

Shotwick Lake Sailing



Newsletter – April 2008

Editorial

Hello and welcome once again to the latest Shotwick Lake Newsletter.

We are now well into our 2008 season and so far the racing results have been pretty varied with no real dominance in either the fast or slow handicap fleets.

The “Class Spotlight” is on one of the most popular classes around – the Topper.

This issue also happens to be our most “Hi-Tech” to date with an interesting article by Colin Cumming on boat design

The “Club Member in the Spotlight” is Allan Hughes.

In addition we have a number of other items which I hope you will find of interest including yet another embarrassing photo – who will it be this time?

Colin

TRAINING

The calendar for 2008 is now on the web site.

<http://www.shotwicksailing.org/trainingcalendar.htm>

Formal Training

Formal training under the clubs RYA (Royal Yachting Association) recognition, primarily targets introducing people to the basic skills of sailing as well as some further advanced courses.

The centre Principal is Tony Forster assisted by Tim Bowden. They can be contacted via the web site on training@shotwicksailing.org

What does RYA recognition mean?

It means that you can expect to be taught by an experienced instructor aboard a seaworthy, safe, well maintained and suitable craft, on courses within the RYA's proven training schemes at the supervision ratios defined by the RYA. Qualifications earned on RYA courses are recognised and valued in most parts of the world.

All the instructors are volunteers and have a genuine interest and enthusiasm to pass on their knowledge and skills to others.

The club is inspected regularly to ensure that training craft and instructors meet the high standards of the RYA. The RYA also carries out spot inspections during courses to ensure the level of tuition and the condition of the equipment remains consistently high over time.

The RYA is responsible for administering the recognition system and ensuring standards of training are maintained.

The club has RYA recognition for a number of dinghy sailing and powerboat courses.

Training is open to anyone as this recent photo from the level 1 & 2 Powerboat course shows!!



Courtesy of Colin Keogh

Class Spotlight - The Topper

The Topper is probably one of the easiest classes of sailing dinghy to recognise, not only due to its brightly coloured sails, its distinctive hull shape and construction material but also because at some time or other almost anyone of us has probably sailed one.

We have a number of keen Topper sailors (past and current) at the club who many of us know, some of whom have performed in with great distinction in the class including James Hopson and Tom Piggot – how about a story for the next Newsletter lads?

The article below is re-produced with the kind permission of the Great Britain Topper Association (<http://www.gbrtopper.co.uk>), the photos is from our own website.

*The **Simple and Sensational Topper** – Whether just messing about in boats, having fun off a beach, learning to sail, flat out blasting or competitive racing, there are so many reasons for choosing the fantastic Topper! It requires little maintenance, is easily rigged in a matter of minutes, is rugged and safe for beginners and an exciting race boat too as your skills develop AND it is car-toppable! It truly is the most versatile of sailboats!*

The Topper was designed by Ian Proctor whose other boats include the ever popular Wayfarer. It was originally constructed in GRP but this was changed quite early on to an injection moulding construction. After well over 20 years of continuous production (approaching 50,000 boats!) it is the outstanding build quality, durability and innovative design features that have made the Topper one of the most popular boats in Britain. The Topper hull is injection moulded with incredible precision, reaching a level of uniformity quite outside the scope of any other production system, either hand built or mass produced in GRP or roto-moulded plastic. The material is polypropylene which has proved to combine strength and flexibility with lightness and virtually everlasting life. Because of this proven reputation resale values are extremely high.

In 1977 the Topper was awarded the Design Council Award and the Horner Award for achievements in plastics. The Topper is used in the Open University television programme to illustrate the principles of craft, design and technology, the development of injection moulding techniques and the handling and use of plastics in industry.

The two main mouldings of the Topper hull are fuse welded together to produce a robust single unit. Specially shaped polystyrene blocks are fitted at this stage to provide extra stiffness and enormous reserves of positive buoyancy in the very unlikely event of the Topper's tough skin being holed. The hull of every Topper has a five year warranty proving that the builders have great confidence in it.

Clever design features include a clever swivelling mast gate that enables you to erect the mast single-handed. There is a brilliant rudder system that allows the blade to be set and locked in any position at the flick of a wrist. And the hull plate can survive the boat coming ashore at high speed with the dagger-board still down! The aluminium mast is un-stayed and in two sections allowing the spars to be stored within the length of the boat. The sail has a luff tube which makes rigging really easy. The daggerboard is made like a rudder blade of a moulded polypropylene which never snaps. But it can sink, so you must tie it on!!!

John Driscoll an RYA National Sailing Coach wrote "The Topper dinghy has a unique place in the world of sailing instruction." He went on to say " It is hard to find a sailing school or holiday centre without a fleet of Toppers and here's why: Topper's cutting edge comes from her robustness, her simplicity, versatility and her ease of handling ashore and afloat. She'll take all the knocks of a sailing day and bounce back smiling. Just like the students. She's taken the fear factor out of the capsizing drill. She's made it easy to learn and fun to be with".



Topper sailing at Shotwick Lake in 2007

Topper – the ideal circuit racer. *Because of the builder's commitment to uniformity of hulls and specification of fittings and equipment, a Topper can race with any other Topper, older or younger, on equal terms. A true One Design. With full International recognition from the International Sailing Federation (ISAF), the Topper phenomenon is spreading around the World.*

The Topper racing circuit organised by the British Topper Class Association is thriving. Huge turn outs are commonplace at the major events such as the six Sunsail Nationwide meetings, the Inlands and Nationals. There are over 90 open meetings at venues all over the country during the year too.

The Topper has been recognised as an RYA Junior Development Class and is part of the RYA Performance Pathway that could one day lead to a place in the British Olympic Team. Laura Baldwin, our representative in Athens sailing a Europe, began sailing in a Topper!

Developments – *Recently the Class has adopted the option of a centre main-sheeting system with a longer tiller extension as an alternative to the established aft sheeting. This has made the boat more comfortable to sail for some sailors, whilst others are staying resolutely with their original aft sheeting arrangement – confirmation that the rigorous testing process carried out to ensure that no competitive advantage would be gained was worthwhile.*

The Friendly Class – *this reputation is well earned both by the sailors themselves and their shore-side parents and supporters.*

Come and join in sailing a unique boat that is both exciting and rewarding to race or just sail for fun, and be a part of a great social scene. Download your membership form today!

Embarrassing Photo Time

The photograph below show the well known Liverpool pop group “Frankie Goes To Hollywood” best known for the No. 1 single “Relax”. What club members may not know is that one of the club stalwarts was actually in the band. Take a close look at the pictures below and see if you know who it is, the answer is in the picture later on.

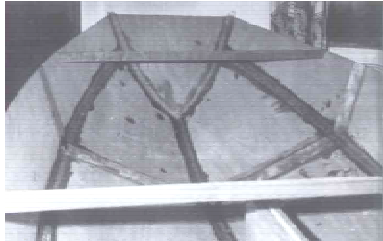


A Journey in Design of Performance Dinghies for Home-building

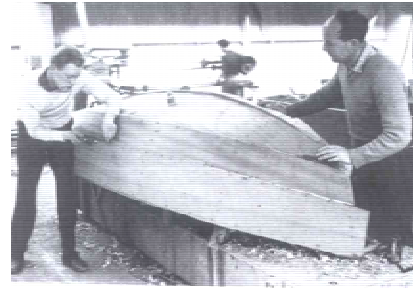
1. Introduction

Like most journeys this one started out with a simple objective and grew into a more complicated but ultimately rewarding experience. The original desire was to demonstrate that marine plywood could still be of value in the world of performance small boat sailing. This then became focussed on designing a modern conventional craft (as opposed to a derivative of a self-draining surf-board) that could easily be built by myself and perform well when sailed with my wife at the highest level in club racing.

Most dinghy dinghies designs in plywood are now over 50 years old and are of hard chine design using traditional frame and plank construction techniques. In the 1960's 'stitch and tape' construction was developed for kit construction which relied on the securing of plywood panels along their pre-cut outline, temporarily tied together with copper wire and then seamed over with woven 'glass tape' soaked in resin. This approach was usually allied with 'egg-



box' internal buoyancy to retain the hull shape. The most notable example was the Mirror dinghy which introduced many people to sailing through a range of low-cost kits, but was of rather utilitarian design.



Over the last 30 years, plywood has largely been replaced by moulded plastic alternatives. The reasons include; reduced build-time, less dependency on skilled labour and a robust attractive and durable low maintenance product. The downsides of this moulded product approach are high set-up costs which have to be recovered in the final product and a reduced ability for the individual to improve value by adding their own labour (as, for example IKEA achievements in furniture design).

Undoubtedly the success of moulded materials has stunted development of designs suitable for construction in plywood but the question is whether it improved value (value = performance/cost), or that it is more a case of improved convenience and versatility. My belief is that the GRP products are relatively expensive (but less so than current professionally built wooden equivalents) and that the new rota-moulded products do not compare that well in performance terms within club series sailing when compared to their plywood equivalents (e.g. Fireball PY 982 and Topper Xenon PY1070). Also it would appear that the robust construction of many of the older plywood designs did not fully exploit the extraordinary stiffness and the strength to weight ratio of plywood resulting in unnecessarily heavy boats which were easily replicated in the denser moulded materials. So began a six year journey which has culminated in the development of three high performing conventional dinghy designs for home construction in plywood, using a novel and patented form of frameless construction.

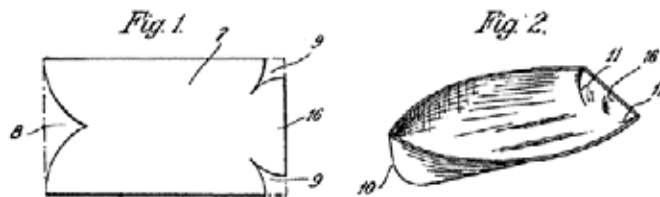


2. Single Plank Construction

For construction in wood to appeal to the amateur builder it has to be rapid as well as simple, with certainty of outcome and resulting in a pleasing shape. This was the context for investigating what is known as 'single-plank' construction. Single-plank means that the floor and sides are fashioned from the same planar piece (albeit made-up of connected panels). The variant form is 'single-plank per side' where the planar shape is divided along the keel-line.

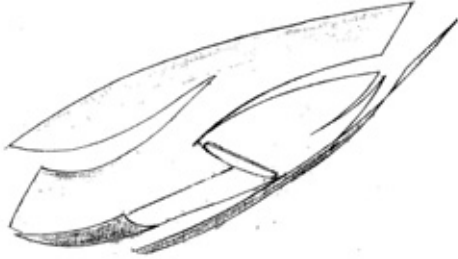
Panther 2

An early example is illustrated opposite, taken from a patent registered in 1932 by B.F.S. Baden-Powell titled 'Improvements in Boat Construction'.



For simplicity I started by investigating this subject for non-transom or double-ended craft. Two types of bow configuration were considered. The first type where the chine intersects the bow (e.g. GP 14) and the other type where the chine curves upwards in the front quarter to intersect the gunwale just before or at the top of the bow (e.g. Seafly/ Mirror 16).

The 'eureka' moment came when it occurred to me that if both these forms were married in the same double-ended design, it was unnecessary to link the chine lines (which cause the formation of separate planks) but instead, to run them past each other in the vicinity of the mid-section to form a 'z' outline within each side of the single planar shape. When the adjacent cuts or darts thus formed were pulled together then a strong frameless hull-shell simply 'popped' up into shape. I have subsequently patented this concept.



The hull was constructed by joining a series of cut-out panels with butt-straps. The adjacent cut-lines were first pulled together using nylon tie-pulls causing the hull to emerge into its 3 dimensional shape around a single low-level rib. The seams were then sealed inside and out with fibreglass tape.



At 13' 3" long and 5' 10" in width the hull's wide sweeping curves and traditional rig combined to give **Pathfinder** as she was now known a very attractive look with the unique arrangement of chines creating generous width without excessively flared topsides.

Pathfinder has proved to be an effective performer at traditional boat events taking line honours and

outright winner on handicap at the OGA events at Ulswater in 2006 and at Holyhead in 2007. Since then Fyne Boat Kits of Kendal have developed and created a kit of the design which currently markets at £1100 excluding sails and rig. The Fyne Boat Kits version is at 14' 6" in length one foot longer than my original prototype, but retains the same rig. It is this craft that I intend to campaign a various traditional boat events throughout 2008.

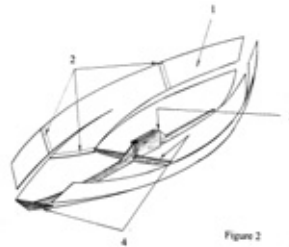


Figure 2

The next step was to adapt this approach for the design of a conventional racing dinghy. In design terms transom craft introduce another variable, that of a longitudinal curve to the keel-line to lift the transom clear of the water and eliminate transom drag (in double-ended designs because of the streamlined stern a straight keel run can be



retained).

This required a related but different single-plank template shape which became the subject of my second patent.

For the conventional racing dinghy design I chose to focus on that area of the market currently occupied by the aging Albacore Design. This represented the largest boat I believed this form of frameless construction technique could support in 6mm plywood and which my wife and I could sail successfully in club racing. At a length of 15 ft I chose the comparatively low length to width ration of 2.3 giving a width of 7 ft, both prove the construction technique and the qualities of modern marine plywood and compensate for our light crew-weight.



For simplicity I decided on a single-plank per side configuration (albeit made up of joined panels) and a vee'd floor with a rocker rising from the rear of the centreboard case after a straight run aft from the bow.

Construction was undertaken by first forming a central spine comprising the centre-board case and two sets of vee'd floor ribs to which were attached the single planks for each side and then simply pulling together the adjacent cut-lines or darts with nylon tie-pulls. The seams thus formed were sealed with resin impregnated GRP tape and the hull completed in conventional fashion by attaching a simple open deck layout. Further internal stiffness was added through low level bow and stern built-in buoyancy and the addition of longitudinal inner floor battens and external bilge strips. The rig is held in place by and an aluminium space frame.

In club racing Panther has proved very quick with its distinctive chine configuration combined with its vee'd floor shape creating a wide powerful easily driven hull while limiting flair in the upper sections



This enables the large mainsail and relatively small foresail to be effectively sailed by a variety of crew-weights. Currently it sails off a rating of 1056 on two sails. (Carl remains convinced that in the right hands it can be made to go quicker and should really sport a spinnaker). Fyne Boat Kits are currently working on a kit

production version of this design which will feature a vertical bow with a narrower entry and a slightly lowered shear-line giving it an altogether more aggressive look.



*Having proved the build concept for transom boats, I was encouraged by others to consider an altogether smaller racing dinghy using the same approach. I must confess at having reservations about entering the most crowded sector of the racing dinghy market, however I penned **Puma** at 12' 6" in length and 6' 5" in width as a scaled down version of Panther.*





The hull shell was again rapidly created around the pre-formed centre board case. The decks and fitting-out were completed in conventional fashion with a total build time of only 8 weekends (120 hours excluding fitting out and painting). The bare hull weight is less than 54kg, sporting a two sail rig of 8.6 sq. m. and currently sails to a PY of 1155 which is quicker than most of her peer group.

Puma is perhaps the 'prettiest' of my designs and has turned in some good results. It has however in my opinion slightly underperformed against expectation which I accept may have been set too high). This I attribute to its rather short waterline for a two person dinghy (11' 6"). It may be that **Puma** is more suited to being primarily a single-hander with occasional use as a two-hander (by the removal and addition of its small jib). This would place the craft somewhere between the Solo and Laser. I intend to continue to experiment with **Puma** while awaiting the arrival of the Fyne Boat Kits pre-production version of **Panther 2**.

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(Acknowledgement publishers Ward Lock and 'The Complete Book of Sailing' by Peter Cook and Barbara Web two photographic illustrations; the UK Patent Office illustration from B.F.S. Baden-Powell 1932 patent titled 'Improvements in Boat Construction'; photographs Craig Hughes, Peter Farrer and Colin Keogh)

Thanks to Colin for a very interesting article.
CK

Club member in the spotlight - Allan Hughes

I am the "Old Fart" – (his words not mine – Colin) with a grey beard currently sailing Solo 3822 in club races.

I have had many years experience mainly sailing on the River Mersey.

Enterprise	3 years	West Cheshire S.C.
505	15 years	West Cheshire S.C.
Pacer	3 years	Dee S.C.
Graduate	8 years	Shotwick Lake
Lasers	3 years	Shotwick Lake
Squibs	4 years	Royal Mersey S.C.
Flying Fifteens	10 years	Bala S.C.
Solo	5 years	Shotwick Lake

When Shotwick lake opened in about 1980 I saw this as an ideal opportunity to introduce my two boys, then 9 1/2 and 8 years old to racing dinghy's.

Some older members may still remember me shouting instructions from around the sides of the lake to them during their early years of club racing!!

At this time we had three Graduate dinghies in our family regularly racing in club events and Shotwick normally saw 10/12 Graduates racing with Miracles and on average the fleet consisted of around 20 boats every Sunday for several years.

At that time we had some excellent sailors at the club particularly Tony Woods (Junior Enterprise Champion and 4th in the World in Hong Kong), he was very helpful to my sons and Graham my youngest eventually went on to become a National Champion in the Graduate class with Tim Jones as his crew.



*An Enterprise Open at Shotwick Lake – Courtesy of **Sharon Bouckley***

I was very proud when my sons Paul and Graham along with Steve Jardine represented Shotwick Lake at the Wilson Trophy event at West Kirby.

Eventually my boys went on to University so then I decided to move to Bala Lake to race Flying Fifteens, this was great club racing with a fleet of 15 to 20 boats.

Included in my “sailing career” I also travelled to numerous Open Events and National Championships, never winning anything, and so with many other parents spent years taking my sons onto the Open Circuit.

Approximately 5 years ago, Graham introduced me to Solo’s and to my surprise I found out that I was still able to handle a dinghy.

So here I am back at Shotwick Lake still learning and trying to race properly.

Having been involved in many Clubs I do know that Shotwick rates highly for friendliness and I am proud to be a long standing member.

p.s. If anybody is looking for sailing tips then please let me know and if you find any then don’t forget to tell me.

AVH



Allan sailing his Solo at Shotwick Lake – Courtesy of **Colin Keogh**

Bala Easter Regatta

What difficult weather conditions to run a regatta! No sailing was possible on Saturday due the wind speed being off the scale of the anemometer.

Due to there being no racing on the Saturday 4 races were held on the Sunday. With the wind speed force 3 gusting 5 it was tough sailing conditions which clearly showed the effects of eating too much over the Christmas period for me.

At the windward mark where it was time to hoist the kite it was clear that we were in for a bumpy ride as the kite set with a gust which took us off down the lake. Trying to emulate some of the stories that have been heard from Jerry Hannabus (ex Scorpion National Champ) taking the centre board completely up whilst on a dead run in these gusty conditions was not a good idea as we nearly death rolled.

The racing was close and in a tussle with the Merlin Rocket it was clear that some good old fashioned work was to be done and there was not a moment to rest.

Video footage can be found on

<http://www.youtube.com/watch?v=eIY3xTRub4Q&feature=related>.

The results and a full report are posted on the Bala Website at www.balasc.org.uk.

The next event that will be taking place at Bala will be the Whit. Regatta.

Look forward to seeing you all

Rich

(Well done to Rich and his crew Ed Barnes who won the event – don't be so modest Rich).

The photographs below are produced with the kind permission of Bala S.C and others, a full list of forthcoming events at Bala are: -

24-26 May	Whit Regatta, plus Laser 2000 Open Meeting & Miracle Welsh Area Open Meeting
21&22 June	Tinker Open Meeting
5 July	Long Distance Race
6 July	Long Distance Pursuit Race
13 July	Solo Challenge Trophy
4-8 August	Family Week
9&10 August	Flying Fifteen Open Meeting
23-25 August	Regatta & Scorpion Open Meeting
21 September	Junior Open Meeting
4&5 October	GP Inland National Championships



Rich & Ed show excellent upwind technique – Courtesy of Bala S.C & Jon Williams

The Big White Ball

Visitors to the club in recent months cannot help to have noticed our very own “Big White Ball”. This was presented to the Club in recognition of it’s success in obtaining National Lottery funding.



Our “Big White Ball” – Courtesy of Colin Keogh

Now that we’ve got our ball why not let us know what we should do with it (keep it clean please). Suggestions so far include a five a side football match using our Toppers and Oppies and for our older viewers (me included) a re-make of “The Prisoner”.

More Club Success

We have already heard about the success some of our members have achieved in their racing as well as the Lottery Funding but there are a number more – check out the News section on the website. <http://www.shotwicksailing.org/news.htm>

These include: -

**Volvo
Champion
Club
status** Volvo Champion Club Status
Shotwick Lake Sailing Club has
achieved the Volvo Champion Club
status.



**Dragon
Sail** Shotwick Lake Sailing is the first club in North Wales to achieve full Dragon
Sail status

Dragon Sail is an assessment of our procedures, equipments and instructor resource particularly to support junior development at the club.

Dates for the Diary

**2008
Open
Day** Shotwick Lake Open Day
Following the overwhelming success
of last years Open Day, we are
holding another one this year on
**Sat 7th
June** Saturday 7th June.

It will be an opportunity for non-members to have a try at sailing and windsurfing. Just bring some clothes and trainers that you can get wet. Changing rooms and showers are available.



We will be opening the gates to the public from 11:00am until 4:00pm. We are a family oriented club and are proud of our facilities and actively encourage disabled and young sailors. This will be an excellent opportunity for Shotwick Lake Sailing Club to show off our facilities and promote what our club has to offer. Members are encouraged to pass on the word and to let friends, family and work colleagues know about this great event.



Last year our first open day saw an unprecedented number of visitors and we were rewarded with sunshine and a steady breeze for the whole of the afternoon. The clubs new Wanderer dinghies didn't stop for minute taking visitors out for a "taster". Likewise, our Windsurfing Secretary, Peter was kept busy with "wannabe surfers" on the club simulator and on the water. This year we also have our six new Topper dinghies which will be in on the action too.

2008 *The 2008 Membership form is now available. You can download it from the*
Member *[Join us](#) page on the website.*
-ship

Existing Members: Remember to renew your membership by 30th April to avoid paying the Joining fee!

The Last Word

As always I hope you have all enjoyed this latest edition of the Newsletter.

Once again I would like to thank everybody ho has contributed either in words or pictures (or both) with a special thanks to the people at the Topper Association and Bala S.C. for allowing me to reproduce their material.

Please send any articles to newsletter@shotwicksailing.org

Colin

PS For answers to who was in Frankie Goes To Hollywood the answer is in the picture over the page.



Courtesy of Sharon Bouckley

Yes it's our very own Mr Tony Forster.

Remember if there's an embarrassing photo of you out there then I will track it down, my next victim is already lined up, the photo is on file and will be used – is it you?

Colin