



# AMATEUR BOAT BUILDERS' ASSOCIATION

Sept/Oct 2011

## A Fireside Chat with Steve Ward

Chris Davis

Our meeting on 27<sup>th</sup> July was dominated by a very strong front that came through Perth that evening. But as the saying goes, “when the going gets tough, the tough get going”. Eight hardy souls braved the elements and were rewarded with a most pleasant round table discussion with boat builder extraordinaire (and very humble gentleman) Steve Ward.

Steve came to the meeting with no fixed agenda or particular presentation. He got the discussion going by talking about his years of involvement with the America's Cup – mainly with the Alan Bond syndicate but he took a break between Australia I and Australia II and worked for Ted Turner for a year in the US. Throughout these years he had a very close association with Ben Lexcen.

A2 was the fourth boat that Lexcen had designed for Bondy, the other three being Apollo, Southern Cross (built by Halvorsen's in 1974) and Australia I (built by Ward's in 1977). In 1983, Bond bank rolled the design and build of Challenge 12 and Australia II, both designed by Lexcen and built by Steve Ward. The intention was that one of the boats would be for the Victorian syndicate. Bond was excited about the winged keel and chose to campaign A2. This provided the possibility of Challenge 12 being taken back for the Bond syndicate if A2's revolutionary design did not perform.

So how did Steve come to build A2? A2 was originally planned to be built in F/G – a new

material for 12 metre yachts at that time. All 12 metres were required to be built to Lloyd's approved specifications and there was a requirement that the construction of F/G twelves would not render wooden twelves obsolete. Lloyds found it difficult to quantify the scantling details to ensure equivalence of wood to F/G. Procrastination on their part led to time running out and Steve was approached to build A2 in aluminium.

Hence plans were done for aluminium and submitted to Lloyds. However, Steve noted that whilst all salient details such as scantling sizes were correct, the shape of the boat documented in the submitted plans was not the boat that was built in the factory – such were the secrecy practices within America's Cup circles at the time.

The build of A2 comprised a backbone, 8 ring frames and intermediates formed from 'T' section. The plate varied from 3/8 inch at the bottom to 3/16 inch at the gunwale which resulted in a hull weight of 4 tons to which the 16 ton keel was attached with 2 1/4 inch stainless steel bolts. Like many other aspects of the Lloyd's approved design, the plate had to be specially rolled in Australia to imperial dimensions which was the standard in Britain. However on the other side of the ledger, A2 benefited by the team's experience since the building of A1 in 1974. A special machine called a 'craft former' which could both stretch and shrink aluminium components

was also invaluable. Whereas A1 was a year in the building, A2 took 100 days from commencement of building to its first race outing.

Steve then gave us some insight into the real reasons for A2's success. At a water line length of 44 feet, A2 was the shortest 12 metre ever built, compared with the norm of 45 feet. As the 12 metre rule broadly revolves around relationship between length, displacement and sail area, this enabled greater sail area on A2. This was compensated by the real breakthrough in the keel design in that it had an 'upside down' profile. ie the width of the keel section was much smaller at the hull than it was at the extremity where the wings attached. Steve felt this design, which moved the weight much lower, was perhaps even more significant than the wings in the final performance equation.

In a broader analysis, Steve attributed the success to three clear factors – the A2 team had the most superior boat, had the best sails and had the most experienced crew, particularly under pressure. This included Warren Jones' management of affairs which was always one step ahead of the New York Yacht Club. An interesting story on the sails was that Kevlar was barely on the radar as a sail making material in 1983. Alan got wind of its potential and bought up the entire futures market. When the US sought to match the Aussies there was no raw material to be had!

As the night moved on, Steve spoke more about his own beginnings as an apprentice with his father Stewie, building traditional boats in wood. Coincidentally, one of his early memories was being on the foredeck of the last Carmen class yacht built at the Cottesloe factory on the day of the Meckering earthquake. He felt that this grounding had positioned him well for the move to aluminium which he saw as a very similar material to wood to work with for boat building – using similar tools such as band saws and even circular saws. Very early in his

career, he had become very close to Ben Lexcen (then Bob Miller). At the age of 21 years Steve lived with Ben's family and worked with him during the building of Apollo III. They later spent time in Europe campaigning several boats before they ran out of money.

More recently, Steve completed a 95 foot/125 ton Ed Dubois super yacht – a very complex project that he was pleased to undertake given that his first project was the building of the successful racer Police Car, another Dubois boat. In contrast, several years ago he procured a 1937 Gardner 5LW diesel and having restored same decided he needed a boat to go around it. He designed and built a 42 foot tug like vessel in which everything is very simply contrived. The engine forms the centerpiece for a full height space that contains all the support systems for the vessel laid out around the walls, fully on display and accessible for operation and maintenance.

Steve noted that the focus of boatbuilding is now moving away from new builds and more towards maintenance and refits. This is largely a result of the strong Australian dollar and the relatively well developed processes for importing boats from the US. Unfortunately this has seen the pool of skilled local artisans moving into other fields. Hence, Steve's current main project is major refurbishment on the power boat Manitoba, designed by Len Randall and build by Backs in the 1960's. He is currently replacing the plywood decks.

The night finished with some reminiscences and perhaps an acknowledgement that he still has a high regard for well built traditional timber boats. Steve noted that Winilya, the boat that his father first worked on as a 14 year old apprentice is still going strong at RFBYC, as is Talisman, the first launch that his father built as a fully qualified boat builder.

Thanks to Steve Ward for a most enjoyable night.

## TWO FOR THE PRICE OF ONE

Paul Thompson

The Toolbox meeting for August was hosted by Robert Bingham and his boat partner Ashley Wilson. Together they have been restoring the Halvorsen MV KARRAWA at the Maylands boatyard.

Robert had also brought along his V8 powered race boat BRUCE. The cooling system for the 350 Chevrolet was designed and built by Robert. The standard of workmanship was incredible and demonstrated Robert's skills also include MIG welding. The cooling system attracted considerable interest and discussion. So much discussion in fact, that Robert has agreed to talk more about its design and fabrication at a Technical meeting later this year.

Robert has supplied the following information on BRUCE and the MV KARRAWARA.

### *BRUCE*



The hull for Bruce was originally designed as a race boat, "Chickadee", by Andy Ellis in Sydney. A number of boats were taken from a mould of the original. This was in the days when fibreglass was being experimented with as a building material for small recreation craft. Bruce was purchased as a bare fiberglass hull by Bruce Batty and Jack Rice in 1960 and fitted out with wooden frames and a plywood deck. The power plant was a 1950 Ford side valve V8 with a direct drive (ie the propeller shaft was connected directly to the engine – no clutch). Bruce started life originally named "Kudos", and for the next

18 years was used as a ski boat on Lake Munmorah on the Central Coast of NSW.

In 1962, Bruce was purchased by Bruce Bingham, my father. Wishing to keep up with the local ski crowd, the side valve V8 was removed and replaced with a Ford big block 352 V8.

Over the years my father became less interested in water skiing and I, Robert Bruce Bingham gradually inherited ownership. In 1975 the 352 blew up and a similar 320 engine was fitted. Bruce was regularly used for towing disabled skiers and show skiers on the Hawkesbury River but lacked the power

to pull a 6 skier pyramid. To remedy this, a Ford 390 big block engine was fitted.

In 1995 Bruce had an accident towing 3 ski biscuits (2 were submerged with 1 on top) and the ski pole tore out taking half of the deck with it. Bruce languished in the backyard for 2 years.

In 1997 the family relocated from Sydney to Perth and we took Bruce with us across the Nullarbor. Many friends suggested that Bruce's days were over and he should remain in the Sydney backyard as the basis of a garden bed.

Between 1998 and 2000 Bruce was restored by replacing the frames and deck as well as all of the upholstery. The exhaust manifolds and sump for the 390 were fabricated from

stainless steel to resist the rigors of a Rottneest crossing as well as a cover being made to prevent the ingress of water into the rear area at sea.

Bruce's current power plant is a marinised Chevrolet 350 with a heat exchanger and clutch. The fully stainless steel heat exchanger was designed and manufactured by myself as was the direct drive engine water pump.

Bruce is currently used as a ski boat with the Heirisson Island Tournament Water Ski Club and commuting to Rottneest in summer.

And why the name "Bruce"? - It is my rebellion against female dominance of boat names.

## *MV KARRAWA*



Built in 1943 *Karrawa* began life as 08-41. She was one of 147 38' launches built by the Sydney boatbuilder, Lars Halvorsen, as part of a wartime contract for the Department of Munitions. Forty three of these 08s 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 Point Cook 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 planing 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 1980s. 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 115 hp 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 (1984-88), Ralph Brockman and Colin Wright (1988-93),

Ross and Jenny Gregory (1993-2009), and the present owners Robert Bingham and Ashley Wilson (2009-). Since February 2010 she has been on a hardstand at Maylands Amateur Boatbuilding yard under going repair and refurbishment. Current repairs include replacement of the forward 2/3 of the hull above the chine on the starboard side, assorted frames, replacement of the transom, general repairs to rotten timber and painting.

#### REFERENCES

08-41 Marine Craft Registration Card, 1945-55, held in Historical and Archives Records and Information Services - Air Force, Department of Defence

Australian Wartime Achievement: Over 200 Service Craft from 22 ft. to 112 ft. in Length Constructed at the Halvorsen Yard', *The Australian Power Boat and Yachting Monthly Magazine*, August 10, 1946, pp.18-19

Interview with John Stewart, 1985

Logs kept by Barry Newton and C Wright 1984-89

Interview with Ernie Tomlinson, 1993

Ross Gillett, *Australian & New Zealand Warships 1914-1945*, Sydney 1983

The meeting was well attended and the weather was terrific considering the cold blustery days beforehand. I would like to thank Peter Leggatt for again providing the afternoon tea service. Also, a huge thanks to Peter Russell for bringing along his BBQ and generously supplying the delicious sausage sizzle.

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### **THE ROSEMARY REPORT**

I don't know where she gets her energy, I really don't. Rosemary seems to be recovering really well, especially considering the seriousness of her Maylands fall earlier this year. You'll remember she broke both her pelvis and upper leg. She reckons she should be doing even better, but her physiotherapist is over the moon with her progress, so that's pleasing. Over the months she's progressed through a wheelchair, crutches, two walking sticks and is now down to one stick. She's working three and a half to four days per week at her usual job in Medicare in the city, travelling by train and gopher (lent to her by her employer). Husband Paul drives her and the gopher to Cockburn Central Station each morning; she trains in to the city and gophers to the office where she recharges the gopher batteries during the day before retracing her path to get home. Having missed two Technical Meetings she's expecting to get to the next one, incidentally.

## **ADMINISTRATION NOTES**

### **ABBA COMMITTEE**

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### **EDITORIAL**

Now don't moan out loud – you haven't had one of these for about ten years and you won't get too many more. But this is to announce my resignation as editor of the newsletter. I'd keep on doing it, despite my painful typing and the reliance on my wife, Margo, for page arrangements and so on, for which I'm forever grateful, but the fact is I'm no longer well enough to attend meetings and hence do the reports, (and I've done it for ages, anyway). So I'm bowing out with this issue but fortunately Paul is willing to take it on, at least in the short term – I'll bet his computer skills will knock mine into a cocked hat, anyway. So farewell, all. You may see me at some meetings if my breathing improves with summer; time alone will tell.

### **BOOK DONATION**

Chris Davis has reported that Barry Forbes has donated a box of boating books to the ABBA Library. Barry is a ABBA Life Member. We welcome and appreciate his generous donation. The Library is held by Mike Rogers and has a widespread collection of books and magazines that can be borrowed by ABBA members. Mike's contact is [mprogers@tadaust.org.au](mailto:mprogers@tadaust.org.au)

### **ANNUAL GENERAL MEETING**

As advertised in the last newsletter, the AGM will precede the September Technical Meeting at SofPYC, starting at 8pm. It looks as if all vacancies have been filled, so it's safe to come along!

### **MEMBERSHIP FEES**

Another year has passed and membership fees are due at the forthcoming September Technical Meeting. The good news is that fees have not increased and at \$20 per year must be the lowest in the country. See Chris Davis at the next meeting or post them to 9 Johnson St, Wembley.

### **SEPTEMBER TECHNICAL MEETING**

This will follow the AGM, sometime shortly after 8pm at SofPYC on Wednesday, 28<sup>th</sup> Sept. The guest speaker will be Harry Speight, fresh back from a trip to the UK where he visited rellies and revisited the coastal areas of his childhood and youth. He took lots of pictures of boats and waterways which will be presented as a slide show. If you've ever drooled over Classic Boat magazine (and I think Watercraft is excellent, too) then this will be the evening to attend.

### **OCTOBER TOOLBOX VISIT**

We are very grateful to Steve Ward for making his workshop available to us for the Toolbox Visit on the 8<sup>th</sup> October. Now many boat builders have to take whatever work they can get from time to time to stay functioning and no doubt Steve's the same, so there may be some mundane jobs around the shop but one project fascinates me; he's building fibreglass Dragon class yachts. This most elegant of pre-war Danish designs is still raced from, I think, RFBYC, but the old timber ones are staggering more than somewhat. Just like the Flying Fifteens at SofPYC they keep on racing but with a growing emphasis on synthetics. We can find out more at 16 Milson Place, O'Connor, from 2pm to 4pm on October 8.

## **CHANGE OVER IN THE EDITORIAL OFFICE**

Paul Thompson

This is the last edition of ABBA Newsletter from the Editor Mike (and Margo) Beilby. We all owe Mike a huge thank you for his tremendous work on our Newsletter over many years. He has taken on all aspects of its creation including; photography, writing, editing, production and distribution!

Mike is standing down due to ill health but I'm sure will remain as actively involved as he possibly can. Thank you Mike and we wish you the very, very best for the future. Thank you for a terrific job as Editor.

Paul Thompson will attempt to take over Mike's Editing and production role. Please feel free to offer any assistance with writing or production assistance if you can.



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