



# AMATEUR BOAT BUILDERS' ASSOCIATION

October November 2017

## CARBATEC — DON'T FORGET THE CREDIT CARD!

On Wednesday 8<sup>th</sup> November, a good number of ABBA members and friends visited the premises of Carbatec's at 168 Balcatta Rd, Balcatta. One of Carbatec's business offerings is 'Training' so they are well versed at addressing interested groups. They gave us a briefing on a range of machinery as well as the specialist and high quality hand tools that they routinely have in stock, many of which are not readily available anywhere else. Many attendees also took advantage of the 10% discount that Carbatec had offered for any purchases in store on the day.

Carbatec is a leading retailer of woodworking tools and machinery in Perth and Australia wide. This includes development of their own brand, new tools and machines. In their Mission, they state that they believe that one of the most rewarding and wonderful experiences in life is creating something with your own hands, especially with something as beautiful and unique as timber (and ABBA agrees – particularly if that is a boat or the fit-out of a boat!). Their company objective is to provide their customers with the tools, knowledge and resources to do just that.

The afternoon commenced with an introduction by Carbatec's Business Manager WA, Chris D'Rosario. Chris explained that for the past 15 years, Geoff Schupp had owned and operated Carbatec's franchise store in Balcatta, Western Australia. Geoff and his team had worked hard to develop the Balcatta store into what it is today and with Geoff's retirement, Carbatec had decided to acquire the Balcatta store and continue operating it as a company owned store. Chris was quick to add that his skills were focussed on business management and he introduced Garry Gibson as the specialist trade background (cabinet making) member of the team to brief us on Carbatec's products and services for the afternoon.



Garry began with a briefing and demonstration of a 10 inch Carbatec brand bandsaw. There is also a 14 inch version of this machine available. The 10 inch version is available at around \$480. Garry pointed out that the fitted blade had a greater number of teeth for profiling whilst a blade with a lesser number of teeth is available for ripping timber. Blades are available for between \$20 and \$30 each for this size saw.



The saw was hooked up to a Festool industrial standard vacuum cleaner. This was similar to the currently available Festool CT20 at around \$400 and well suited to this size of saw but not big enough for larger jointers or combination type woodworking machines. However, they have very high efficiency (HEPA) type filters in them which are extremely good for these size applications. A cyclonic 'Dust Deputy' attachment from Oneida Air Systems is also available for these vacuum cleaners to pre-filter out larger particles before the air flows through the vacuum's filter system.

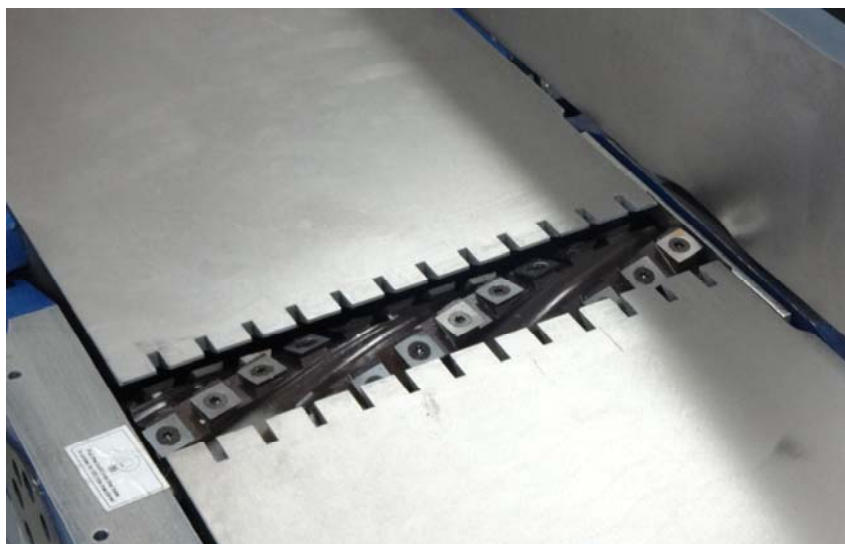


Garry demonstrated the 10 inch bandsaw with a wave cut parallel to the long edge of the timber. Prior to making the final cut, he cut a number of relief cuts at right angles to the long side of the timber in to the marked out wave. This is a safe way to go and minimises the deflection of the blade. In this regard the blade should be tightened to a maximum of 2-3 mm of deflection and will just touch the back bearing when loaded.

The next piece of machinery we looked at was a 10 inch 'over and under' jointer/thicknesser. This machine is available with normal or spiral head cutters and alloy or cast iron fence with price varying from \$1799 to \$2699.



The spiral head cutter available on this machine provides a very smooth finish to the work and also facilitates easier and cheaper replacement of the cutting edge if damage should occur. Each of the blade elements is able to be rotated or replaced individually should the need arise rather than having to sharpen or replace the whole of a normal blade.





In this section of the Showroom, we were also able to view a number of larger machines including the Jet range of bandsaws. The 20 inch model below has a 500mm x 700mm table, tilts 5 deg left and 45 deg right, has a 400mm depth of cut and plugs into a 15 amp power supply. Price is \$4,295.



As our 'journey' progressed towards the hand tools area of the Showroom, there were several thicknessers on display, a Carbatec brand and a machine made by Triton. Garry pointed out that these do not have the facility to square the edges of the work piece or to correct curves in the timber as the 'over and under' machine has. They are what they are called—for just thickening timber.



Also in this area were a number of drill presses. The Carbatec brand machine below presented as a robust, bench mounted version with table adjustment controllable via a gear rack and handle adjacent to the column. The optional adjustable jig for supporting a work piece that extended well beyond the table is available separately for fitment to any drill jig and appeared to be a very useful addition to this type of machine.



On the wall nearby was a selection of Kreg tools. Kreg manufacture a huge range of tools to assist in joining, cutting, routing, marking and measuring. These include a wide range of jigs, work tables and clamps as well as a range of DVD's.





A large area at the western end of the Showroom was devoted to Veritas, a wide range of very high quality tools including hand saws, planes and marking out tools. These are substantially hand made to a precision standard for the specialist artisan and hobbyist.



Carbatec also stock the full range of Titebond glues which have replaced the PVA glues used by hobbyists over a long period of time. Also available are the West System epoxies and the Techniglu products made by the same manufacturers for more structural applications.



Another interesting shelf item here was Silber Gleit, a non-blocking dry lubricant for wood working machines. Garry recommended this for protection against corrosion on woodworking machinery as well as being a lubricant for jointers, thicknessers and the like. He indicated that it does not transfer to the timber or affect the work piece but definitely assists its smooth travel through the machine.



Garry then showed us through the range of tool sharpening stones and accessories that are available at Carbatec. This included the Tormek range of wet stone sharpening systems which range in price from around \$600 to \$1250 for a full kit. The Tormek T8 model kit is shown below together with a square edge jig mounted on the machine.



Small bench grinders available with silicon oxide wheels for \$129. Wheels are available with 80 or 120 grit. Carbatec also carry a wide range of manual sharpening stones including varying grades of diamond whetstones and mini stone sharpeners.

The final part of our visit saw us in the north west corner of the Showroom which is dedicated to all the Triton equipment. Garry gave us a briefing on the latest saw tables and associated attachments from Triton including Triton branded routers for use on the Triton router table.



All of those present appreciated the time and effort that Carbatec and our guide Garry had provided to ensure we had a very interesting afternoon and Bruce Cadee provided a vote of thanks to our hosts, enthusiastically supported by all present. ABBA thanks Carbatec for their valued support.

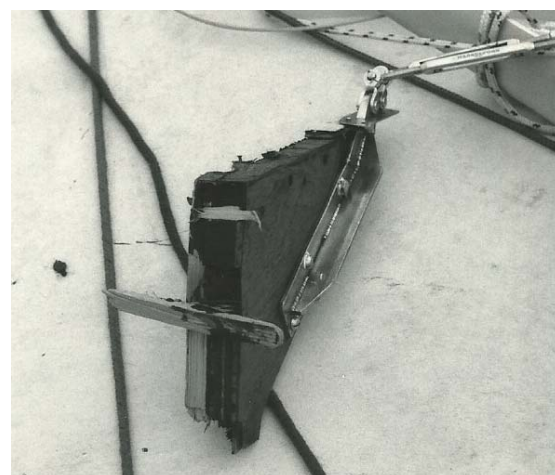
Members and friends then dispersed to source their various purchases at the 10% discount offered by Carbatec for purchases on the day. One member was caught on camera tripping over himself to grab an early bargain but was later heard negotiating an extension of time on the 10% discount contract in order to consult the home office over his intended purchase. We hope you were able to grab the router table etc Frank!





## OCTOBER AGM and SHARING OUR What Went Wrong's

**Kim Klaka** shared a story about a cold-moulded boat he designed to be built for the owner of a factory that made timber components for houses - spiral staircases, etc. The boat was built by the professional carpenters who worked in the factory. After the first sail, it was noticed that the main mast bulkhead was coming away from the keelson. A repair was effected and the boat was sailed again but damage continued to appear in other parts of the boat. During one race, a chainplate was pulled away from its fastening and ended up on deck. Kim began to wonder if he'd gotten his sums wrong in the design. But when he investigated further, he found that about a third of the glue joints he tapped with a hammer failed. As it turns out, the builders, who were skilled in fine woodworking for houses, were unfamiliar with the mixing and use of resorcinol and this resulted in a boat that was almost a total loss. It was bought by someone, basically as a wreck. The new owner re-glued and sheathed the boat which then survived for nearly another forty years.



**Roberto Barros** told the story of his friend Thomas Harrison. Thomas was from rural Queensland. He designed and built the cabin and interior of his boat Sundowner and sailed it from Queensland to Mauritius where he became friends with Jean Jacques de Marsan who was an officer in the French Foreign Legion and had fought in the Vietnam war. In Mauritius, Thomas helped Jean Jacques finish a boat that was very similar to Sundowner. Thomas then sailed from Mauritius to Durban, Capetown and eventually Rio De Janeiro where Roberto was living and building his boat to sail the Pacific. Thomas told Roberto that he wanted to be the first man to sail westward around

Cape Horn alone. Thomas and Roberto built a small boat together to sell in order to raise funds for their respective journeys and made a profit of 100%. Thomas departed Rio De Janeiro sailed towards Cape Horn. He made a few stops along the way. In Montevideo, he lost his savings to thieves and in the Falklands, he spent a year recuperating in the Stanley Hospital from an injury to his leg. When he had recovered from his injury, he set sail for Cape Horn and wasn't heard from again until a patrol ship of the Argentinian Navy found Sundowner with Thomas lashed to a floorboard and unconscious. Thomas never regained consciousness so we will never know what happened, but Roberto said that "what went wrong" may have had something to do with relying on yesterday's technology (carvel planking) rather than today's (composites, welded aluminium and steel etc).



After Roberto, **Mike Igglesden** held up a bent piece of stainless steel that was the rudder pintel of his boat from 1998. Mike marvelled at the strength of the forces that were enough to deform a 10mm diameter stainless steel rod in only a moderate breeze.

**Luis Gouvea** then described his attempt to roll over one hull from a catamaran that he was building. The undersized rope snapped and the hull was damaged. He managed to successfully repair the damage and went on to successfully complete and sail the red hulled boat in the picture on the next page.



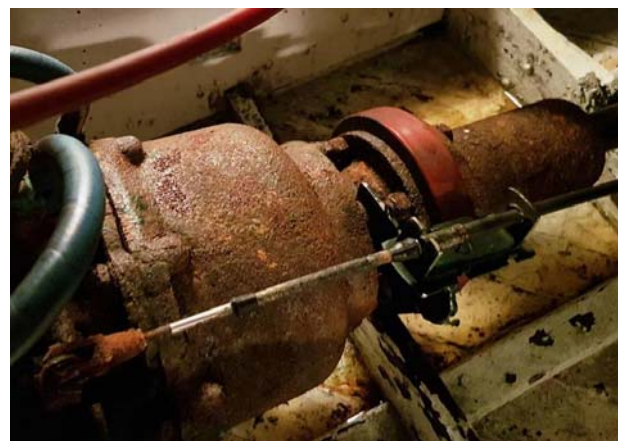




**Rob Bingham** spoke about alternative ways to repair corrosion of the inner jacket of both exhaust manifolds and the exhaust stubs. The corrosion resulted in direct exhaust leaks and accelerated corrosion of the exhaust pipes and further exhaust leaks. The result of exhaust leaks is the emission of superheated steam with a high salt concentration.



The exhaust leaks and associated superheated steam caused the engine intake flame arresters to become blocked with a salt/soot combination creating further soot, a layer of soot coated the engine room and in Rob's case, the soot also found the leaks in the back deck. The concentrated salt atmosphere corroded everything and caused catastrophic short circuit failure of the 24V – 12V converter.



The quick fix 'she'll be right' solution is muffler putty but muffler putty does not work with steam around, so the exhaust leaks will soon be back again.

The correct 'fix' is to remove both manifolds and locate the leaks in the water jackets. Rob cut away a section of each outer jacket to expose the corroded inner exhaust jacket which was then cut out and a new section welded in. The exhaust section repair was then pressure tested and the outer jacket welded back in place prior to pressure testing the water jacket side.



Patches were made to weld in place to repair leaks in exhaust pipes and the exhaust flanges machined flat to complete the job.



**Rob** also talked about finding cladosporium or some other microbial contamination in one of the fuel tanks as it sat around for the 5 years it took to rebuild the boat. The starboard tank was removed, cleaned, repaired and internally coated. This was all fine but the mistake was not doing the same for the port tank which was similarly contaminated and subsequently blocked the pre-filter pictured on the right above.



**Rob** also told the story of using epoxy resin as a varnish on timber. Initially it looked superb but due to its poor UV resistance its appearance didn't stand the test of time.

**Ken Potts** said that he was volunteering with Fremantle Sea Rescue on R100 which, with twin 330hp Volvo Pentas, is the most powerful boat in the fleet. They were called out to attend a boat that had sunk on a mooring at Rottneest. When they arrived, they saw that it was a little half-cabin dinghy and it was upside-down with just the bow breaking the water's surface. They clipped a tow line to the trailer clip on the bow and released the mooring. The skipper then positioned the boat for a good, straight run between other moored boats and once the slack in the tow line was taken up he put the throttles to the wall. That was when Ken learned that two things happen in rapid succession when enough power is applied to a little dinghy with an outboard motor and a planing hull. First, the hull flips upright, and then leaps out of the water. They towed the boat around to Thompson Bay, keeping the swamped dinghy up on a plane. Eventually the dinghy was pulled up on the beach and it was discovered that the drain plug was present but not in place. The lesson to be learned: Check your drain plug!

**Ed Essers** spoke about the sequence of operations in building a cabin side for his aluminium Mobjack ketch. The cabin side was long and narrow with five holes for ports. He cut the cabin side to the right size and shape and added the holes for the ports. He then welded in the porthole frames which were essentially L-shaped sections that would hold the perspex. This was all done on the ground before the cabin side was installed. When he then tried to install the cabin side on the boat it had changed shape so drastically that it wouldn't fit. The shrinkage from welding in the frames for the ports had distorted the whole cabin side into an unusable shape. He was able to cut the frames out and re-use them when he welded the frames into the new cabin side after the side was installed on the boat.

**Kim Klaka** spoke about a project to build a reconstruction of a 9th century Arab trading ship on a beach in Oman. The problem wasn't in the construction of the ship as much as in the transport of the ship to the actual launch. The company that had been contracted to build the railway that would move the boat into the water was not only unfamiliar with boats, they didn't know railways (this was to be the second longest railway in Oman). The first task in launching the ship was to build a cradle for the launch. The beach was excavated under the ship to make room to build the cradle. They were working to a tight schedule in order to catch the next spring tide since the first opportunity to launch after then would be another spring tide 2 and a half months later. Since Oman is a desert, all of the wood sleepers for the launching railway had to be imported. Unfortunately the project ran short of sleepers so the spacing between them was increased. This meant that the rails sagged under the weight of the ship, rendering the job of transporting it to the water nearly impossible but was eventually accomplished. Kim said the lesson to take from this episode was to figure out the launch and the transport of the boat to the launch site before starting to build the boat.





**Kim** then spoke about a 24 footer that had a quite long mast. He needed to ascend the mast to do some work. So to make the job easier, he hauled two 20kg counterweights (buckets of water) to the top of the mast in order to help him haul his own weight aloft (as the halyard was pulled down, the 40kg of ballast reduced the amount of effort required). Kim explained that this method works quite well on larger boats. As Kim hoisted himself up the mast on the halyard, his weight was added to the 40kg that was already supported by the top of the mast. As soon as a wave passed the boat and it started to rock, he realized that the boat didn't have enough righting moment to keep him reliably aloft. Fortunately, he managed to descend quickly. Kim said that the lesson to learn from that was to "do your sums" and remember that any weight that is suspended from the top of the mast acts at that height even if the load is just above the deck.



**Ed Essers** told a story about being up in Darwin on his 37 foot Herreshoff ketch. He had the boat up on the beach to clean the bottom and it was being held upright by poles. As the afternoon sea breeze came in, the waves built up enough to wash the sand out from under the poles and the boat fell over onto its side. Ed tied 100 metres of rope onto the end of his main halyard and let the main halyard all the way out. He took a 30kg anchor out as far as the extended halyard would allow and then used the halyard winch to haul the 13 tonne boat upright again.

**Bruce Cadee** told a story about renewing a coating on his boat. After taking great pains to strip the old coating, he carefully applied several coats of Everdure epoxy timber primer/preservative with the intent of finishing the job after a short trip to Brisbane. The work in Brisbane took longer than expected. When Bruce returned after a couple of months, the primer had all peeled off. Bruce said the lesson he learnt was that Everdure had no UV resistance and he should have believed what was printed on the can.





**Bruce** then talked about an incident that happened when he put his boat back in the water after hauling it out at Maylands. The boat was taking on water because the planks hadn't taken up but he said this had happened after previous haul-outs and he figured that things would sort themselves out as the planks took up on the trip back to his Bull Creek mooring. Things got worse as he passed the Perth CBD and eventually the bilge pump and the engine quit. He managed to get the boat up onto the shallows just past the narrows and was eventually towed back to his mooring. The problem, he said, was caused by using electrical connectors that were suitable for home use but not alright for use in a marine environment. The failure of the connector caused the failure of the bilge pump.



Thanks to all members who supported the theme for the night, the 3 W's - **What Went Wrong** with your amateur boat building project. It was a very successful presentation meeting.

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## ADMINISTRATION NOTES

### ABBA COMMITTEE

President	Ken Potts	0421 178 991
Sec/Treasurer	Bruce Cadee	9259 0844
Newsletter Editor	Chris Davis	9387 5042
Library	Rosemary Nayler	9455 1470
General Committee	Rob Bingham	9246 0202
	Ed Essers	0406 050 989
	Neil McKenzie	0424 533 063
	Keith Glenn	0477 172 881

**AGM**— held in conjunction with the October Tech Meeting was an uneventful procedural event except for the election of member Keith Glenn to Committee. Thank you and welcome Keith.

### DECEMBER MEETING

Our next Meeting will be on Wednesday 6th December, as usual in the Heritage Room at South of Perth Yacht Club, 7.30pm for an 8pm start. The topic for the evening is Brightwork—its preparation and finishing (or 'How to get a professional finish to your varnish work'). We are very pleased to have a very highly qualified and experienced artisan in this trade as our presenter for this meeting. Ian Weaver is a qualified Shipwright and Marine Surveyor. He grew up in a family of wooden boat enthusiasts. His Grandfather and Father built wooden boats. His father did an apprenticeship as a shipwright during World War II and all his childhood holidays were spent cruising or racing the family's various timber yachts.

Ian did the first 2 years of his shipwright apprenticeship at South of Perth Yacht Club with David Locke Marine and completed the last 2 years with Pilot Marine at Fremantle Sailing Club. Since qualifying in 1980, Ian has worked a wide variety of roles alongside people at the top end of his trade and on vessels well known in the wooden boat world. These include Warren Mews building timber commercial vessels, Ken Beashals Yacht Basin restoring 12 metre Vim and Riva speed boats, Ena steam Yacht for Nick Masterman, Foreman for Wooden Boat Restoration in Sydney working on Ena steam yacht, Riva speed boats and many classic Halvorson cruisers, timber catamaran construction in Richards Bay South Africa, Fremantle Boat Manufacturers, Proprietor and Manager of I and D Shipwrights at D'Albora Marina Nelson Bay NSW, TAFE teacher in Ship and Boat building at Hunter TAFE part time and Weaver Marine Surveyors following his qualification as a marine surveyor in 2000.

Since 2005, Ian has worked as Weaver Marine doing classic boat restoration and repairs. He has been involved in the restoration and maintenance of varnish for over 40 years. During this period, he has made it his goal to excel in this area and has produced a standardised technique of preparation and application that can be taught and passed down. Ian will deliver an interactive presentation to assist boat owners to efficiently restore or maintain the varnish systems on timber. The presentation will be divided into 3 categories being, Product, Preparation and Technique. This is a rare opportunity to hear from a master of his trade based on 40 years of 'actually doing it'! Another very special night not to be missed.

### DECEMBER (Christmas) TOOLBOX EVENT

The next Toolbox will be a variation on our Maylands sausage sizzle of the past few years. For our Christmas gathering this year on **Saturday December 16<sup>th</sup> from NOON until about 2pm**, ABBA Member Mick O'Shea has kindly offered to provide a 'working exhibit' of his two steam

## ADMINISTRATION NOTES (Cont'd)

river launches in conjunction with the usual BBQ fare, tea and coffee which Peter Russell and Michael Wade have again offered to arrange. The launches, EMMAMADALINE and JANICE LORRAINE, will be steamed up and rides will be the order of the day.

**Please note the date and the different time and venue.** The venue is **not** the Maylands Amateur Boatyard where we have often gathered in previous years and the timing is **earlier** than our normal Toolbox Visits. The venue will be the ramp/picnic area at the Maylands Foreshore Reserve in Clarkson Rd, Maylands. This is near the Maylands Police Academy. To get there, drive along Peninsular Rd which changes to Tranby Rd. At the end of Tranby Rd, turn right and drive about 500 m along Clarkson Rd. You will see the carpark entrance, a toilet block and the boat ramp on the left. ABBA members are encouraged to bring their boats for display in the carpark, or better still, on the river. Family and friends are all welcome to come along and enjoy the last ABBA get together for 2017.



### **Risk Management at ABBA Events**

ABBA Members and friends are reminded of the risks that are associated with the environment that prevails at many ABBA events, particularly at the normal Toolbox visits. Whilst ABBA has recently taken out appropriate insurance cover, the Association's primary concerns are for the wellbeing of those who attend such events. All attendees are reminded that their safety is best managed by their own attention to the risks that prevail for them at each ABBA event.



## **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](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](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.