rigging etc. Their second yacht was a Westsail 33 hull and deck which they bought and fitted out including the engine. Peter designed a gaff rig for it and then built the laminated Oregon timber mast together with the boom, gaff, topmast and bowsprit.

MAY TOOLBOX VISIT

The next Toolbox will be on Saturday 6th May, as usual 2.00pm to 4.00pm. This Toolbox will be a return visit to committee member Ed Essers workshop to inspect current progress on construction of his 14m Herreshoff Mobjack design aluminium ketch. This project is steadily moving in a launching direction so come and catch up with progress. This may be the last time we see her in the shed.

Ed's address is 43 Moore Street, Wungong. Heading south out of Armadale on South Western Highway, Moore Street is on the right just over 3 kms from the Albany Highway traffic light intersection. Number 43 is the last house on the left hand side at the west end of Moore Street. Please park on the verge and Ed's shed is (a walk) down the second driveway.

ADMINISTRATION NOTES (Cont'd)

ABBA LOGO

Members are reminded that Bruce Cadee has made arrangements with Shaun Luong of Image Embroidery at 26 Tulloch Way, Canning Vale (Phone 9456 2324 Mobile 0403 250 389) for an embroidered ABBA logo. The logo can be applied to your own clothing (assuming it can be accommodated in their equipment) or to shirts, caps or hats purchased through Image Embroidery. Feel free to call in on Shaun to look at the limited range of clothing he has on site or visit the following web sites to choose your preferred style, size and colours. The weblinks below are only examples of the wide range available. Half chest measurements are included on the web sites to help ensure you select the correct size. Ladies styles are also available.

Clothing (excluding Logos)

Style 1300 – Aussie Pacific Mens Murray Polo, Navy/White/Ashe or White/Navy/Ashe - **\$20.00 + GST each**

Weblink: http://www.aussiepacific.com.au/the-murray-polo-navy-white-s?color=Navy%2FWhite%2FAshe&primary_color=Navy&secondary_color=White

Style 1304 – Aussie Pacific Mens Eureka Polo, Navy/White/Ashe or White/Navy/Ashe - **\$21.00 + GST each**

Weblink: http://www.aussiepacific.com.au/mens/polos/eureka-polo-sky-navy-s?color=Sky%2FNavy%2FAshe&primary_color=Sky&secondary_color=Navy

Hats/Caps (excluding Logos)

Style 4199 – Headwear Brushed Heavy Cotton Cap, White/Navy (many other colours available too) - **\$6.50 + GST each** **Weblink:** <http://au.headwear.com.au/productDetails.cfm?&prodID=53&prodCatID=2&pageNumber=1>

(Also refer poly/cotton legionnaires hats Styles 4057 or 4126 for maximum sun protection under website sub heading 'Hats, Visor & Beanies' <http://au.headwear.com.au/productList.cfm?&pCategoryID=7>)

Style 4199 – Headwear Brushed Heavy Cotton Cap, White/Navy (many other colours available too) - **\$6.50 + GST each (includes poly/cotton legionnaires hats for maximum sun protection under website sub heading 'Hats, Visor & Beanies')**

Weblink:

Style 4223 – Brushed Sports Twill Bucket Hat, White/Navy (many other colours available too) - **\$8.00 + GST each**

Weblink: <http://au.headwear.com.au/productList.cfm?&pCategoryID=7&page=2>

To make your annual membership even more value for money, ABBA will pay for up to 2 logos per financial year to be applied to your items of clothing. The current cost to ABBA is \$7.15 per logo. There is no intention for this to be an ABBA uniform so the choice of style and colour is totally yours. If you are seen wearing the logo while building, working on or using your boat or anywhere for that matter it might get people asking questions and wanting to join our association. You are free to deal direct with Image Embroidery but please ensure you get an itemised invoice showing a separate price for the logo and present this to Bruce Cadee for reimbursement. Bruce Cadee is happy to take orders and liaise with Image Embroidery if you so wish.