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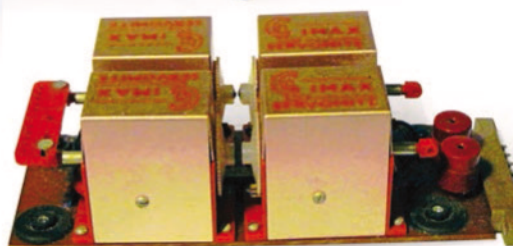
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Just three of the reasons you won't want to miss the November issue of Model Boats

Amongst all the other fascinating content in this month's issue, we've got a fabulously fun mini pull-out plan (and accompanying build guide) for you, courtesy of the always innovative Ashley Needham. It's a fairly easy and inexpensive project but, in order to get the most out of the end result, you'll need to rope some mates in! That shouldn't be too hard a sell though, as while it will involve each of you working towards the same goal, there's still plenty of scope for everyone to do their own thing – as you'll see from the individually customised floating bumper car bodies constructed by Ashley and his fellow Bushy Park boaters. Not surprisingly, these whacky little waterborne dodgems have attracted much lakeside attention – particularly as there's been no hesitation in allowing bystanders to try them out (they have, after all, been designed expressly to take knocks). What's more, they can just as easily be operated in very shallow water (such as in a large paddling pool), so they proved an enormous hit when taken along to the Royal Egham Show over the recent August Bank Holiday weekend. Apparently, numerous parents enquired how much it would cost for their children to have a go. In this instance no money changed hands, but clearly these floating bumper cars could be real money spinners at all sorts of events, as well as serving as a fantastic way to promote the hobby to a much wider audience.

The November issue will feature a full-size plan, which we've chosen especially for those of you who've been requesting more trawler coverage (see page 74).

As previously mentioned, your feedback is so important to us, so we'd be most grateful if you could complete our online reader survey (see page 11 for details). It takes just a few minutes and every participant will be automatically entered into the associated prize draw. Enjoy your read!

Lindsey

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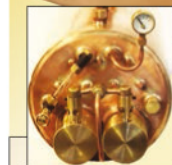
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If you have a news story for these pages, please contact the Editor, Lindsey Amrani, via e-mail at editor@modelboats.co.uk

New from Vanguard Models



windward faster than any vessel then afloat – and with a cargo as perishable as fish, minutes counted. Those that survived into the steam age enjoyed new careers as fast yachts.

Priced at £179, the kit (Ref. VM/11) will feature:

- * Laser cut materials
- * A double planked hull
- * A laser cut and engraved deck
- * 2 x photo-etched brass sheets
- * Fittings in wood and resin
- * A full colour instruction manual with photographs
- * 11 plan sheets
- * A 14ft cutter (pre-made hull) and two barrels

A premium pre-made sail set (VM/11/UGS) will be available to order separately, priced at £45.

On completion, the resulting model will measure 517mm length, 94mm in width and 487mm in height.

Vanguard Models' 1:64 scale kit for the Barking Fish Carrier, *Ranger*, is due for release in late September/early October. This will be the last addition to Vanguard's Fishing Vessels from the British Isles series for the foreseeable future, as the company now plans to shift its focus to larger period ships.

When the real *Ranger* was built, back in 1864, measuring in at 74ft 3ins, she represents a typical example of her kind. Barking Fish Carriers could sail to

Recently introduced to complement Vanguard's range of fishing vessels is a 1:64 scale set of 3-D printed fishermen. All three figures included are clad in typical period clothing, including the leather/wax-coated jackets that fishermen would have worn at that time.

Also new are a variety of high-quality resin cast 3-D printed Royal Navy figures. These include gun crew sets in a choice of 1:48, 1:64 or 1:72 scale (each consisting of six crew members), a Royal Marine Officer and Private set, a set featuring a pair of Royal Navy Able Seamen and an individual Ship's Cook – all offered in 1:32, 1:48, 1:64, 1:72 or 1:96. Additionally, Edward Pellew and Horatio Hornblower join the famous historical figures line-up, and here customers have a choice of 1:32, 1:48, 1:64 and 1:72 scales.

All these figures come as individual unpainted items that require no assembly and are printed onto a small base from which they can be removed, so there are no awkward connection nubs to remove. ●



The new Royal Navy gun crew sets (each featuring six individual figures), available in 1:48, 1:64 and 1:72 scales.



The Airbrush Company's 75th Anniversary Sale

This year marks a major milestone for the Airbrush Company, as it celebrates 75 years in business. So, to thank its customers for the role they've played in the firm's success story, a special 75th Anniversary Sale will be run for the entire month of September. Please note that the goods reduced during this period (which you can view and order online at <https://www.airbrushes.com>) will be offered on a first come, first served basis and will be subject to availability.

U-Bootee erratum

Sincere apologies (both to contributor Glynn Guest and to all readers) for the missing words in the first sentence of the supporting guide to last month's free plan for *U-Bootee* and any confusion caused; this should have read: "On many of the ponds and lakes on which we sail our model boats, radio-controlled submarines are still something of a rarity".

WARSHIP 2022 winner

Congratulations, Mr D.P. Francis of Dunfermline, Fife – you're the winner of our *Warship 2022* Annual Prize Draw! Your prize will shortly be winging its way to you courtesy of Osprey Publishing Ltd.





Manvers Waterfront Boat Club Open Day

Manvers Waterfront Boat Club (www.mwbc.org.uk) will be holding a model boat open day on Sunday, September 25 from 9am to 3pm at the Manvers Waterfront Boat Club, The Boathouse, Station Road, Wath-upon-Dearne, Rotherham, South Yorkshire S63 7DG.



This free sailing event will be open to all types of scale boats, even deep keel yachts – although, please note, no fast electrics, petrol or I.C. powered models can be accommodated. Facilities include toilets and a cafe serving hot and cold food and drinks. Free parking will be available to all model exhibitors at the lakeside, but please note spectators must park in the 'Pay and Display' car park.

As this will be the Club's first open day, provision of exhibitor display tables will be limited, but those wishing to bring their own will be most welcome to do so. For further details, contact Stephen Perkins on 07899 792334 after 6.30pm or via email at prestige29@talktalk.net or steveperkins2@hotmail.co.uk



Manchester Bring & Buy Sale

The Mutual Model Boat Society (www.mutualmodelboatsociety.co.uk) will be holding its Grand Modellers Bring and Buy Sale on Sunday, October 2, 2022, from 9.30am to 1pm, at the Crimble Croft Community Centre, Aspinal Street, Heywood, Manchester OL10 4HL.



Admission will be charged at £1.50, and visitors will find the whole site is wheelchair friendly, with full facilities, including toilets, a café serving food and drink, etc.

Vendor's tables can be booked on a first come, first served basis, for a fee of £10; to make a reservation please contact Colin Travis on 07905 028298.



Thanks to the funds raised by last year's show, the Sleaford & District MRC was able to present a cheque for £4,188.52p to the Lincs & Notts Ambulance Service.

Charity Model Makers Show

The Sleaford & District Model Railway Club will be hosting its fourth Charity Model Makers Show, in aid of the Lincs & Notts Air Ambulance Service, at Ruskington Village Hall, Parkfield Road, Ruskington, near Sleaford, NG34 9HT from 10am to 4pm on Sunday, November 20, 2022.

The show, which is being sponsored by being sponsored by B&H Models, Digitrains, Elaines Trains and Mad about Trains, will embrace not only model railways but also kit-built models, R/C controlled models, fairground attractions/dioramas, dolls houses, Lego, matchstick modelling, and more. There will also be demonstrations to view and trade stands to browse. The hall is wheelchair-friendly, and refreshments will be available.

Admission will be charged at £4 for adults, while accompanied under 16s will be admitted free of charge.

Prizes to be won by simply having your say

In order to ensure Model Boats is as relevant to your needs as possible, we want to learn more about you. We have, therefore, created a survey that you'll find posted both on our website at www.modelboats.co.uk and on our Facebook page at www.facebook.com/modelboatsmag, and which we'd be grateful if you could take a few minutes to complete.

By way of thanks, all respondents will be entered into a **FREE PRIZE DRAW**.

There will be five lucky winners digitally selected at random, with a first prize of £200 worth of books and four runner up prizes of £50 worth of books from mortonsbooks.co.uk.

Many thanks in advance – and good luck, everyone!

**WE WANT
YOUR
FEEDBACK**



Just launched ModelU crew



ABOVE LEFT: The real life 'model' being scanned. You are free to wear what you want for your own scan, from a captain's uniform to a boiler suit, and you can incorporate any props you feel are appropriate, such as a mug of tea!

ABOVE RIGHT A figure generated from the scan as it comes out of the 3D-printer ready for cleaning up and painting.

RIGHT: The scan stored in the system is also used to generate painting guides, the online catalogue, as well as the graphics on the product packaging.



Want to add life to your latest build? **Richard Simpson** introduces us to a company that has the best and most convincing way of doing this all figured out...



You can easily pose so that your own scan will suit a specific task on the completed model, or select an off the shelf item that matches your requirement.



The possibilities for creating cameo scenes on your model are endless.

ModelU has been producing superb quality figures for the model railway world for a number of years now, which I've frequently put to good use on my own layout. Recently, however, it has also added a series of astonishing realistic fishing boat crew figures to its range and is now contemplating expanding on the marine theme.

Movement of the people

The founders of ModelU launched their business in 2015 from a converted garage in Wales and for the next three years attended just about every show on the model railway calendar while learning the hard lessons of running a business. The innovative approach taken to creating a brand of truly credible model figures, however, soon saw them winning awards and picking up a loyal following. Inevitably, as demand for the

product grew, larger premises were required; this initially prompted a move to Shrewsbury, followed by a further relocation to Bristol, where the company remains based today.

Keeping it real

The perfectly proportioned and realistically posed figures ModelU produce are created by scanning actual people. The company is then able to use these scans to 3D-print figures to any desired scale. This means that, as well as the range of figures in specified scales offered on the website, the company can also provide bespoke figures in whatever

*The painted figure in place on a model.
See how easy it is to become the captain
of your own ship! Image courtesy of
Mr Darren Sherwood-Jones.*



ABOVE: Three figures, in three different scales, printed off from the same scan. RIGHT: A crew at rest, sitting around having a chat, always works well. Thanks to ModelU, however, you could equally really personalise your model by featuring scaled-down replicas of yourself and family members/friends in a similar scenario.

scale is required. The really interesting aspect of this is that ModelU can scan absolutely anyone, dressed in any attire and striking any pose, and then transform that scan into a scaled-down figure. What's more, this service is not only available at the ModelU headquarters in Bristol but at the model railway events the company attends up and down the country. Future presence at model boat shows is currently being looked into, which is exciting news, as this would allow anyone attending to be scanned at the venue and then receive a miniaturised figure of themselves in the post just a few days' later. Imagine being able to add an immediately recognisable figure of yourself, serving as, say, captain, deck hand or even chief engineer, to one of your model boat/ship builds.

As for the 'off the shelf' figures, they really are superb. Available in a range of scales, from 1:200 right up to 1:12, the detail in the features remains crisp and clearly defined, making painting them a pleasurable and highly rewarding experience.

The figures arrive with their supports still in place, but these are attached at very fine points, making the removal of them quick



and easy with a pair of side cutters; you can even, in some cases, simply snap them off. A brief dressing up of the attachment points with either an abrasive board, micro file or scalpel then sees your figure ready to paint.

The ModelU website gives suggested colour schemes for the figures, but you can, of course, paint them to suit your own individual requirements.

Getting the best out of people

In a follow up to this story, I will be getting hands on with a couple of examples from ModelU's current range of fishermen figures and explaining/illustrating just how they can be painted so as to show off their incredible detail to best advantage. Watch this space! ●

ModelU contact details

Website:
www.modelu3d.co.uk

E-Mail:
info@modelu3d.co.uk

Phone:
07887 803737

Address:
Unit 21C,
Easton Business Centre,
Felix Road,
Bristol,
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Test Bench

Hands-on hobby-related product assessments

Considering shelling out for a new kit? On these pages, fellow modellers lift the lid on you what you'll get for your money.

Those in the industry that supports the hobby wishing to send in review samples for inclusion should contact the editor via email at editor@modelboats.co.uk or post samples, together with all supporting information, to **Models Boats, Mortons Media Group, Media Centre, Morton Way, Horncastle, Lincs LN9 6JR.**

Denes Designs' Smoke Generator

Richard Simpson tries out this innovative new bit of kit

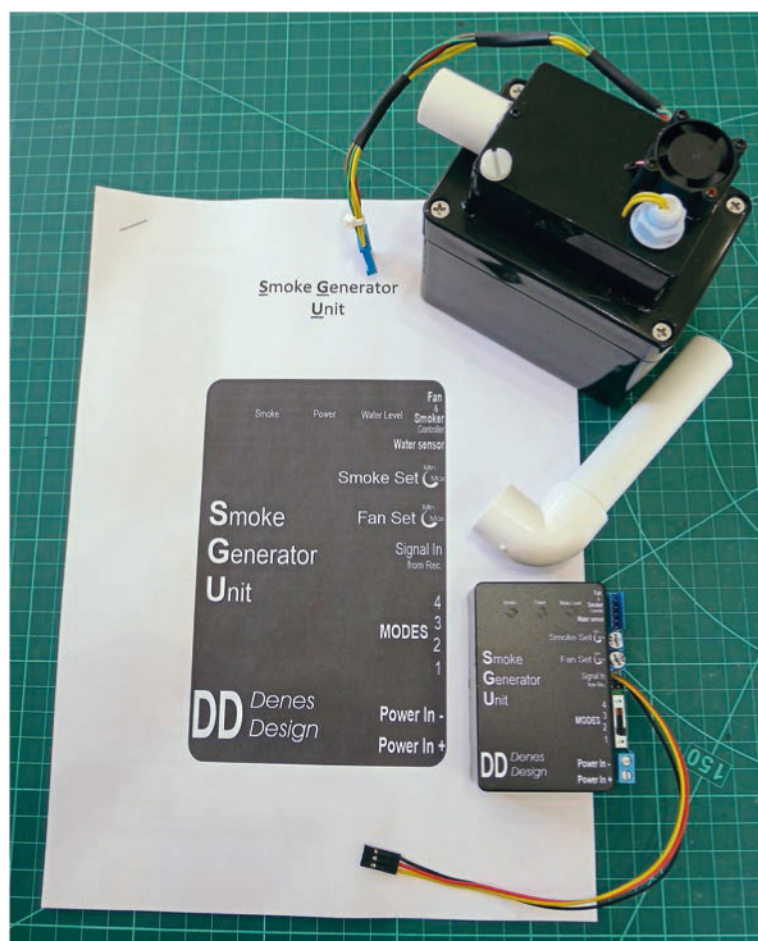
Over the years I have followed with interest a number of manufacturers who've tried their hand at achieving that Holy Grail of model boater's requirements, namely the creation of a realistic exhaust smoke. Most early units used heated oil to generate

smoke; however, these tended to produce small amounts of smoke, used quite a bit of battery power to heat the element, and, of course, incorporated a heating coil in a bath of oil sat in the bottom of your pride and joy in the middle of the pond. I was always a little apprehensive!

The big step came when a company, by the name of JJC, who have long since ceased trading, produced a smoke unit that used a nebulizer to create cold water vapour. This had a number of advantages: it used very little power; was extremely controllable; there was no heating element involved; and all you needed when it stopped producing smoke was to top up the tank via the flue with some more fresh water. The challenges with this unit, however, were that the tank and controller were of a size only really suited to larger models, and the nebulizer required 24-volts, so you needed an additional power supply.

Some of you may have noted a couple of very interesting and innovative products recently from a company called Denes Designs. These have mainly related to steam control; however, the latest project has seen this firm turn its attentions to a smoke generator. Consequently, I was sent a prototype unit to evaluate and compare with the alternatives.

The items I received were the tank unit itself, which contains the nebulizer, a tank level switch, a small fan, a six-core cable with a dedicated plug fitted and an exhaust



ABOVE LEFT: The prototype unit as supplied. Note, on top of the tank, the level switch and the fan unit with the pre-fitted stub for the exhaust. Controls include smoke quantity, fan speed and one of four different modes. ABOVE RIGHT: A quick test on the bench demonstrates the impressive quantity of smoke generated. A 7.2-volt battery was used for this test, demonstrating the voltage flexibility. The smoke follows the throttle signal closely.



A very windy day probably wasn't the best of occasions on which to demonstrate the unit's capabilities. It still, however, produced enough smoke to make the model in which it's installed look even more realistic out there on the water.



Installation proved to be straightforward and trouble free, with connections being very simple. It's purely a case of power in; plug the six-core plug into the control unit; plug the control unit into the receiver; and then plug the speed controller into the control unit. It really couldn't be any easier.

stub pipe fitted to the tank. The control unit comes very neatly housed in a small black box featuring indicator LEDs across the top and controls and connections along the right-hand side. A comprehensive set of instructions, including details of how the unit needs to be set up and how personal preference adjustments can be made, is also provided.

On the bench

For the sake of the bench test, I plugged it all together with a spare radio receiver. The first surprise was the quantity of smoke, which was very impressive and far more than I have witnessed from any other unit. What's more, the smoke quantity followed the radio signal well, and there was around a 10-second delay after the 'engine' stopped before the generator cut out.

Installed in a model

The next step was to try it in a model. The model chosen had, in its past, been fitted with a heated oil type unit as well as a Steam Master unit, so a good comparison between these and the Denes Design's new one I was about to install could be made. I sat the tank on a platform that I'd fitted between the battery and the motor to enable the flue to be easily directed into the funnel. The control box I sat very neatly in front of this, thereby allowing for easy access to the controls and adjustments, and close proximity to the receiver. A huge advantage of this unit is the fact that it will accept any voltage from 6- to 18-volts, which makes it a lot more flexible than previous types. I tested it at 7.2-volts on the bench, where it worked perfectly, but connected it to 12-volts in the model.

The Denes Designs' Smoke Generator in brief

Pros:

- * Copious quantities of vapour produced.
- * Can accept any voltage from 6v to 18v
- * Follows the motor operation closely.
- * Does not require a 'Y' cable to provide the signal, as the throttle cable from the receiver goes directly into the control unit and the cable from the speed controller plugs directly and very neatly into it as well.
- * Very controllable, with both smoke generation and fan speed adjustable, and four different modes of operation available.

Cons:

- *The six-core cable could do with being a little longer to give more installation flexibility.

Denes Designs contact details

Website: www.denesdesign.co.uk

email: design.denes@gmail.com

On the water

On the water the unit behaved perfectly. Despite being out for half an hour and producing good quantities of vapour, the tank didn't require topping up. The smoke followed the motor speed and stopped when the motor stopped, so, all in all, the effect was simply superb. ●



The hull as purchased. The cabin end 'wall' bulkhead can be clearly seen.

The Orphan's tale

John Mileson tells of how, with a little imagination and a lot of TLC, he transformed a discarded old hull into a charming *Swallows and Amazons*-style sailing dinghy

Of all the books I recall from childhood, including *Rupert Bear*, *Biggles* and *The Famous Five* stories, my favourite was *Swallows and Amazons*. Published in July 1930, *Swallows and Amazons* was written by Arthur Ransome. The story is set in the Lake District during the summer of 1929 and centres around two families of children, the Walker family – the 'Swallows' and the Blackett family – the 'Amazons', and the adventures they have in their small sailing dinghies. It's a great childhood romp and the inspiration for my latest sailing boat model, which I've named *Orphan* – the reason for which will become apparent as you read on....

Are you sitting comfortably?

Then I'll begin... My story starts on a grey overcast morning as I set out for the Mayhem meeting in Wicksteed Park. This was back in May – although even for those of you unfamiliar with this annual event, I suppose the clue in the title rather gives that away! Anyway, this was first time I'd attended, so I wasn't entirely sure what to expect. Held over two days, I imagined I'd be bored after a couple of hours. Not so!

On arrival, I noticed the pond was surrounded by a series of model boat club stands but that a somewhat disappointing number of trade representatives were present. This seemed rather a pity, as I was sure I wasn't the only attendee looking

forward to spending some money on model boats and accessories.

During the two days that followed, I wandered around the same stands several times looking at the range of second-hand boats for sale, most of which were out of my price range. In the late afternoon of the second day, however, I decided to make one final circuit. One of the of the club stands

"Call me a soft touch, but it was like the runt of a litter of puppies, begging to be taken home with someone"

was selling off a variety of odds and ends, old tools, etc – most of which had obviously been garnered from a shed clear out. As I have enough rubbish of my own, I almost walked on by, until suddenly, right at the back of the table, I spotted something that tugged at my heart strings. Languishing amongst the unsold 'stock' was what appeared to be an unwanted 'orphan' in the shape of a forlorn old boat hull. Obviously, after two days of inspection nobody had wanted to adopt this sad and timeworn scratch-built hull. Made from aged, badly discoloured, unpainted plywood, and covered in years of dust, for some inexplicable reason it appealed to me. Call me a soft touch, but it was like the runt

of a litter of puppies, begging to be taken home with someone (there would come a day when I'd feel less kindly disposed to canine critters, but more on that later).

So, without studying the hull in any detail – in fact I didn't even notice the large hole in its underside – I parted with £10. Hugging it to my chest, I then made my way back to the car as quickly as possible in the hope no-one I knew would spot me carrying what could only be described as a 'wreck'. Secretly, however, I was over the moon!

An added bonus, I thought gleefully, was at least I wouldn't have to sneak indoors under the cover of darkness. I could declare this purchase to my wife with a clear conscience.

First lecture

Surprisingly, the reception I received was far from rapturous. *"I cannot believe you actually paid £10 for that load of firewood. No wonder nobody else wanted it!"* Not a very charitable greeting really. So, I headed out to the shed. Maybe I had been a gullible mug?

Once ensconced in my little sanctuary, I was, for the first time, able to closely study my treasured purchase. Apart from the grime and cobwebs, which were easily removed with the vacuum cleaner, the hull was obviously intended to be a motorised cruiser. It had in the dim and distant past clearly been exceptionally well made, mainly from plywood, which with age had darkened



ABOVE: The hole in the underside plywood skin was repaired with a patch of plywood on the inside, and a skim of filler on the outside. RIGHT: Using a coping saw, the original cabin end wall was removed. The boat now resembled a rowing boat.



Either side of the keel, a strip of teak was bonded onto the hull, with filler added to blend them in. Two brass angle strips were then screwed onto the wooden strips. The series of holes drilled along the brass would allow adjustment to be made when positioning the keel.

and become a little brittle. The main problem was going to be the hole in the hull, although luckily this was below the waterline so wouldn't show too much once repaired. Keen to get started, a patch of thin plywood was bonded inside the hull and the outer surface

was filled with P38 body filler. This allowed me to go to bed safe in the knowledge that at least now my newly adopted orphan appeared sound.

Knowing little about boat design, the following day I spent a contemplative hour

"Damn, damn, damn! I should have known better..."

deciding what I could turn the hull into. I'd firmly rejected the suggestion of firewood. I also knew that I didn't want a cabin cruiser.

One of the bulkheads appeared to be an end 'wall' for a cabin. But with this removed I would be left with a glorified rowing boat! What then crossed my mind was a simple sailing boat.

Second lecture

Unsure of what sail configuration would suit an ex cabin cruiser hull, I opted to 'phone a friend': my erstwhile chum, Les. No sooner had his phone began to ring, however, I realised I was making a terrible mistake. I, therefore, hurriedly switched off my mobile, forgetting that my number would already have registered in his 'missed calls'. Having led me astray and got me into a whole lot of trouble in the past, I don't know what possessed me to even think of calling him. Inevitably, though, it wasn't long before my phone began to ring, and it was, of course, Les. Should I answer it, or should I just emigrate!

"Hello mate, what are you up to?"

Reluctantly, I attempted to describe the type of hull I had and how it had come into my possession. I was, I explained, trying to decide what type of sail configuration would be most appropriate. Damn, damn, damn! I should have known better. I'd given him full rein and now there would be no stopping him. And sure enough, for the next I don't know how long he verbally battered me with every conceivable type of sail known to mankind. After what seemed like a relentless ear bashing, he finally suggested a 'spritsail' concept. And before I could get a word in edgeways to thank him for his 'suggestions', he continued on, and I was up to my neck in



ABOVE: The cause of all John's problems and the ingredients for disaster! LEFT: The mast and boom, etc, were planed up. Each was formed by gluing a series of strips of wood together. At this stage they were made longer than necessary in order that they could be cut to length when fitted to the dinghy.



The lower panels of the dinghy were strengthened with fibreglass matt and resin. The inner sides were kept free of the resin as John planned to stick plywood planks onto these surfaces.

snotters, brails, muzzles and halyards. When at last he took breath, I was finally able to make my excuses and hang up.

Onwards...

Feeling weakened by this experience, I decided planing up a mast and boom would prove therapeutic. I hadn't a clue what diameters, or lengths, these should be, so I just carried on until they looked 'right'.

Having opted for a simple sprit sailed sailing dinghy, my first job was to cut out that original cabin end wall. Using a coping saw this was relatively easy, although the old plywood did tear a bit. Never mind; this would ultimately be covered up.

I ought to confess that at this stage there was no plan; the model was simply designed as I went along. It's quite a large hull, some 42-inches/170 mm long, with a beam of 13-inches/33 mm. Owing to its overall size, therefore, I anticipated that weight may be going to pose a problem. The biggest stumbling block would be the keel. This would have to be fairly hefty, and if fixed, would make the boat very heavy to transport. So, a removable keel was made from thick brass sheet, fitted with a keel bulb purchased from Cornwall Model Boats.

Not wishing to cut into the hull, I stuck two pieces of teak offcuts along the centre of the keel, one either side. The position of these was just a guess as I had no idea where the keel should actually be positioned. To enable some adjustment to be made, two pieces of brass angle were screwed to the teak strips, allowing the brass keel plate to fit between them. These were then drilled along their length with a series of holes, permitting the final position of the keel to be determined once the boat was complete. The keel itself would simply be held in position with a couple of split pins when at the pondside, thus avoiding having to carry an excessively heavy boat.

Next, the inner surfaces of the hull were coated with resin and fibreglass matt. Bearing in mind the age of the hull and the brittle nature



ABOVE LEFT: Endeavouring to get the mast vertical. The steel straight edge spans the boat. A large square is then used to adjust the mast accordingly. The adjustment is only in one plane. Front to back adjustment was carried out by eye when the dinghy was rigged. ABOVE RIGHT: The trial fitting of the plywood deck panels. The centre split line makes it easier to adjust and fit these. It's also a simple job to cut out the hatch holes for the battery and electronics. BELOW RIGHT: The rudder assembly in place. The rudder blade is held onto the shaft by a couple of split pins. This allows the rest of the assembly to be lifted out.

of the plywood, the fibreglass was deemed necessary to provide additional strength.

There must be an easy way of applying resin and matt but, if there is, to date I've yet to discover it. What I have established is that I loathe latex gloves. They stick to simply everything I touch! In this instance, while struggling to extricate them from a pot of resin I'd picked up, the pot tipped and out poured the contents. This then gravitated down to surface of my workbench, pooling around all of the tools and equipment in its path as it tsunami-ed across the surface. As resin sets within a few minutes, panic set in. The offending gloves were ripped off and a new ones fitted; of course, this didn't make any sense as the fresh pair stuck to everything as well. Grabbing paper towels to mop up the mess proved a bad idea, too, as these not only stuck to the gloves but also tore and quickly sunk into the glutinous mess on my work top. At this stage, the only solution I could come up with was to abandon ship and wait for the resin to set. Ultimately, the affected section of worktop had to be cut out and replaced. Blimey! It all seemed so easy when initially reading the instructions on the tin.

I'd previously ordered from Cornwall Model Boats two large heavy keel bulb weights for my Aeronaut *Bellisima* yacht. I'd purchased two just in case one wasn't heavy enough, but on arrival this fear had proved unfounded. So, one of them was bolted onto the brass keel plate I'd already made and looked about right, but only time would tell. Should it transpire that a second bulb would

“Blimey! It all seemed so easy when initially reading the instructions on the tin”

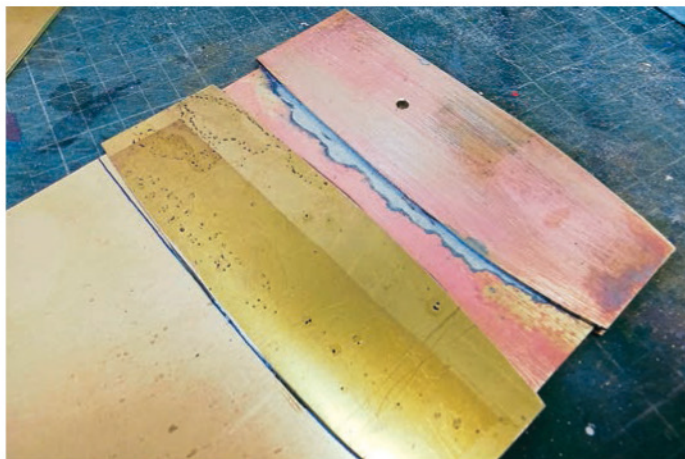
be required, provision was made for this to be easily fitted.

With the original damage to the hull repaired, and the propellor shaft hole filled, my attention shifted to the outer hull. The hull's original builder had made a superb job of this, and it took little sanding to create an ideal surface on which to begin painting. I always use Phoenix Enamels. I don't attempt any airbrushing as these paints can be very successfully brush painted and the finish is never disappointing. So, after a coat of grey primer, several coats of white and red enamel paint followed, allowing 24 hours between the application of each separate coat.

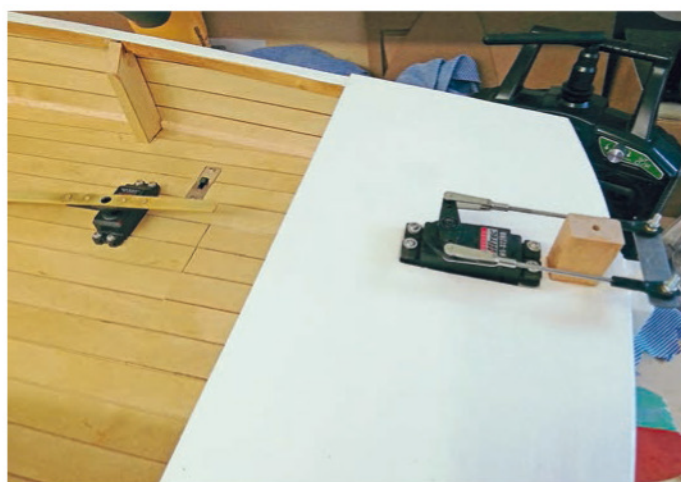
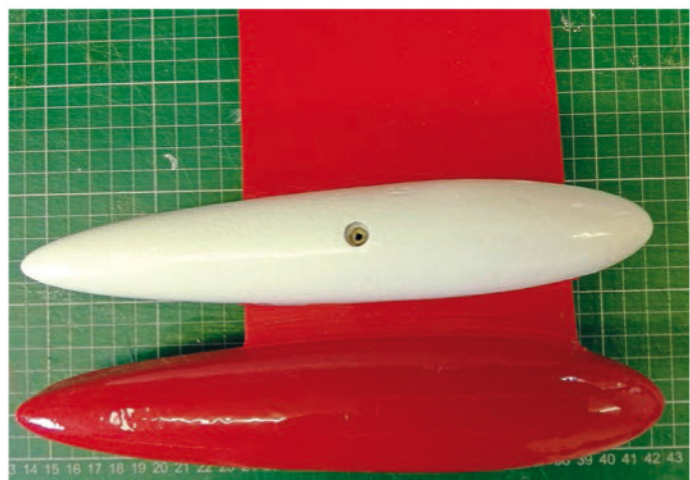
Once the paint finish was thoroughly dry, it was time to test the hull for leaks. I was fairly confident there wouldn't be any, and fortunately this proved to be the case.

The next stage was to cut out the deck, which I made from 2mm plywood. Initially, a card template was made; better to scrap a piece of card rather than expensive plywood. As can be seen in my photo, the deck panel is in two halves. This has the advantage of being able to locate and fit each half, and then make any adjustments along the centre cut line. It also means that any apertures in the deck can be easily cut from the centre.





ABOVE LEFT: The brass keel is 'thickened' at two points in order to accept the Aeronaut keel bulbs. Only the lower bulb was deemed necessary in the end. ABOVE RIGHT: One half of a keel bulb in place.



ABOVE LEFT: The finished keel. The white bulb is a spare should additional weight be required in future. ABOVE RIGHT: The steering and sail servos in place. The power on/off switch is also shown.

"In my opinion this invaluable piece of kit takes all the tedium out of things"

One of the few pieces of equipment I have is a band saw. In my opinion this invaluable piece of kit takes all the tedium out of things. For example, my deck panels were cut out and fitted in about 30 minutes. Using a fret saw, I'd probably still be cutting them out.

I always have difficulty getting a mast upright. Not so much fore and aft, but across the beam of the boat. As you can see from my photo, a steel straight edge was placed across the boat and a large square set up on this. Gently adjusting the mast against the edge of the square should ensure it being vertical, although whether it will be is another matter!

The deck could now be glued down, but I left access to the spaces below the decking purely for adding ballast, battery and electronics at a later point in the build.

The servos for the steering and adjustment of the sail are above deck level. As I wasn't sure how far the sail would need to move out when on a run, my sail servo was fitted with a long brass arm.

The next thing to consider was the deck and inner hull planking. In the end I cut strips of 1mm plywood and affixed them with superglue. A gap was left between each plank, and while I hadn't used plywood for planking before, the effect was quite effective.

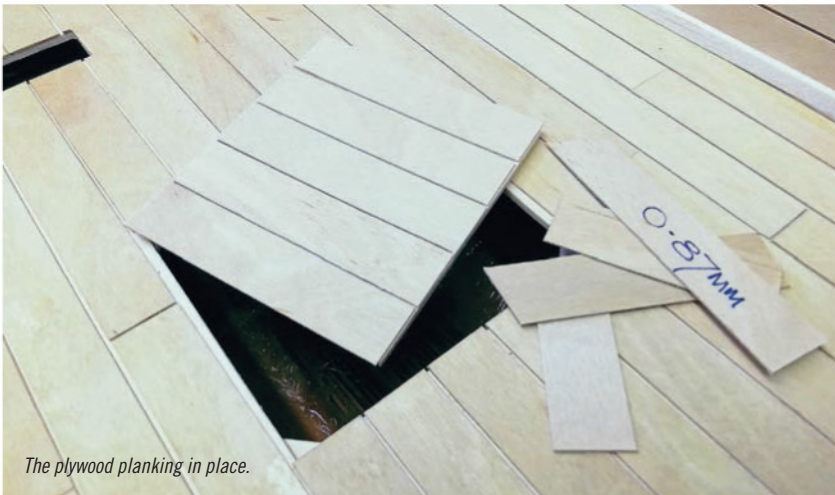


The hull was brush painted using Phoenix enamel paints. Brush painting saves an enormous amount of time masking off and cleaning up. The paint can be 'laid' on with the brush, giving a very durable finish.

Not exactly plain sailing

At the back of my mind, I was starting to think about the sail(s). While initially I'd only considered a spritsail, I had a nagging feeling I'd need a foresail to aid going about. Indeed, my main problem was going to be making the sails.

Hmm, tricky! My wife has an intense dislike for needlework of any description. Indeed, the all-singing, all-dancing sewing machine I'd so thoughtfully bought for her one Christmas many years had long since become nothing more than a decorative feature of the house. Now covered in dust,



The plywood planking in place.



The overall view of the plywood deck.

I knew I'd have to try and cajole her into to bring this machine out of retirement so she could knock me up some sails. After over 50 years of marriage, however, she's well attuned to resisting even my best attempts at a charm offensive. How, then, did I get her to commit to the task? Well, the deal we struck involved me committing to hours of 'community service' in the form of housework and allied services. The other proviso was that I would cut out the sails from some old sheets (new ones seemed to be out of the question) in readiness for her running up the seams on the outer edges. Never mind about getting the 'warp and weft' round the right way, this was any port in a storm! I set up the sewing machine on the table and carefully, and very creepily,

advised her all was set. Maybe a cup of tea would help to oil the wheels of industry? Oh, no. This, she informed me, would all be done her own sweet time. So, I disappeared off into the shed and, would you believe, within 10 minutes – not even enough time for a good long sulk – my wife appeared with the finished sails. All my grovelling had paid off. I am, however, still paying the heavy price for this service. So, excuse me – back shortly once I've done a bit of ironing...

Despite my dedication to household chores, I'd now reached the stage at which I was ready to rig my dinghy. My rigging was very basic (bearing in mind I was, and still am, a very busy boy). I used thin nylon picture chord for all the halyards, etc, and made up some simple brass cleats.

My spritsail, though, seemed to have a mind of its own. So, although far from complex in concept, it was a question of trial and error before it even vaguely resembled, well, a sail! To make life easier, I added a brail so it can now be folded up onto the mast, and, once the foresail is unhooked, the whole mast and sails can be removed from the boat.

Too much bunloaf?

I was almost there, but my dinghy still looked a bit empty without a crew. One of my fellow club members, Nigel, had kindly given me an 'Action Man' that appeared to be roughly the right scale. But... I've always imagined the children in *Swallows and Amazons* to be relatively genteel, and I've certainly never envisaged any of them sporting a sub machine gun, sticks of grenades and other warrior-like apparel. In view of this, I felt some minor alterations to Action Man's appearance may be beneficial. I can't quite believe I'm admitting this but, when I attempted to undress him not only could I not get his boots off, but his trousers refused to be pulled down any further than his knees. I did manage to cut his body armour, grenades,



ABOVE: Caught with his trousers down! Action Man's plastic upper body parts were coated with PVA adhesive and then string was wound round to give a positive key for the DAS clay. BELOW: All masked up ready for the next operation.



BELOW: The finished stern.





ABOVE: John's wife displaying her sewing skills in the 'sail loft'. RIGHT: Orphan fully rigged. While not perfect, the sails set reasonably well in virtually no breeze. RIGHT (INSET): This view illustrates the very simple rigging adopted for this dinghy.



ABOVE: Action Man not looking at his best and waiting for the bands of clay to be added at his collar and cuffs.

BELOW: Coated with grey primer in readiness for the final coats of acrylic paint. RIGHT: Hello sailor!



etc, off using a craft knife, but that still left me with a half-naked 'hunk' who didn't exactly match the brief.

I decided, therefore, to kit him out in a traditional woolly sweater and hat. However, asking my wife to get the knitting needles out would have been a bridge too far, even for Action Man, and I certainly wasn't on a suicide mission. So, I resorted to DAS modelling clay. Having first protected Action Man's resistant to removal combat trousers against soiling with clay, I coated his upper body with PVA adhesive and then wrapped (a process rather like embalming) the shiny plastic with string. This would help key the clay to his torso. I then began pressing the clay onto him. This, however, is such a surprisingly satisfying job that it's easy to get carried away and, as I allowed him to get bigger and bigger, poor old Action Man quickly started to look less buff and more Jabba the Hut! Working with dampened fingers, I was gradually able to smooth down the clay to the point where, if you closed your eyes, Action Man simply appeared to be clad in a somewhat inflated sweater. The woolly hat was formed in the same way – although this time, somewhat more cautiously.

After drying overnight, my figure was ready to be painted, using blue acrylic for his sweater and dark green acrylic for his hat. With his trousers pulled up and a belt made from insulation tape, he was at last ready to man the dinghy. From a distance of about 100 yards, Action Man now looks quite realistic in this new guise – although closer up, it has to be said, he looks more like a new 'Demobbed and, oh dear, someone's let themselves go' version of his former self!



LEFT: The sails from the opposite side.

Wild ~~Cat~~ Dog Island

With Orphan finally ready for her maiden voyage, off we went to the pond – nice and early in the morning to avoid the scrutiny of others. I was, after all, still very sceptical she'd float, let alone sail. At pondside, the heavy keel was fitted in moments; this being held in place with a couple of split pins. With just a gentle breeze prevailing as she was launched, to my great surprise and delight she got under way. Now, I've skippered many of our company's sea going racing yachts in the past, but this model dinghy proved is the most difficult and challenging vessel I've ever had the experience of sailing. She demands total concentration and isn't at all forgiving. But she is great fun! So, standing there that day, completely rooted to the spot as I focused all my attention on her, I failed to notice, until I felt a warm sensation creeping down my calf, the mutt that had rocked up and decided to cock his leg up against mine. What is it about me that seems to attract weirdos of all species? Bizarre as it may sound, though, I was too elated to be particularly upset by this. After all, the Swallows and the Amazons always took the family dogs onboard their boats with them, so perhaps Arthur Ransome was looking down and had decided the scene demanded a little extra, albeit slightly warped, touch of realism/humour?

Stinking wet leg aside (at least, unlike Action Man, my trousers could be removed and put straight in the wash), Orphan's first outing had proved a great success. Happy days! ●

BELOW: For ease of carrying, the sails are brailed around the mast. Ready to go!



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George Edward Connery launches his stunning scratch built 1:12 scale Fisher 34. For more on this, and lots of other inspirational builds, turn to the Readers Models section of this issue.



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Robbe Type XXI conversion

Alan Poole explains how the original kit, designed for the build of a dynamic diving submarine, can be modified into a static diving version that performs 'just like the real thing'...

In 2004, Robbe, the well-respected German model manufacturer, brought out its Type XXI U-boat kit, which featured the same dynamic dive system used for the previous submarine in its range, the U47.

For those you unfamiliar with the basics of working submarine models, diving systems can be either dynamic or static. The former is built to be positively buoyant and will float even if its ballast tank, if it has one, becomes completely flooded. It therefore relies on forward motion and correctly positioned planes to drive it beneath the surface (rather like an aeroplane needs to gather speed along a runway before it can take to the sky). Once submerged, should that forward motion cease the model will, usually, surface again. Static diving, which, as the name suggests, permits the model to dive without any forward motion, is achieved by constructing a vessel where the buoyancy can be changed by letting water into its ballast tanks.

I built this model virtually straight out of the box on release and reviewed it for

Marine Modelling International magazine back in September 2005. I found it to be a very accurate model and, when treated to a realistic weathered finish, it provided me with an impressive scale representation of the real Type XXI 'Grey Wolf'. The dynamic diving system worked well, too, although naturally had its limitations.

Having completed the model, though, other than being occasionally displayed at shows, for many years it simply languished on a shelf – until, that is, it was spotted by Martin Prior, a friend and fellow club member. He liked the look of the Type 21 so much he decided he had to build one himself. By this point, Robbe had long since ceased production, so the kit was no longer available to purchase new; fortunately, however, he was able to pick up a second-hand example via an online auction site. Being as intrigued by model submarines as I am, Martin had built several before, so he was more than *au fait* with what was required to make one work and operate well. As an additional challenge, therefore, he chose to adapt his build of Robbe's kit to incorporate a static dive system, which is, of course, would be much more user friendly and realistic.

On completion his conversion it was brought down to the Dover Model Boat Association's local lake at Kearsney Abbey in Dover, and I was asked to take some underwater shots of it for him. Photography over, I was then given the opportunity to take control; what a difference from mine, the boat was trimmed beautifully, and she ran so well

that I decided then and there I simply had to modify my own XXI, aided, of course, by Martin. For those of you interested in doing the same, what follows, then, is a summary how this can be successfully achieved...

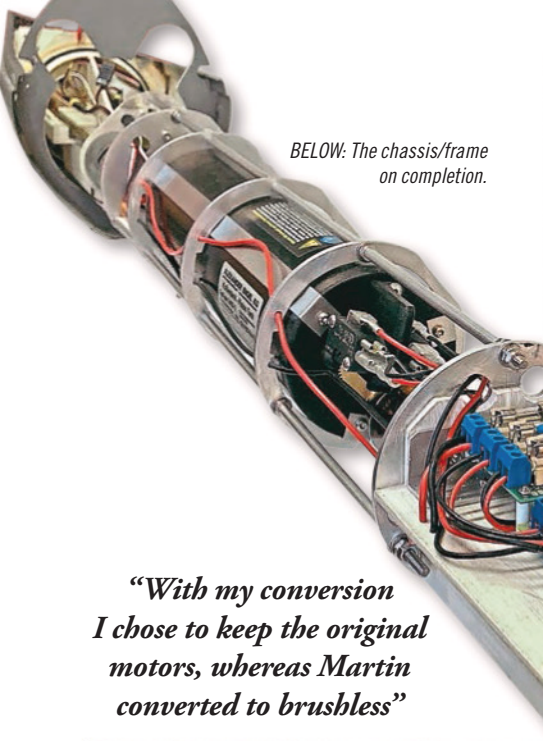
Let's get down to business

Those familiar with the Robbe system will know that the XXI is split into two sections. The rear section comprises a chassis/frame made from 3mm ABS plastic material, which has all the workings on it. The conversion requires a static dive tank to be added to this (I used an Engel piston tank, along with all its associated electronics), so the plastic central frame has to be cut away and replaced with the new unit.

I used an EA825 Engel tank, as this is the maximum size that will fit into the original tube included in the kit. Unless you're prepared to rip the whole model apart, this tube must be used, as the frames for the boat are constructed on this tube and everything else is built around it. A new chassis centre section needs to be built in order to install the tank; this is formed from aluminium plates and rings bolted together with 4mm stainless steel studding, using aluminium tubes as spacers. The new tank can then be screwed centrally to one of the solid aluminium end plates by utilising the three strap fixing screw holes in the tank end plate.

The tank needs positioning centrally in the new chassis, directly under the attack periscope position; this ensures that the boat will balance correctly when the tank





BELOW: The chassis/frame on completion.

“With my conversion I chose to keep the original motors, whereas Martin converted to brushless”

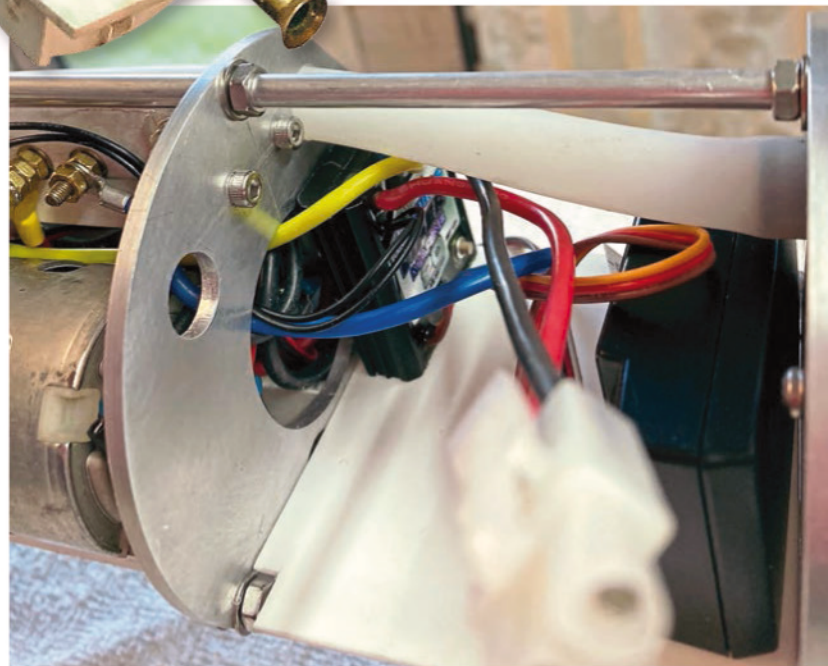


The original basic chassis/frame; this needs to be converted by cutting out the ABS centre section and replacing it with the aluminium frame and dive tank.



ABOVE: The aluminium discs that can be seen here cut from 3mm aluminium sheet, and then trued up on the lathe. These discs can be cut for you by Lazermaster (www.lazermaster.co.uk) if you're unable to tackle the task yourself. Note the 4mm studding and aluminium tubes that form the spacers between the aluminium discs.

RIGHT: The dive tank mounted to the aluminium disc in front of the receiver/speed controller and leveller area.



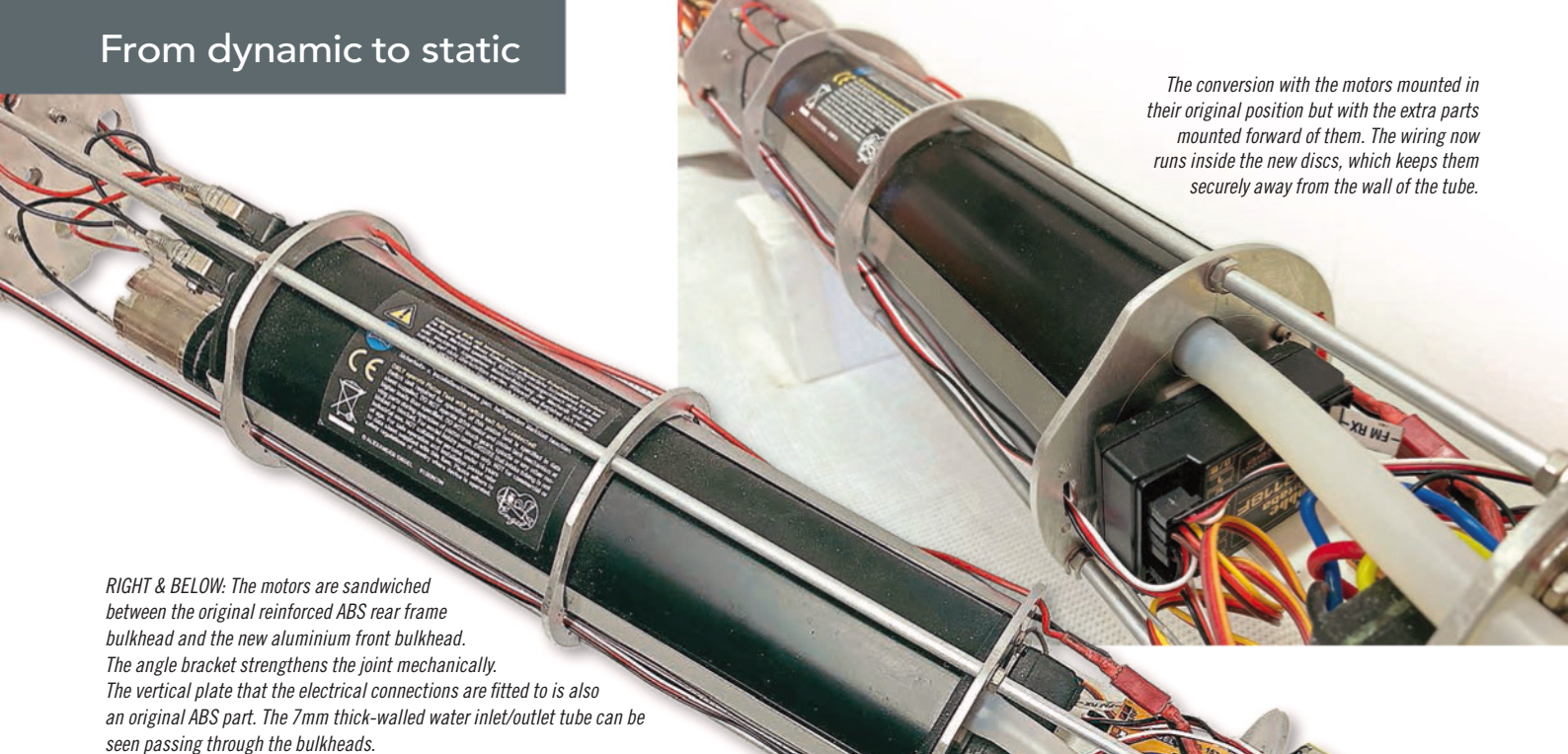
is full. The spacers of aluminium tube over the 4mm studding locate the tank position and maintain the spaces for the receiver, speed controller and other items, such as the motors. Forward of the piston tank, a space is required for the motor that moves the piston and all its associated microswitches. Another solid aluminium frame must be bolted to the remaining forward original part of the chassis frame, which, again, needs to be constructed from 3mm thick ABS plastic. All the 3mm aluminium frames and rings must be accurately cut to size and drilled to accept the 4mm studding. Various other openings and holes must also be cut to allow all the wiring to be fitted. Because there's very

little clearance between the frames and the main tube, everything must be kept inside the frames. The original ABS chassis frame has a U-shaped section that runs along the bottom, which is located in two guides inside the tubes (this keeps the chassis square and helped to align the draw bolt that pulls the chassis tight to the rear sealing O ring). The aluminium frames also need to be cut to allow them to run over the guides that are retained in this conversion. You will also see that the new frames need chamfering to allow them to pass the two extension leads from the forward dive planes that enter the tube at the rear. The studding with all the spacers is then assembled and bolted together with stainless

steel nuts and washers. A double locknut on the ends of the studding ensures all is solid and accurately aligned.

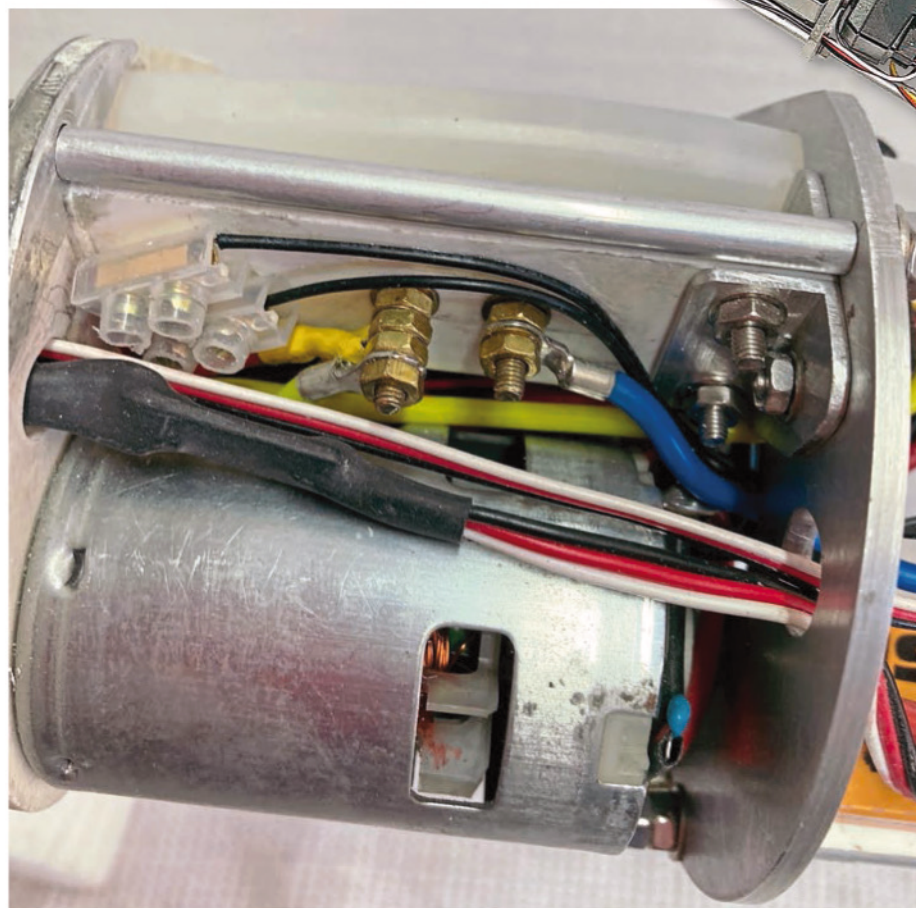
The new rear section is then slid into the tube and the draw bolt screwed up to test the fit of the new parts. Once this test has been successfully completed, the rear section can be removed, and you can start fitting the other components.

For my conversion I chose to keep the original motors, whereas Martin converted to brushless. This meant the space between the rear bulkhead and the tank was, in Martin's boat, a little bigger. There was, however, enough room to fit all the components into the smaller space on my boat.



The conversion with the motors mounted in their original position but with the extra parts mounted forward of them. The wiring now runs inside the new discs, which keeps them securely away from the wall of the tube.

RIGHT & BELOW: The motors are sandwiched between the original reinforced ABS rear frame bulkhead and the new aluminium front bulkhead. The angle bracket strengthens the joint mechanically. The vertical plate that the electrical connections are fitted to is also an original ABS part. The 7mm thick-walled water inlet/outlet tube can be seen passing through the bulkheads.



One other modification I made was to add a seal to the prop shaft to make certain the shaft was airtight. This was a simple job. I used an oil seal contained in a brass tube, which I fitted over the original outer tube. When running the boat as a dynamic diver I'd never had a problem with the shafts as supplied, but with extra pressure that would be created by the piston tank, this extra seal would serve as an added precaution.

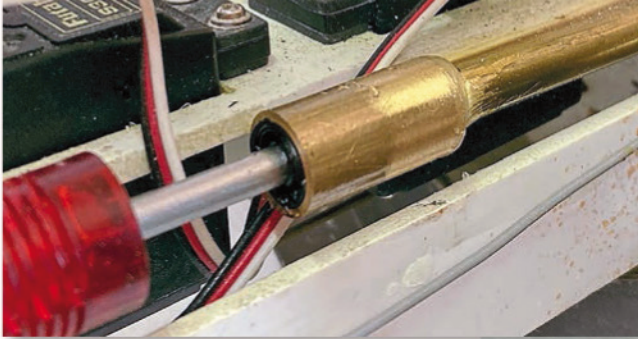
The tank also requires a water inlet and outlet. For this you will require a flexible thick-walled 7mm tube, which needs to be

routed through the bulkheads and past the servos controlling the rear vanes and rudder, and then out through the rear tube end plate. A brass tube needs to be glued into the rear end plate; I used Stablit Express here, which is a strong glue recommended for bonding the ABS plastic in the kit, and for bonding brass to plastic.

The brass outlet is then connected to the flexible tube.

The rear hull cover, which on the original screwed to the lower rear section of the hull, can be secured by using strong magnets





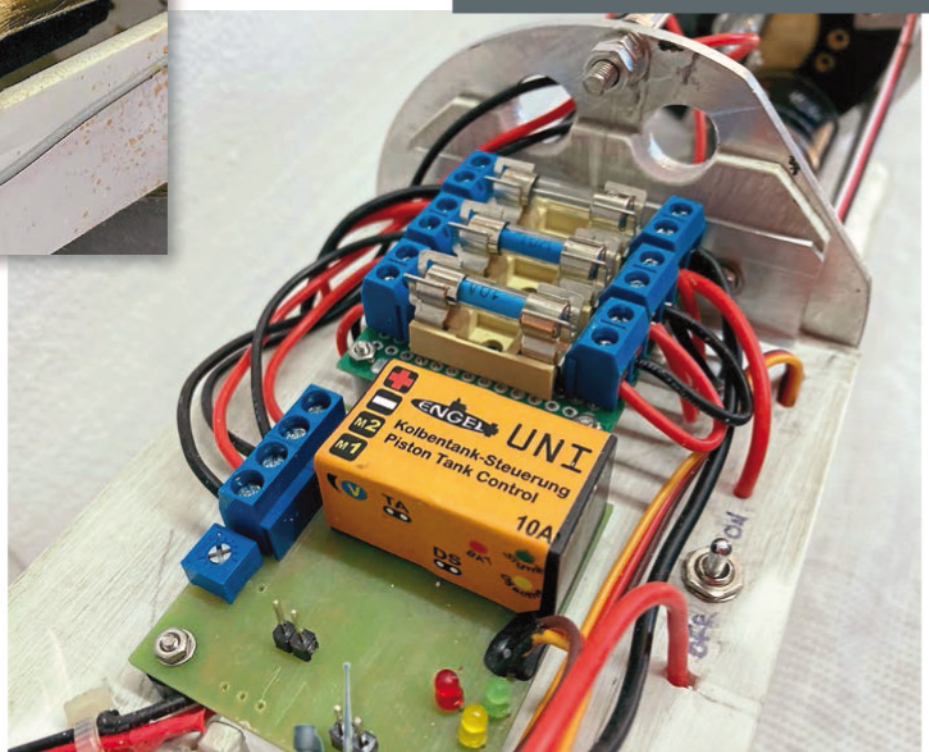
ABOVE: Note the oil seal that forms the prop shaft pressure seal. As described in the text, the oil seal needs to be fitted into a brass tube, which is then slid over the prop shaft and sealed with Stablit Express glue.

(doing away with the need for screws). This simple hack allows the rear hull part to simply lock on and hold invisibly.

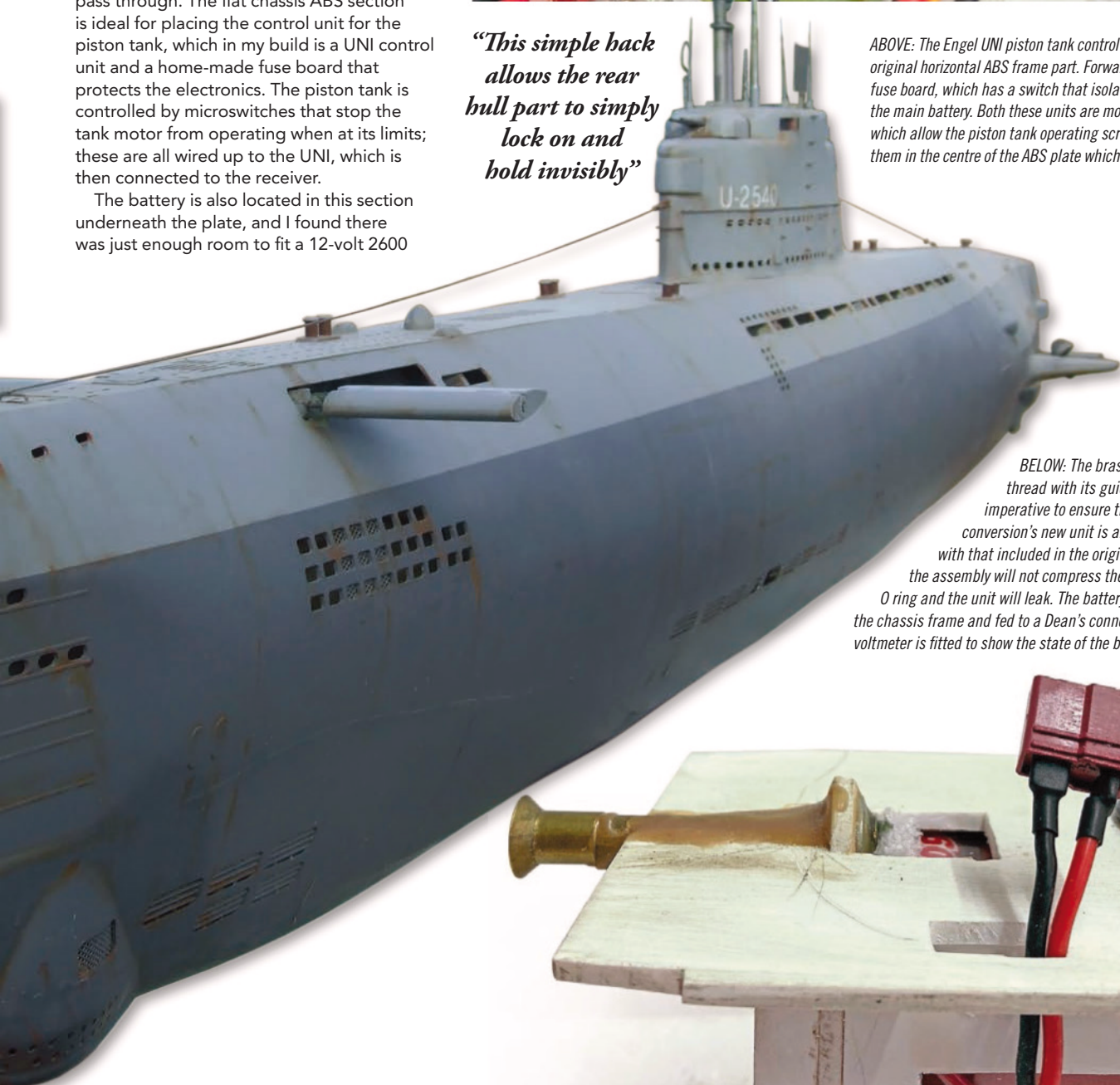
Moving to the fore ends, the piston tank, when in operation, has an operating screw thread that moves forward of the tank in a straight line for 260mm. The original ABS frame, therefore, needs a channel cutting in it to allow this to be accommodated. The aluminium front plate also needs to have a hole drilled centrally for the screw thread to pass through. The flat chassis ABS section is ideal for placing the control unit for the piston tank, which in my build is a UNI control unit and a home-made fuse board that protects the electronics. The piston tank is controlled by microswitches that stop the tank motor from operating when at its limits; these are all wired up to the UNI, which is then connected to the receiver.

The battery is also located in this section underneath the plate, and I found there was just enough room to fit a 12-volt 2600

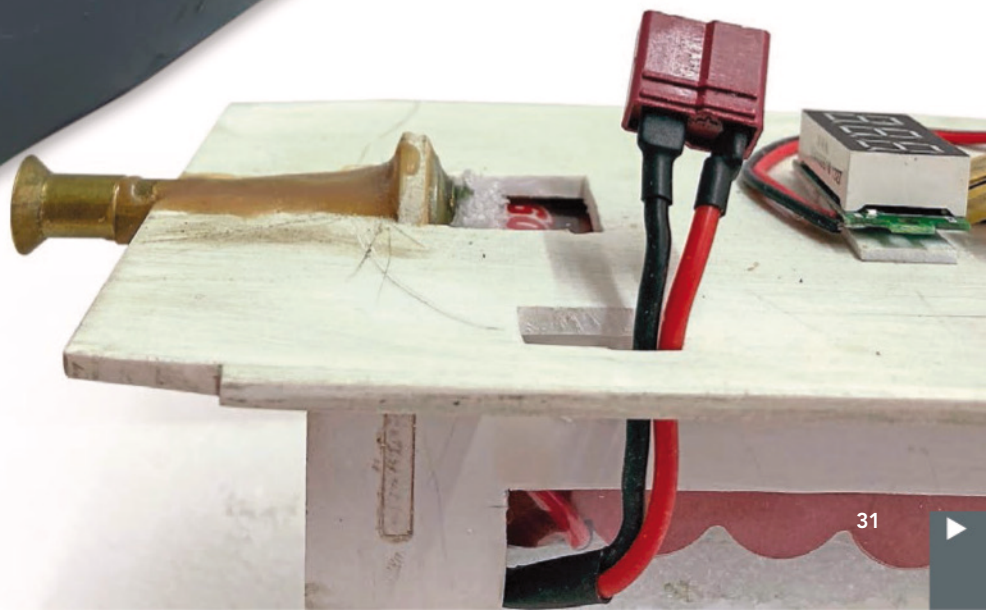
“This simple hack allows the rear hull part to simply lock on and hold invisibly”



ABOVE: The Engel UNI piston tank control unit fitted to the original horizontal ABS frame part. Forward of this is the fuse board, which has a switch that isolates the board from the main battery. Both these units are mounted on spacers which allow the piston tank operating screw to run under them in the centre of the ABS plate which clears the units.



BELOW: The brass draw bolt thread with its guide. It is imperative to ensure the length of the conversion's new unit is an exact match with that included in the original kit, otherwise the assembly will not compress the rear sealing O ring and the unit will leak. The battery is fitted under the chassis frame and fed to a Dean's connector. A small voltmeter is fitted to show the state of the battery voltage.





Alan's sub successfully underway and being put through her paces.

milliamp NiMH battery. This smallish battery is sufficient to power the dive tank and motors for a reasonable time, although a larger battery would be preferable. After ensuring all is working, the rear section is inserted into the tube and sealed by tightening the draw bolt assembly to make a good seal. You can now switch the model on. The on/off switch for the whole model is mounted internally and can be operated by a brass rod that passes through a bellows to the rear of the boat. A simple pull push action switches the boat on and off.

At this point my model was placed into Martin's test tank and checked for balance. The ballast tank was filled and down she went. Some lead shot was required in various places, and some foam need to be added, to obtain correct trim. Having attended to this, seeing the model operating statically, and correctly, was both rewarding and exciting. The next step, of course, would be to test her at our local lake.

"I tend to find that if there are people around, as soon as a model submarine is placed in the water, a crowd gathers..."

Finally getting underway

I chose a quiet day, with no witnesses present, to test the boat. Trying to trim a model with questions being asked is slightly off putting. I tend to find that if there are people around, as soon as a model submarine is placed in the water, a crowd gathers. Someone will usually then pipe up: "Does it go under the water?", to which my only answer can be, "I certainly hope so!"

With the boat in the water, she filled, settled and started to wet out. You'll find as this wetting out happens, the trim will alter slightly, and some adjustments may be required.

Once happy with my mine, the motors were operated, and the sub moved out into the lake. I was very pleased with the surface trim, which was almost on the waterline; as a static diver she needed ballasting down to decks awash to allow the dive planes to be effective. Operation of the dive tank saw her submerge down to about halfway up the conning tower. The trim remained steady, and she remained balanced fore and aft. Forward on the motors and down dive planes saw her dive further, but not fully, so she was recovered, and more ballast added. After a couple of smaller ballast adjustments, she submerged completely and ran level under the water. Success!

My automatic level controller is an Engel SPC2 unit; this is adjustable for sensitivity and set to minimum. This setting only moves the planes a few degrees up or down, which is all that's needed to maintain level running. The forward hydroplanes are quite small on a Type XXI as they need to retract into the narrow hull when not in use, but despite

Side by side, the two models show few visible differences, but while Alan chose to retain the motors used for the original dynamic diving XXI in his conversion, Martin choose to install brushless motors.





their diminutive size they are very effective. In the dynamic dive version of this model, I had added extra surface area to the original forward hydroplanes by pinning sheaths to them, thus making them work more efficiently – something not needed on my conversion.

U-Boat numbers

Designed and developed during World War II, the technologically advanced for its time Type XXI could have posed a very serious threat to the Allies. As it happened, while 119 Type XXI were commissioned between 1943 and 1945, only four made it into active duty.

My XXI, and the subject of this article, U-2540, was scuttled on May 4, 1945, after an air attack in the Baltic, off Flensburg. She was raised in 1957, modernised and used again by the then newly forming German Bundesmarine. Now preserved in Bremerhaven, she's been converted back to, and is exhibited in, her original wartime configuration.

The sub Martin has modelled, U-3523, was attacked and depth charged by a B24 Liberator bomber on May 6, 1945, in the Skagerrak, while reputedly attempting to escape with gold bullion aboard. Her entire crew (58 men) perished. She now lies at the bottom of the ocean under 123 metres of water.

Doubling down

On a happier note, the two model XXIs met up for a sail together recently. This was the first time they'd been in the water together. You'll see from the photos we shot to mark the occasion that they're almost identical, with only very minor differences visible. I can tell you, though, that the brushless motors in Martin's boat give much better duration and, as a consequence, longer running time. The UNI dive controller senses the lower voltage in mine as the model nears the end of the battery capacity and refuses to let her dive for that reason – a clever little

safety feature. I've decided to keep the original motors and just change the battery more often to keep my now static diving XXI operational.

To sum up, this has proved a very rewarding conversion. I thoroughly enjoyed the challenge and, aided by Martin, I now have my Type XXI working much more realistically. This, therefore, is a project I can highly recommend. It's well worth the effort, as it will allow your model to operate 'just like the real thing'. ●

Required for this conversion

Robbe (Robbe Modellsport GmbH & Co. KG)
Type XXI kit

Engel modellbau.eu

Dive tank EA825-12V;
Controller UNI 12V;
Level unit SPC2

Component Shop

12V 2600mah AA compact NiMH battery, with appropriate connector;
Silicone wire;
Stainless steel studding;
Nuts and washers

K&S Metals

When replacing the existing ABS bulkheads, you will need:
3 x stainless steel M4 studding, 1000 mm;
3 x aluminium washer discs, 94mm OD (Outside Diameter) x 3mm thick;
2 x aluminium washer discs, 94mm OD 78 mm ID (Inside Diameter) x 3mm thick

Lazermaster.co.uk

Laser cutting of aluminium discs (optional)

Simply Bearings

2 x 4mm ID 9mm OD 3mm thick oil seas

Humbrol

Enamel paints





Dodge-em? Not likely!

Buckle up... **Ashley Needham** is about to steer you through a build that will make bumping into fellow enthusiasts even more fun than ever

I'm pretty sure this article will raise a few eyebrows, but I'm not about to make any excuses for what follows. Designed for easy mass production by me and my fellow Bushy Park boaters, this a build aimed at providing fun, fun, and yet more fun – not just for modellers but for the enthusiastic onlookers who gather round the jetties/ponds/lakes/etc on a Sunday morning (pandemics permitting, of course).

You all know what a Bumper Car, or 'Dodgem', is; no doubt most of you will have been on one at some time or other. The original fairground concept was that these cars were supposed to refrain from contact while being driven around a track, hence the term 'Dodgem', but where's the fun in that, eh? Not surprisingly, then, they soon became known as 'Bumper Cars'.

This article takes the form of a set of instructions that will allow you build your very own floating bumper car, as, come on, who wouldn't want to? And, yes, I know there are 'bumper car boats', and even kits for them, already out there, but, by and large, we're talking just a rubber ring with a 'boat' in the

centre; the difference with ours is that they actually look like proper dodgems!

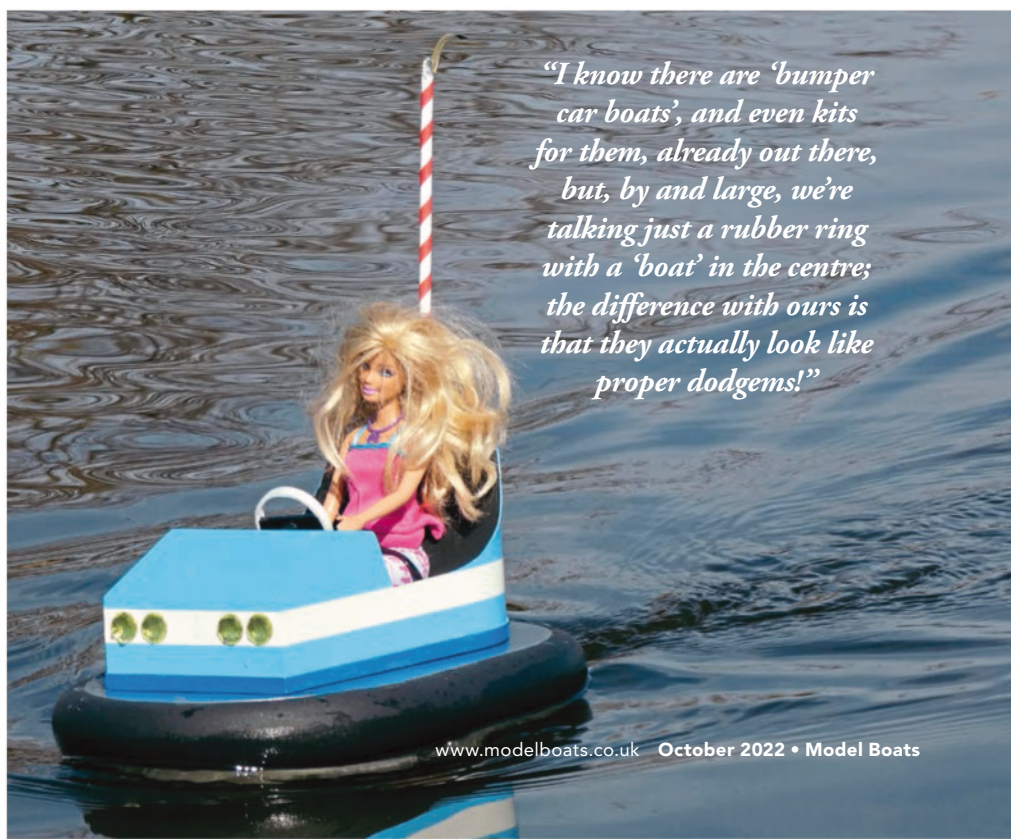
The design has been devised to make this project as cheap and easy as possible, with it being, for the most part, constructed from 4mm ply, a stock item found in almost all wood yards and builders' merchants. There are no compound curves, and the top and bottom shapes can be cut from a 300mm (12-inch) length of ply, maximising the utility of a 600mm x 1200mm plank of ply (a common size).

Hello Barbie, let's go party...

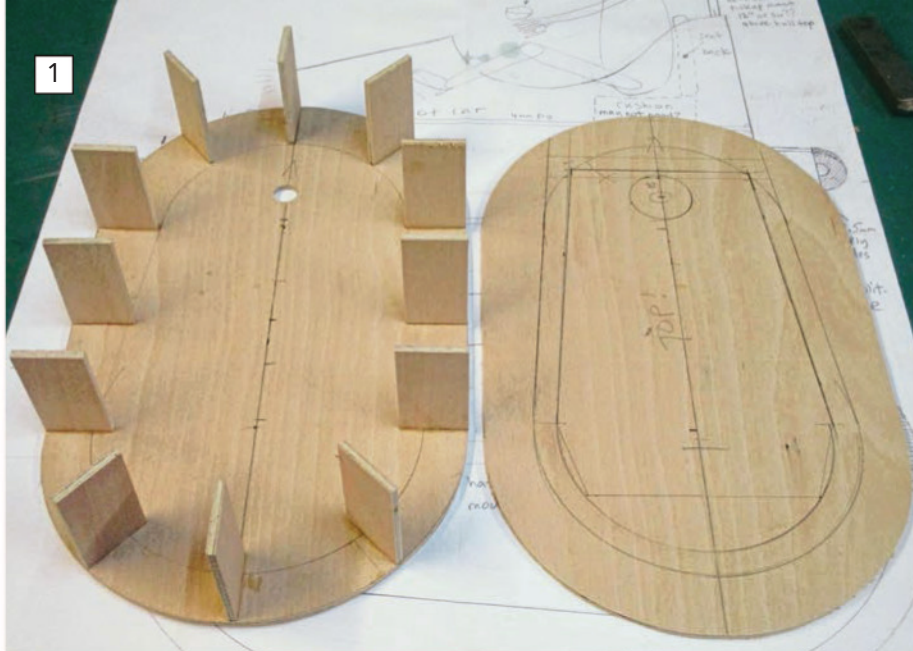
I've chosen a Barbie doll as my suggested driver, as she's light (an Action Man is much heavier), cheap and easy to get your hands on. Brand new Barbies are not particularly expensive but, to keep costs down, it shouldn't be too hard to find a second-hand bumper babe. You could, of course, opt for her boyfriend, Ken, but, while also not too costly new, you'll be far less likely to find him in your local charity shop. Alternatively, there are, of course, lots of other similarly sized (11-12 inch) size dolls out there (more on this later).

Get building, and give your mates a nudge

For a mass build, commonality of design is usually paramount; in this case, however, that really only extends to the actual hull and drive system, as we (i.e., the motley crew at Bushy Park) each wanted to be able to do our own thing when it came to the actual car body. But anyone building one of these who sticks to the hull design provided will be able to interact with the ones built by his/her fellow modellers, safe in the knowledge that they will all perform in the same way, despite any difference in car-top style.



"I know there are 'bumper car boats', and even kits for them, already out there, but, by and large, we're talking just a rubber ring with a 'boat' in the centre; the difference with ours is that they actually look like proper dodgems!"



ABOVE: Note the drawn on top and bottom ply note lines for the outer body shape and inner access hole.

After having tested the initial dodgem, I built a second one, using the plan as is (and not making it up as I went along, as I did first time around!), so you'll find I refer to this as '2nd hull', or similar, in the forthcoming instructions.

I am going to assume anyone tackling this project knows roughly what they are doing, so I'm not going to keep on saying 'accurately' all the time, and the word 'cut' will feature prominently!

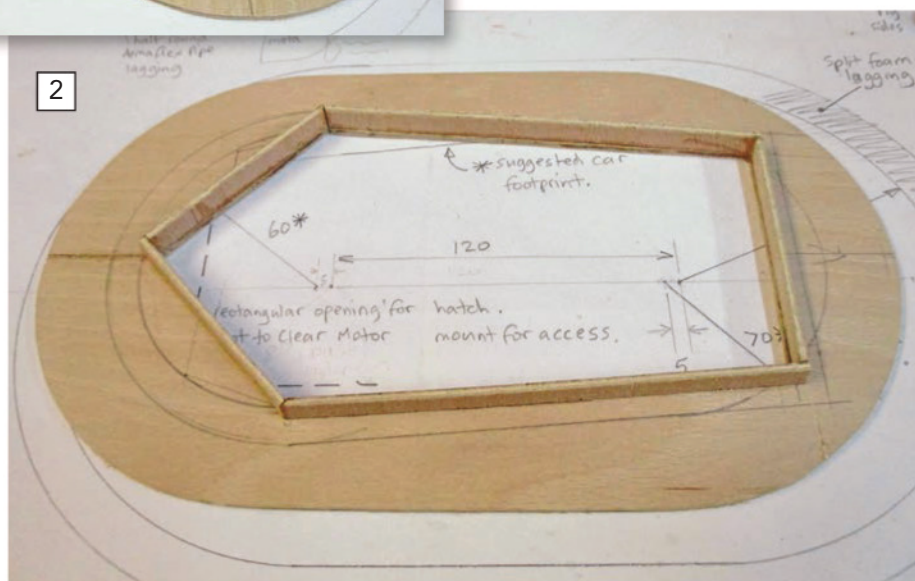
There is, apart from the car body template, no need to have a full-size plan to work from, as the body ovals can be drawn straight onto your ply using a ruler and compass on a pre-drawn straight line (the centreline). Similarly, there's no specific shape for the hull side strip covering, and the body opening with combing can be 'freehand' as it's not going to be on view.

This a build of two parts, and creating both the hull and the car is as easy as it gets!

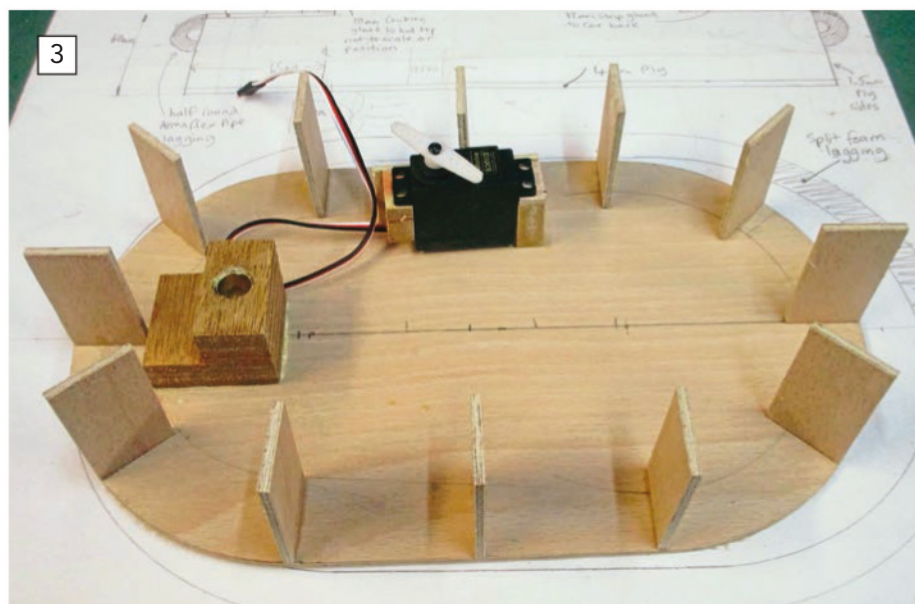
Constructing the hull

The hull consists of two identical ovals of 4mm ply (see **Photo 1**) – one with an opening in it for access (see **Photo 2**) – spaced out to an overall 60mm depth by the use of 52mm high by 25mm wide spacers, which you glue around the bottom outer edge, using superglue if you can't wait or PVA if you can. You'll need to drill a ½-inch (12.7mm) hole for the motor tube pivot (assuming you use the ½-inch tube specified; if not, drill to your tube size) in the base at the position indicated. You then glue a pre-drilled wood block inside to support the motor mount tube outer, making sure the holes are aligned properly. You may want to do this before sticking the top on! However, as the block will have a wooden pulley on top of it, the top of your block needs to be about 5mm lower than the level of your servo arm, so a bit of measuring with regards your servo height needs to be carried out first.

The top access opening must take into account the shape and size of your car body and the need to accommodate both the inner combing and the outer combing on the car floor underside, so you'll have to design this first and then cut the hole, which will need to be at least 10mm smaller than your car body.

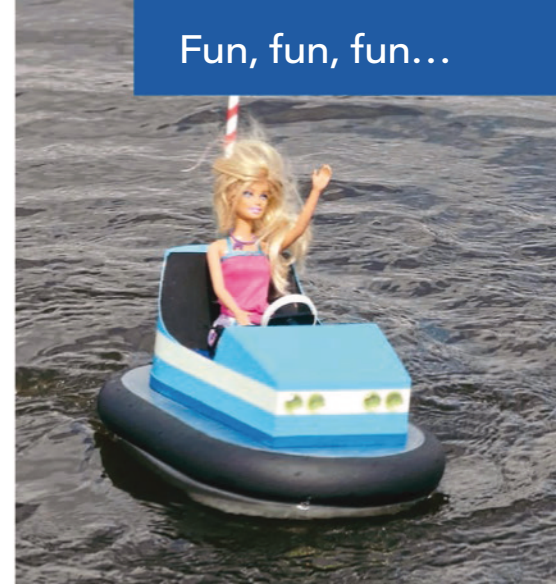


ABOVE: The top with access cut-out note inner combing inside the body outer line. BELOW: The 52mm tall play spacers glued on.



The spacers to distance top and bottom hull pieces from 4mm ply don't need to be accurately spaced, but they do need to be upright and flush with the outer edge. I used only eight on the 2nd hull build (see **Photo 3**).

Once dry, stick the hollowed-out oval of ply on top making sure it's in the right place and not wonky with regards to the bottom!



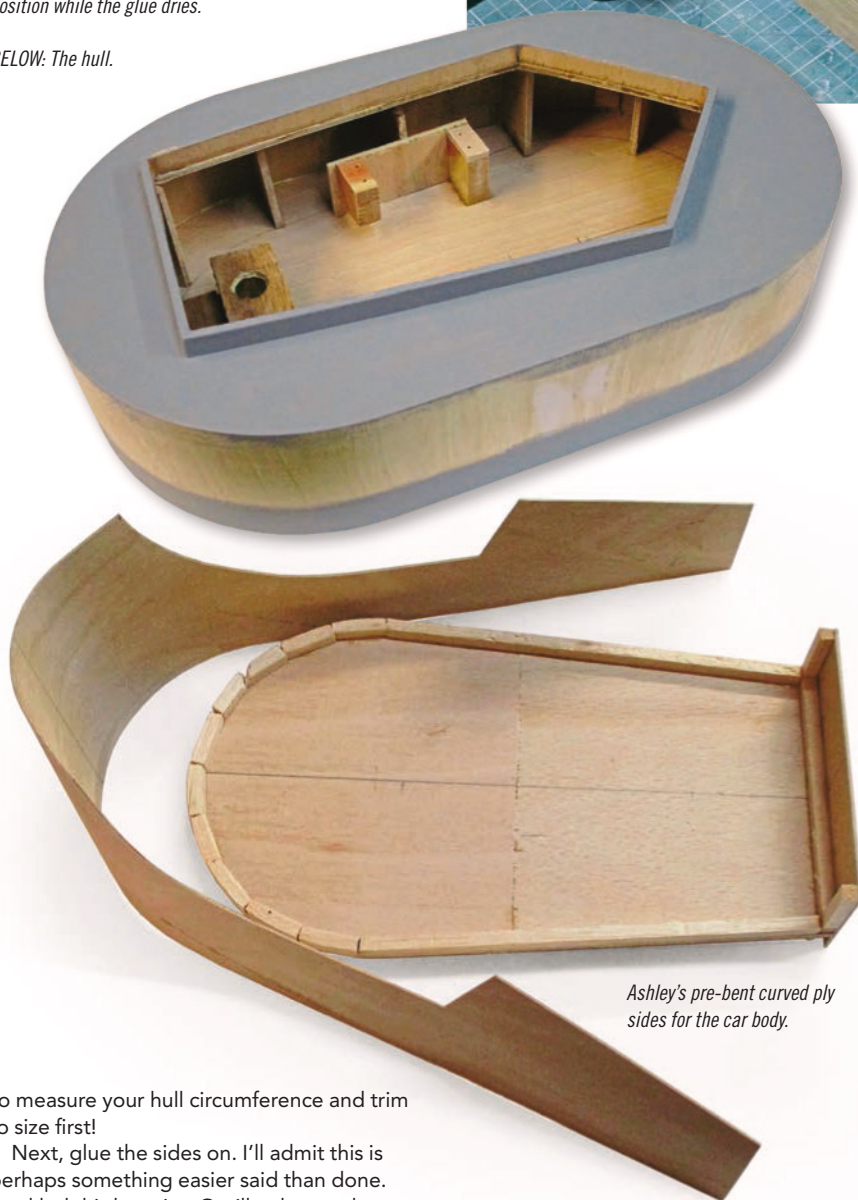
Fun, fun, fun...

This should be very easy if your support squares are exactly touching the outer edge of the base ply. Cut several strips of 1.5mm ply (anything from 0.8mm to 2mm will do) across the grain, 62mm high, and join these together using strips of ply set on what will be the inner face, leaving a 5mm clearance top and bottom. This wraps round the hull,



RIGHT: Clamping the thin ply sides to keep them in position while the glue dries.

BELOW: The hull.



Ashley's pre-bent curved ply sides for the car body.

so measure your hull circumference and trim to size first!

Next, glue the sides on. I'll admit this is perhaps something easier said than done. I tackled this by using Gorilla glue on the edges of the frame and gluing the first end of the strip onto one of the vertical support spacers using superglue, thus stopping it moving while the rest were wrapped around the body and held tight with two long clamps (see **Photo 4**)—although weights, tape and rubber bands will suffice. An additional thickener on the beginning upright spacer will help to provide a decent amount of wood to glue the ends to. Cutting a perfect curve is difficult, but as long as the semicircle cuts that for the body tops and bottoms are not

too bad, the thin ply will wrap round and form a nice smooth curve, with any gaps being self-filled by the expanding foaming Gorilla glue.

Now, trim the top and sand flat; this, of course, is why the sides are cut at 62mm and not 60mm—to give you the extra to sand nicely.

Next cut some 10mm deep strips of 4mm ply and glue around your top opening, making sure they're upright at 90-degrees to the top by using a set square, or whatever;

this will be the combing that the car body will sit upon (see **Photo 5**). Naturally, the shape for this will depend on your car body.

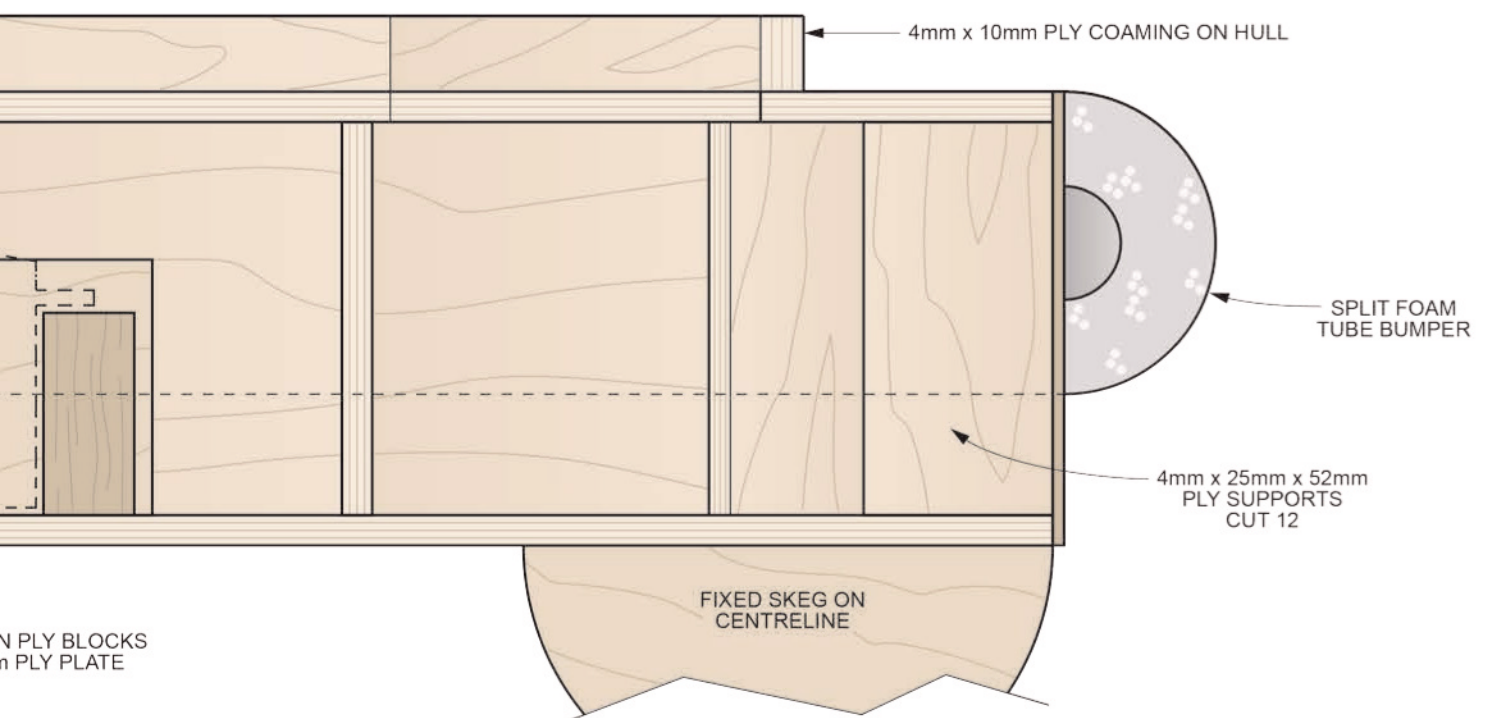
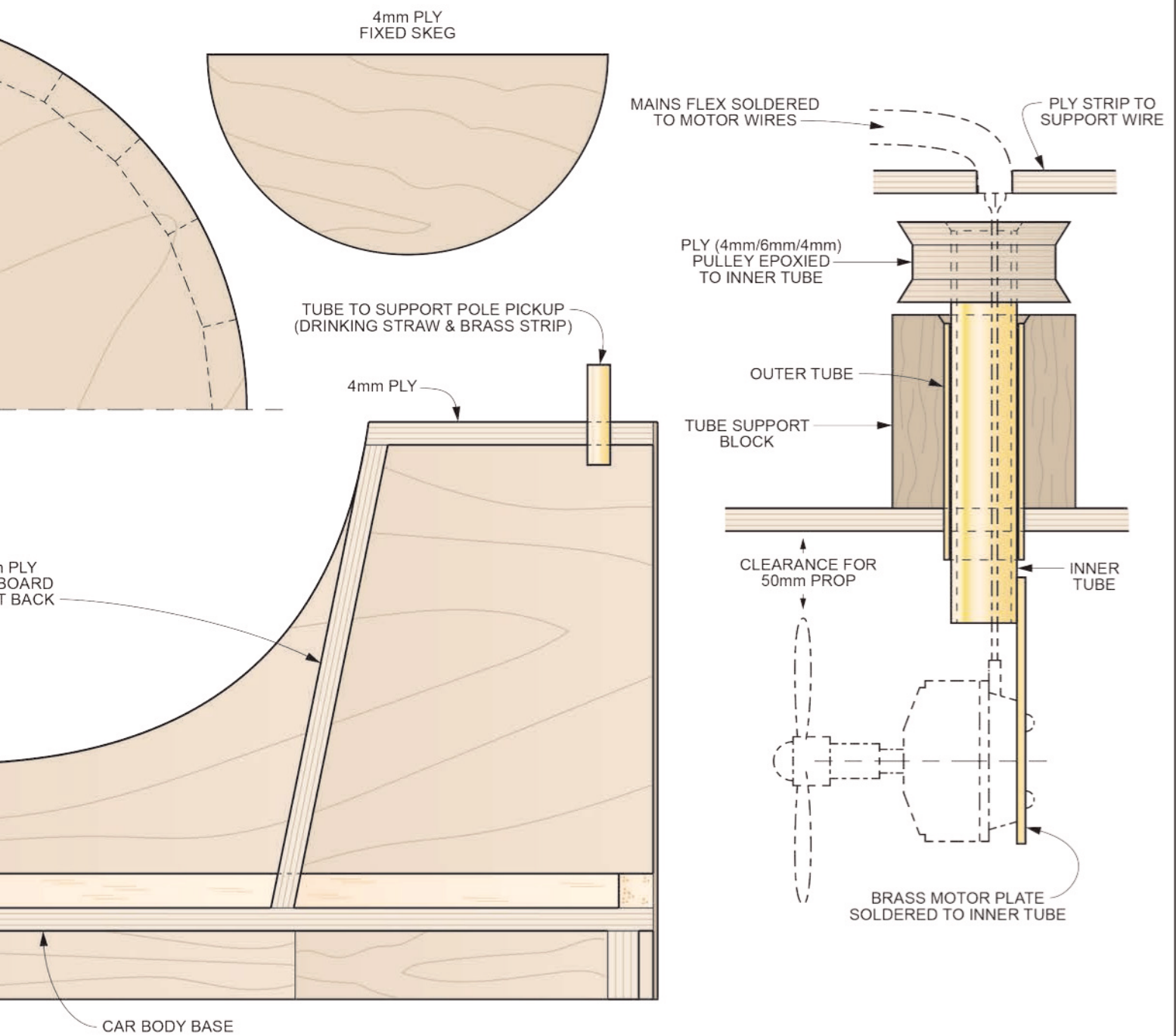
If using my drawing, straight strips will do. Note the 'v' shape on mine, which minimised the number of strips I had to use! Bearing in mind this won't be seen, as it will be covered by the body, basically, any shape will do. The final part of the hull build will be to fit the fixed skeg (a simple bit of 4mm ply will be fine here) underneath at the rear and on the centreline.

Car body

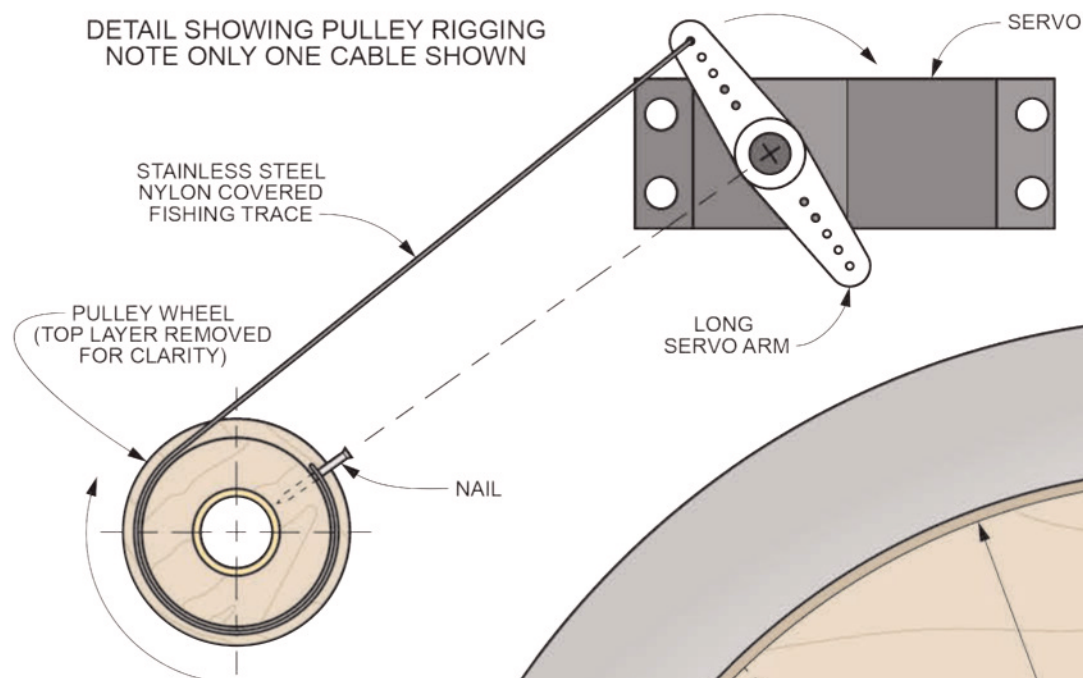
I've included a template for a basic car body, as seen on the prototype, here. It's very simple and no doubt you'll want to make your own, and better, example. My template works well to provide 'the look' and as long as your design fits roughly over the oval shape on the plan you should be OK.

I suggest leaving the car base mounted on the hull while you perform the various gluing operations to ensure a good fit. Cut 12mm tall strips of 4mm ply to size and fit these around the existing body 10mm ply combing, using superglue to tack the ends together (carefully, or using clingfilm over the combing). Then cut the base shape of your car body out of 4mm ply, smear PVA underneath roughly where the combing will be and glue over the outer combing, making sure it's located properly with regards to being on centre and even when measured to either side. The reason that the outer combing is 2mm taller than the inner one will become clear (spoiler alert: otherwise both combings will stick to the car floor base).

Once dry, if following the plan example, glue 6mm square balsa around the top of the car base and sand to shape (this will give the wrap-around body a bit more material to adhere to). Then, using the template, cut a strip of 0.8mm ply, or alternatively thin card to size for the body (see **Photo 6**) and fit a nosepiece to the front of the car base; this will need to be as wide as the floor 'nose' and high enough to meet the top of the body at that point. Next, wrap the ply around the base, checking the bottom of the car body touches the deck of the hull. Keep the car base on the hull for this operation.



DETAIL SHOWING PULLEY RIGGING
NOTE ONLY ONE CABLE SHOWN



NOTE NAIL POINTS TOWARDS SERVO PIVOT WHEN MOTOR POINTS FORE-AFT

SPECS BASED ON PROTOTYPING
LENGTH O/A - 330mm
WIDTH O/A - 230mm
HEIGHT O/A - 290mm
(FROM BOTTOM OF MOTOR)
NOT INCLUDING PICKUP POST
WEIGHT - 850g, EXCLUDING MOTOR
MOTOR - 28mm OUTRUNNER
PROP ADAPTOR WITH S35

TUBE SUPPORT BLOCK

4mm PLY HULL TOP & BOTTOM TO THIS LINE

DASHED LINE INDICATES CAR BODY & COAMING

90mm

PLY STRIP TO SUPPORT MOTOR WIRE

4mm PLY SUPPORT

SECURE

SUGGESTED JOIN IN FOAM

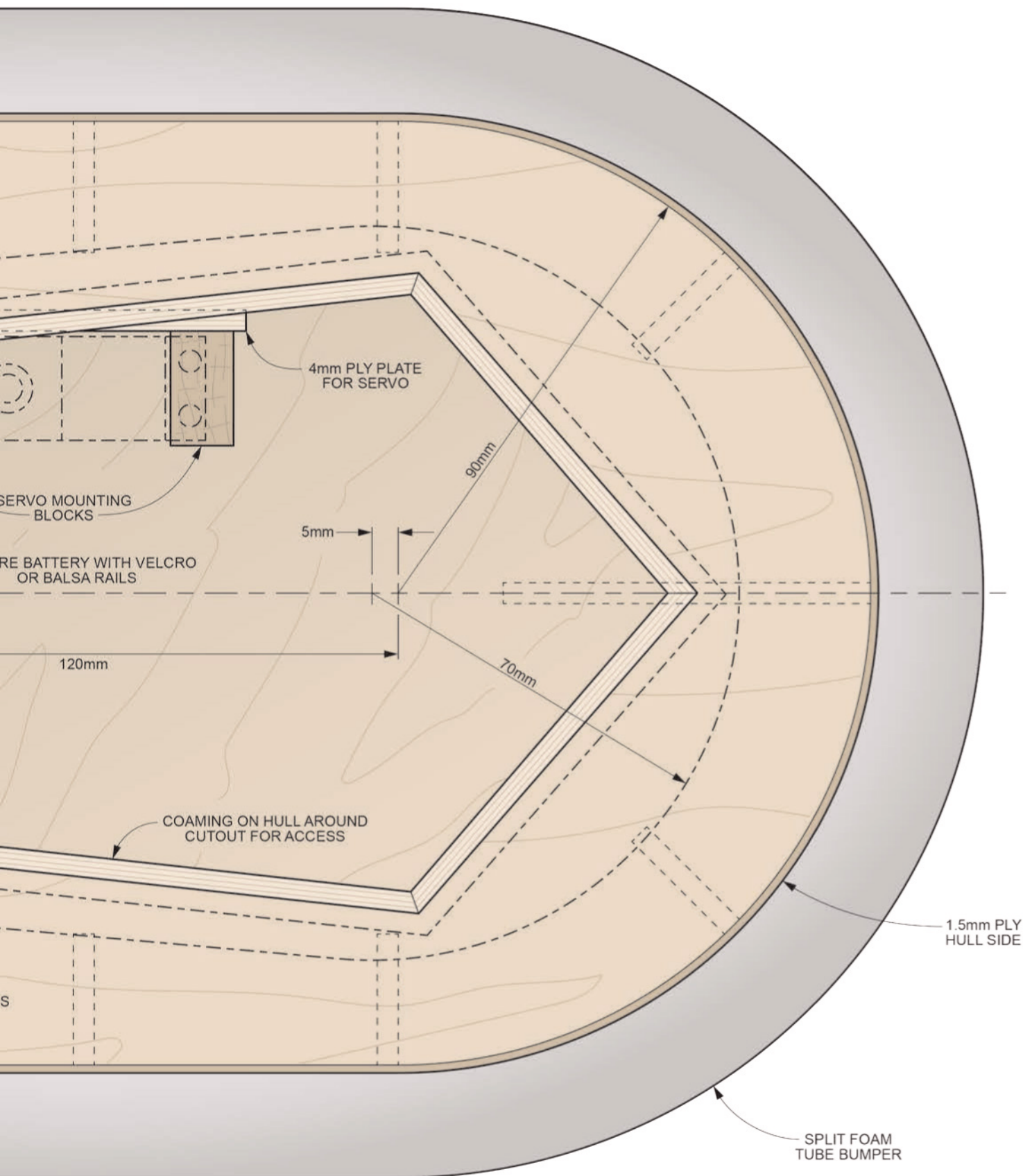
BRASS TUBES FOR MOTOR:
K&S METALS
INNER: #8138 Ø15/32" - 11.92mm
OUTER: #8139 Ø1/2" - 12.7mm
1.6mm BRASS STRIP FOR
MOTOR MOUNT 25mm WIDE

TYPE:

TO TOP OF BARBIE'S BONCE
(LE)
A 400g 6-CELL NiMh BATTERY
R, 1000kV
TWO-BLADE PLASTIC PROP

DODGE-EM

A SIMPLE & FUN BUMPER BOAT
DESIGNED BY ASHLEY NEEDHAM



AM TUBE

HALF TEMPLATE OF
4mm PLY CAR BODY BASE

ADD 6mm SQ. BALSA STRIP
INTERNAL SUPPORT

CAR BODY TEMPLATE DRAWN AT HALF SIZE
ENLARGE 200% FOR FULL SIZE
CUT TWO FROM 0.8mm PLY, TAPE TOGETHER AT REAR

4mm
DASH
& SEAT

BALSA STRIP
INTERNAL SUPPORT

4mm x 12mm PLY COAMING ON CAR BODY BASE

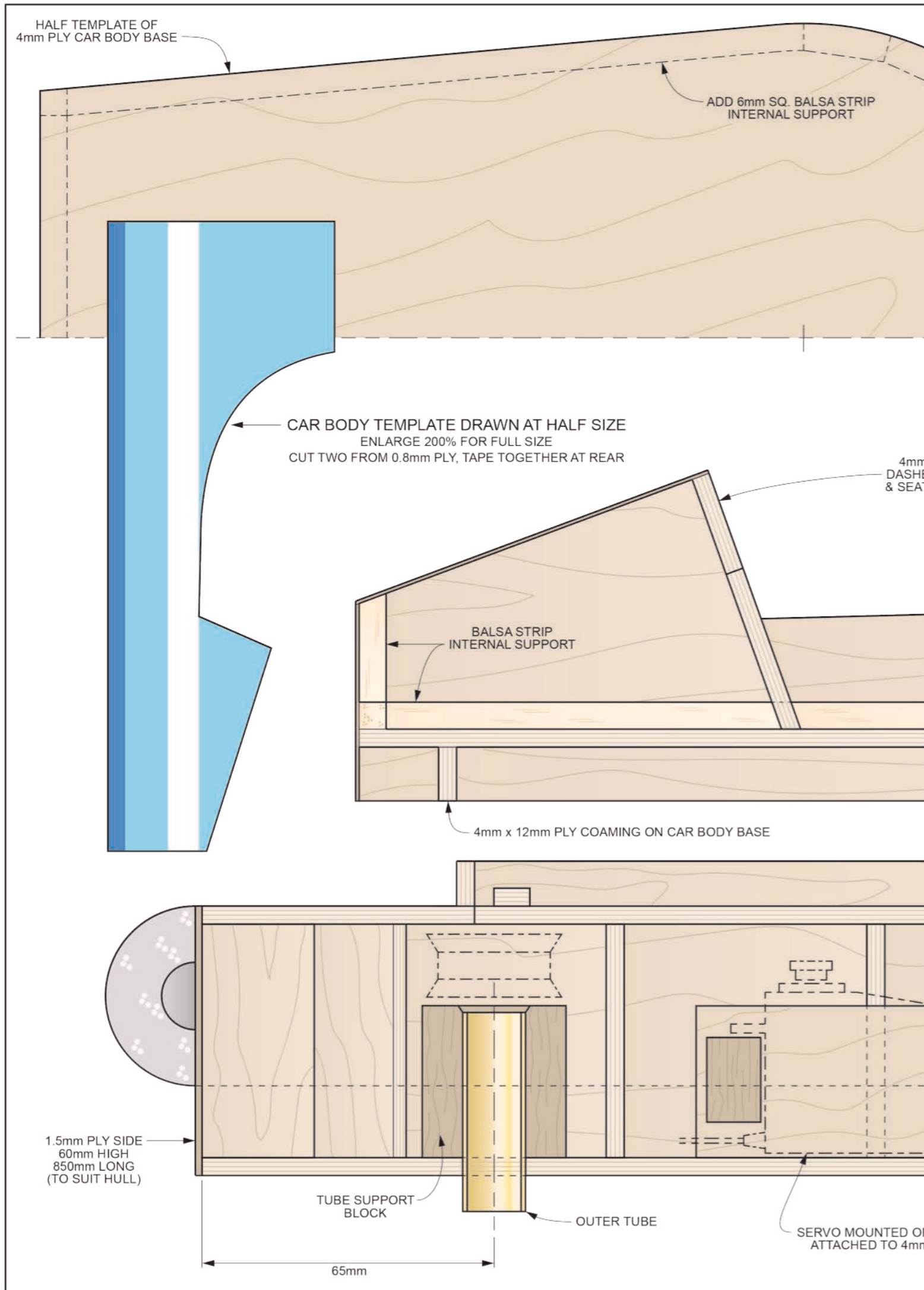
1.5mm PLY SIDE
60mm HIGH
850mm LONG
(TO SUIT HULL)

TUBE SUPPORT
BLOCK

OUTER TUBE

SERVO MOUNTED ON
ATTACHED TO 4mm

65mm



7

The car body sides and bonnet.

It's beneficial, if using thin ply, to pre-curve the back end. This can be done using a hot air gun and a paint tin to wrap your ply around while heating it up. Your ply will cool very quickly (but use gloves) and will set into a reasonably tight curve.

I used superglue to stick the body sides to my base because of the almost instant bond but PVA will do. Note that the plan shape is longer than actually required at the front; again, intentionally so, as this will allow you to trim the front flush to the body base and the 'front grille'. The 2nd car body had a 10mm lower bonnet line and the nose was about 15mm thinner, and I didn't stick the 6mm balsa strip to the sides on this second build.

Moving on, cut a semi-circular fillet of the same circumference as your car body base and glue this into the top rear of the body. Next, you will need to make a rectangular arch to support the 'bonnet' and sides (this is the dashboard bit, take measurements from your car body),

making sure the cut-out can accommodate Barbie's long legs (see **Photos 7 and 8**).

It's now time, before putting your bonnet in place, to fit some LED headlamps (see **Photo 9**); these are, of course, optional: I didn't fit all the Bushey Park bumpers with headlamps. Where I did, however, to simplify things, my top pole pickup LED (flickering) and headlamp LEDs were powered by a battery pack (3xAAA batteries contained in a plastic holder). This holder can be velcroed to the underside of your car base.

You are now ready to cut and glue on your bonnet, including some balsa fillets behind the joint if you want, although make these oversize again to allow sanding room.

It's now on to the rear seat rest, the sides of which taper outwards at the bottom so that the backrest slopes a bit; here, I'd suggest using a card template to get the right shape first.

Bear in mind Barbie is going to need plenty of leg room!

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You will also need to sort out the pole pick-up, which on the real fairground attraction carries a pick-up wiper to collect electricity from the metal grid above your head. On my bumper builds, I inset a tube into the rear, as shown, to carry a longer pole. I recommend using a striped, varnished, paper straw, with a thin bent brass 'pickup' on top, as this simply plugs in and can just as easily be dismantled for storage/transportation purposes.

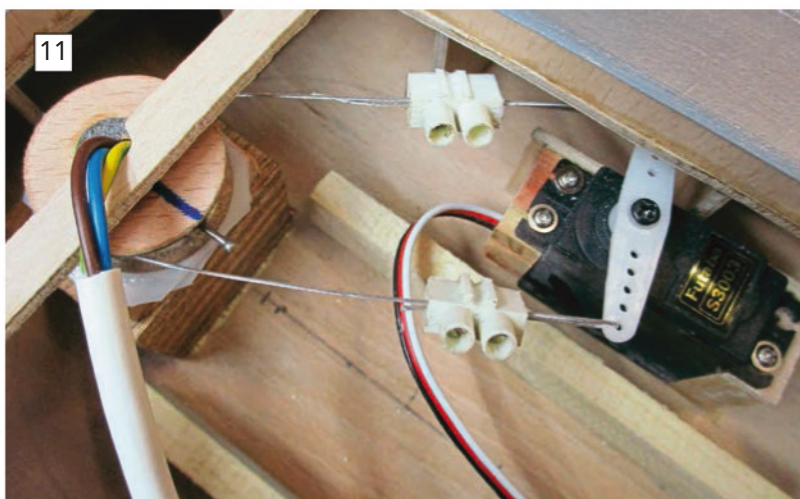
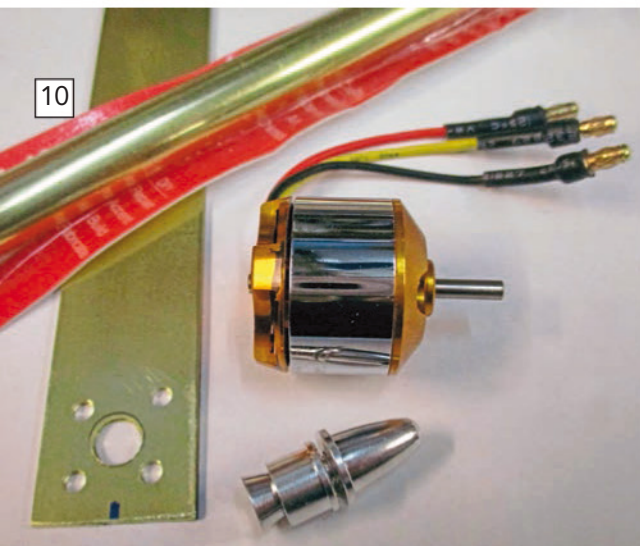
The motor

A key feature of a bumper car is its extreme manoeuvrability. Twirl enthusiastically on the steering wheel and it will go forwards, take speedy right angles, and even reverse. Obviously, this is a 'must have' characteristic, and can be achieved with a brushless motor mounted underneath the boat, i.e., in the water.



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LEFT: Fitting the LED headlamps.



BELOW LEFT: The parts required to make the motor mount. BELOW RIGHT: The bumper pulley system.

"In the water?", I hear you shout. Well, yes, and they love it! They work perfectly well, and if they're spun when out of the water, and blown out after a run and then treated to a squirt of WD40, they should last a reasonable time. Despite the fact that after a year's worth of thrashing a couple of ours do now sound a bit rough, this doesn't seem to inhibit their performance. I had thought the bearings were sealed types, but it looks like they may simply be shielded, and not waterproof. However, as mentioned, a drop or two of WD40 should keep the rust at bay and, being water lubricated, the bearings aren't likely to seize.

But I digress... It's best to look at the picture really, as the installation concept is

very simple. A 1.6mm brass strip is drilled to mount the motor on, which is then soldered to a brass tube into which the motor wires are fed (see **Photo 10**, illustrating the parts required). This tube slides inside another (set into the previously positioned wooden block), with a three-layer home-made plywood pulley wheel glued on at the top made from circles of 4-6-4 mm ply (see **Photo 11**). Extend your motor wires via heat-shrink wrapped soldered joints, as you don't want to have any inaccessible connections. With these wires exiting from the inner brass tube, they need to be secured by positioning a strip of wood across the top, so they stay stationary. When the motor turns, they will twist inside the tube, but not much and you'll find they should last OK.

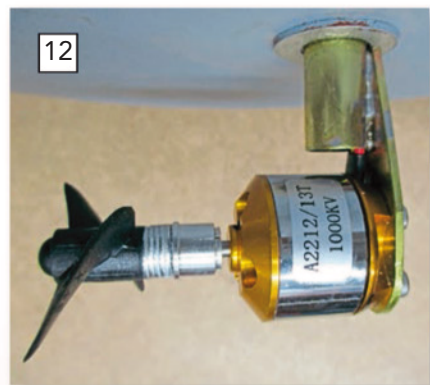
A valuable lesson learnt from a build omission on my prototype is that you should countersink the central hole a bit and make sure the inner tube is slightly underneath the top level of the pulley. A servo with long arms

is required to turn the pulley via a length of stainless-steel nylon-covered fishing trace. The system won't work if there's any stretch, although thickish nylon fishing line might be OK. Small electrical connectors are handy for securing the trace, and the method for laying out the line is to put a small pin (nail) in the pulley, point this pin towards the servo pivot, while making sure the motor is laying fore and aft (once again see **Photo 11**), before then gluing the pulley in place over the inner motor tube using a smear of epoxy. Notice in **Photo 11** the servo arm has been turned a bit and the pin has moved accordingly!

You will need to tie a length of trace around the pin and lead one end of this around the back of the pulley to one of the servo arms; repeating the process for the other. Obviously, the wrap is clockwise for one arm and anti-clockwise for the other, and this gives a large movement without binding the wire. Mine manages about 170 degrees of movement, affording the ability to turn almost sideways from stationary (required, for instance, if wedged between some other cars), although not backwards. If, however, you use a servo extender or sail winch pulley, you will indeed be able to reverse. Keeping it simple, though, 180-ish degrees is good enough.

Power to the people!

A 28mm diameter 1000Kv brushless out-runner and 30A ESC can be had together via eBay for a ridiculously cheap price and this will turn an M5 X50 prop, mounted on the supplied-with-motor 5mm threaded prop adaptor (see **Photo 12** for the finished motor mount); you may have to use some washers as spacers. This is a fearsome combination, giving masses of instant thrust for quick acceleration. These bumper boats, however, are not fast per-se, and they don't need to be, as pushing power and manoeuvrability are the key requirements. No power ratings were actually stated in the leaflet that came with my purchase, although 12A was specified as the maximum current allowed on 3s, which works out at about at 120-watts, or thereabouts.



ABOVE: The motor in position.

RIGHT: Thanks to Ashley's lap belt securing Barbie in place, she is free to concentrate on other important things, such as flicking back her golden tresses!





“6mm holes were drilled either side of Barbie (through the seat pad and plywood) so a nylon cable tie could be wrapped around her skinny thighs as a lap belt – and, oddly, with the locking bit of the cable tie positioned face up, it does look just like a seat-belt and holds her quite securely”

The finishing touches

Bumper cars, of course, need the all-important rubber bumper-ring around them. To create mine I settled on Armaflex pipe insulation, sized for a 15mm pipe and having a 13mm wall insulation thickness, thus being about 40mm in diameter. This suitably coloured (black) closed cell neoprene material is very flexible, bends around the contours of the hull easily without kinking and can be stuck in place with an impact adhesive or Bostic, something you can't do reliably with the normal grey polypropylene stuff.

Once the bottom bit of the hull has been painted, split this rubber tube in half lengthways, so you have a 'D' section, and make sure you have a length long enough to wrap around the body so that the ends just touch (if you allow one metre for this, you'll have a little left over). Mask off the painted bit, paint glue on body and rubber (and the ends), stick the rubber on, and then peel off the masking tape.

I painted my hull silver, top and sides and it looks the business!

Sitting pretty

Obviously, Barbie needs to be comfortably seated. To this end, I used a bit of 6mm neoprene foam covered in felt, which I stuck in place with UHU glue. 6mm holes were drilled either side of Barbie (through the seat pad and plywood) so a nylon cable tie could be wrapped around her skinny thighs as a lap belt – and, oddly, with the locking bit of the cable tie positioned face up, it does look just like a seat-belt and holds her quite securely (see Photo 13).

So, to the steering wheel... Mine was fashioned from a slice of styrene tube (approx 45mm), with a cross-piece glued across it and drilled for a 9mm diameter length of wood dowel. A hole to suit in the dashboard needs drilling, before fixing this in place with superglue and painting (white, in my case).

Paint your ~~wagon~~ car

I'm not going to tell you how to paint or what to paint with, but I used acrylic primers and paints over-sprayed with an acrylic clear car spray varnish to make it all nice and shiny. Obviously, you will accessorise your body 'to taste'. The prototype, however, has been kept very simple so as not to confuse the issue, with just a two-tone paint job and some cheap stick-on acrylic rhinestone jewels (16mm in diameter) for the headlights; these are very effective in the sunlight – possibly even more effective than the LEDs, which in any sort of sun are all but invisible!

Move over, darling!

While looking for alternatives to the ubiquitous Barbie, I chanced on some D.C Comics figures made by Mattel. The 12-inch tall super-heroine types are all very cheap and a pair spotted being offered on a well-known auction site peaked my interest. Succumbing to temptation, again, a parcel arrived soon after with a 'Batgirl' and 'Supergirl' enclosed. They're a bit more 'cartoony' than Barbie and have even longer legs, so, if you opt for one of these, your car may need to be altered slightly or your doll treated to a 'footectomy'! I managed to squeeze mine in after I'd sanded their very thick shoe soles down. I thought them worth mentioning, though, as they do give you scope to make themed car tops, which can look very attractive! I've made *Batmobile* and *Supercar* alternative car bodies (one of each for my two hulls) so that I can ring the changes now and again. The actual style of driver is immaterial, however, as if you went along to a fairground where the cars on the dodgem rink were themed, it's highly unlikely anyone having a bit of fun in the *Superman* car would be in costume!

Initial testing

On transporting the ensemble to the waterside, you may experience some concerns about how light it seems, but fear not, as a 6-cell 3700mAh battery is a fair weight and settles the craft admirably. If using a 2s Lipo, I'd suggest ballasting with strip lead to achieve the 400g overall Nimh battery weight.

“These are very effective in the sunlight – possibly even more effective than the LEDs, which in any sort of sun are all but invisible!”



"The manoeuvrability of these cars is ridiculous and unlike anything we have previously had on the pond"

Girls just wanna have fun – but then, doesn't everyone?



At pond-side my gear was turned on and, once Barbie had acquainted herself with the controls, the bumper was dumped in the water. What happened next came as a bit of a shock. I can't quite believe I am saying this but there was too much thrust from the power unit! The level of instant thrust available using the x50 prop was excessive and the boat was almost uncontrollable, rearing up at 40 degrees when full throttle was applied. I was actually too scared to turn using anything other than minimal throttle! So, a x40 prop was tried and this was much better, giving a decent amount of performance on a 6-cell Nimh battery pack while keeping the current draw to a reasonable 8A, down from 12A on the x50.

Since then, the only issue that has come to light is the propensity for 'amateurs' (bystanders

or youngsters having a go) to use full throttle all the time. This makes these cars very difficult to control, so all the bumpers have been fitted with s35 props to limit the thrust even more.

With this in place, current consumption drops to only 3A, so the use of continuous full throttle is not a problem, speed wise or indeed in terms of overheating the ESC. A word of caution: do not use a 3s Lipo or the bumper will likely do a barrel-roll if the motor is anything other than fore-aft, and the same goes for an x50 prop. You have been warned!

One of our chaps used a simple linkage from the servo to the motor pillar rather than the pulley and cord, giving only about 45 degrees of movement side-side and this seems to be OK to be honest. It does lack some of the extreme manoeuvrability of the pulley cars, but with practice it's not such a

big deal, and perhaps worth thinking about if you don't want to try the pulley system.

The bumper waterline is about 20mm up from the base, so just under the foam bumper ring, and has proven to be quite stable. The manoeuvrability of these cars is ridiculous and unlike anything we have previously had on the pond. The small size and roundness of them ensure they turn on the proverbial sixpence, and the response is instant. They have no reverse as we're using aircraft ECSs but this hardly matters as they will change direction instantly, even from a stationary position, and can be made to go back the way you just came in the blink of an eye.

I found that a rearwards battery position, giving a slightly nose-up attitude helps manoeuvrability, and a late modification was the provision of a fixed skeg at the stern to



Da da, da da, da da...



Is it a bird?

"For club, school fete or garden use, the boats are quite happy in a large paddling pool, needing just 5-inches of water"



The Bushey Park boaters actively encourage the public who gather round the pond to try out their bumper car boats. Here, under the control of complete newcomers to model boating, a game of 'football' (using the yellow float) is being attempted. We have to say, Action Man is really living up to his name!

assist in straight line control and damp down the spinning, as without the fin it was too easy to overcompensate when trying to come out of a spin. Once you have found the best position for the battery in your boat, you can use velcro tabs or rails to hold it in place.

As this is a contact sport, the very first test I carried out at the pond was a ramming attack on the concrete jetty at full power to ensure the boats were fit for purpose. This was something of an anti-climax as there was nothing more than a dull splat as the boat hit the jetty, with not even a hint of the top coming loose. The Armaflex foam works really well in absorbing impacts and in practice all the bumps on the pond are very gentle. To date none of us have experienced any water in the hull body and even the tops don't seem to get that wet. It may, however, be a good idea to arrange some sort of hold-down unless, as in my case, the top is a good snug fit over the combing.

4 tokens a ride

You won't believe how much fun we've had with these boats, generally playing games such as football (a polystyrene 'Y' shape, with a vertical pendant weight in its centre to try and keep it flat, sized so that a bumper front will sit in any of the cut-outs is tossed in the pond, with either two teams or individuals trying to get the 'ball' to one side or another to score), 'It!' (ask a small child what this is) or Bulldog.

The jetty portion of the Bushy Park boating pond is in a rough triangle with the opposite bank and this makes an ideal arena for playing with our dodgems.

It's astonishing how difficult it is to actually make contact and bump someone. Ha! Unlike our regular boats! This is due to the superb and instant manoeuvrability of these dodgem/bumper boats. Attacks are not conducted at any great speed and the merest twitch of the rudder control is sufficient to get the defending boat clear.

In point of fact, overpowering the boats is counter-productive and simply makes them harder to control. We've found that half throttle is about all you need, with a quick full power burst just as you bump, or when you push.

How long will the motors really last? No idea, but if dried and WD40'd, they should run for a good few years (a year and a half in combat and we have not had a failure yet). The lesser motor life, however, is a trade-off against the extreme ease of building and all the manoeuvrability and fun to be had.

Personally, I'd suggest buying two motors, one as a spare, as they're cheap and easy to replace if that ever were to become necessary. Those with a more mechanical bent could even use a small-brushed motor I reckon, altering the motor mount to form a clamp perhaps?

Although differing in the detail, all the Bushey Park boats are well matched, with no stand-out performers or duff ones, making for close competition. Besides our crew, we regularly invite bystanders to have a go, and if they have no boating experience, well, that just makes it all the more fun! As they're unable to cause any damage, even the most reticent can be persuaded to try their hand at bumping. As an aside, for club, school fete or garden use, the boats are quite happy in a large paddling pool, needing just 5-inches of water.

All in all, I'd say they are probably the best boats we've ever built! ●

Approximate overall dimensions (as per Ashley's prototype)

Length:	330mm
Width:	230mm
Overall height from bottom of motor to top of Barbie's bonce:	290mm (not including pickup pole)
Weight:	850g, excluding a 400g 6-cell Nimh battery.
Motor:	28mm outrunner, 1000Kv, prop adaptor with S35 two-blade plastic prop.

Captured on camera, the sheer satisfaction of having given a 50-year-old model a whole new lease of life.



Seagull sea change

Part 2

Dave Wooley puts the finishing touches to this inspiring conversion

Whether you're on a modeller working within the confines of a very restricted budget, looking to develop or hone your skills, or perhaps simply on the hunt for your next challenge, there are now lots of old, often long forgotten, model boats/ships that can be picked up on the second-hand market. You will often see these restoration projects offered for sale at very reasonable prices on club event stalls or listed on various online auction sites, etc.

As explained in Part 1, I decided that rather just embark on a restoration, I would have a go at transforming one of these old timers into something completely new and different. I am so glad I did as, in the process, I have learned so much. I set myself a modest competition budget of £50 and, as those of you who read Part 1 last month will be aware, with some nifty recycling, I managed to bring the refit (necessary to transform JB Mouldings original Bird class model into the

RAF long range recovery vessel, *Seagull* – a Seal class vessel) in at a very thrifty £10. There was still, however, a fair bit of painting and decorating to be done in order to really bring *Seagull* to life, which is what I shall be covering this month.

Shake, rattle and roll...

One of the advantages of my chosen subject was that it allowed a departure from the old model's original all grey finish, as shown in Part 1. For the model's new incarnation, as the

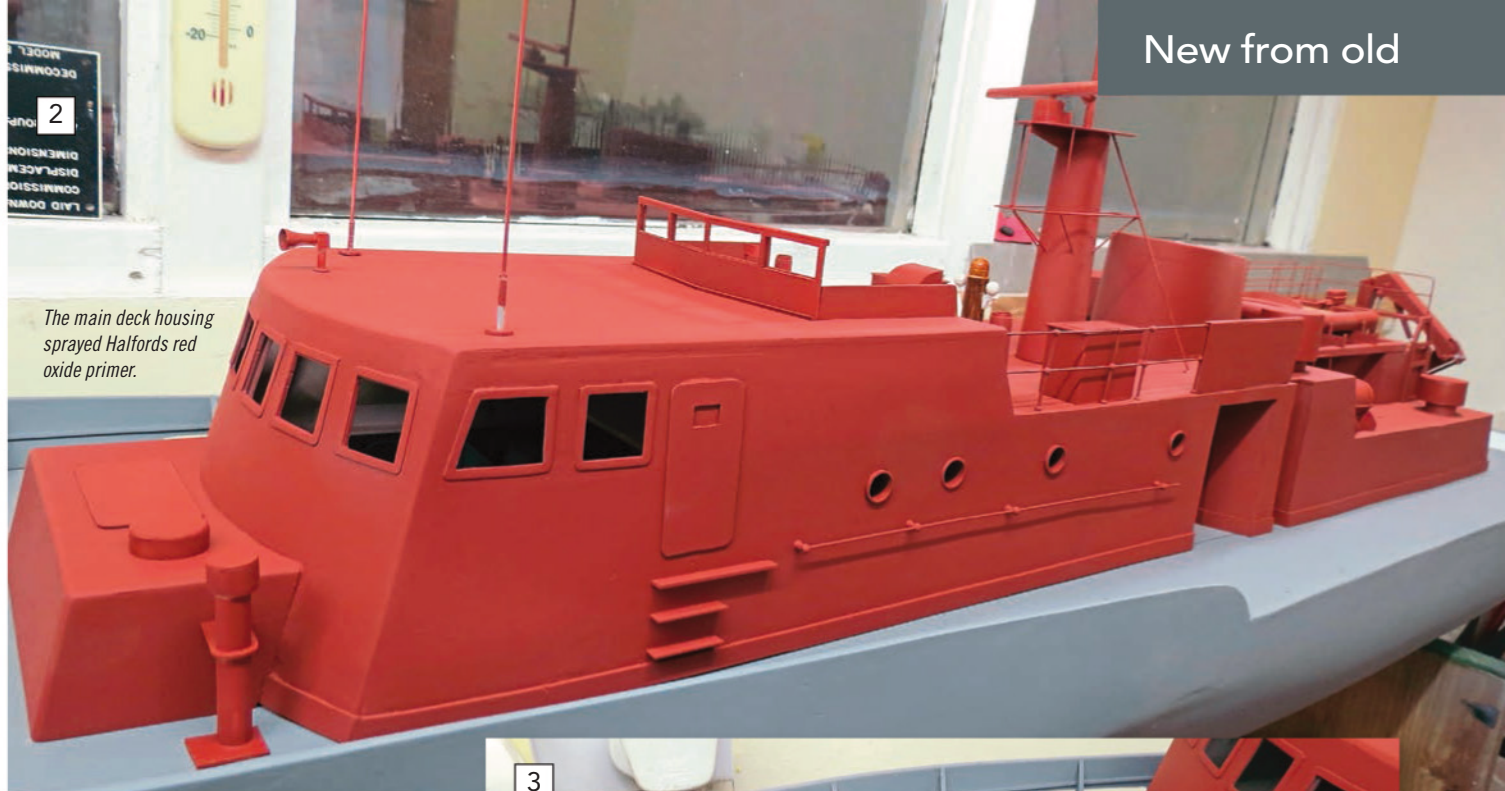
Seagull, the colours required would be buff for the deck housing and fittings, green for the deck, black for the hull and red for the anti-foul.

My original intention had been to airbrush (as this would usually be my preferred method of painting) but, given the model's proportions at 1:35 scale, and the need to keep costs down, I decided to change tactics and work with rattle cans (see **Photo 1**).

Although I have used spray cans on several occasions, the technique involved in application is altogether different from

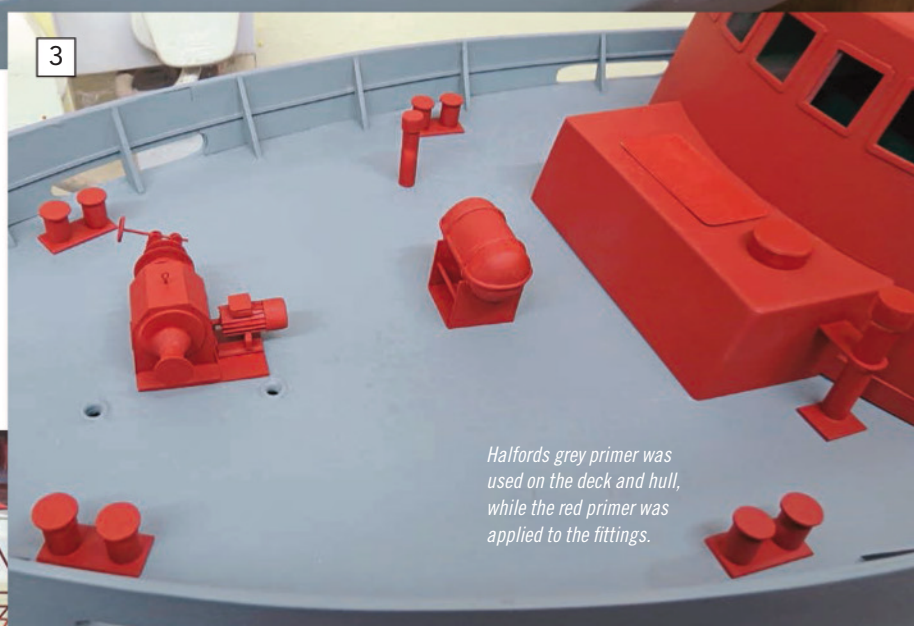


These paint sprays are often referred to as rattle cans, but they're great value for money when painting a large-scale model such as RMAS Seagull.

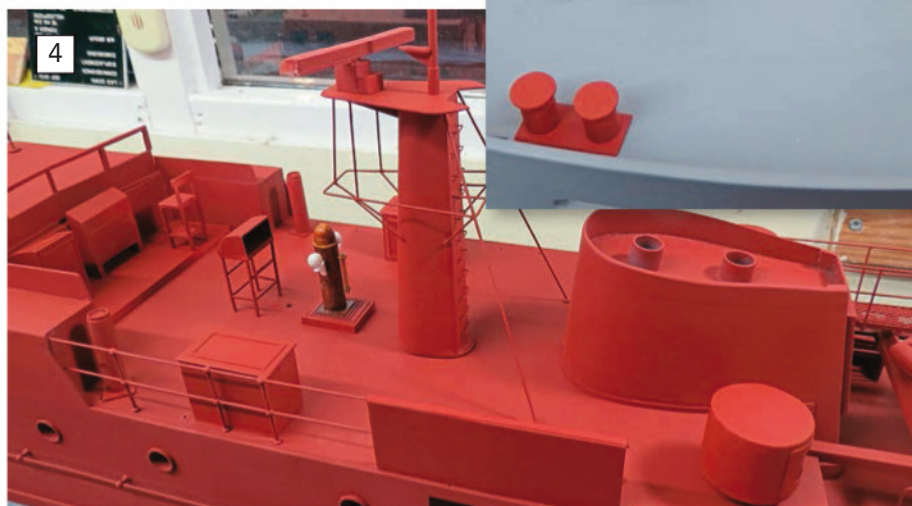


The main deck housing sprayed Halfords red oxide primer.

airbrushing. As I've mentioned in articles covering my previous builds, while the capacity for an airbrush is restricted to the size of the bowl or jar, the delivery of paint in, say, a double action airbrush is fully controllable. Precise and even application of paint from a can, on the other hand, is somewhat trickier to master. Careful pressure on the cap, though, can, to some degree, give you control of the flow and, provided

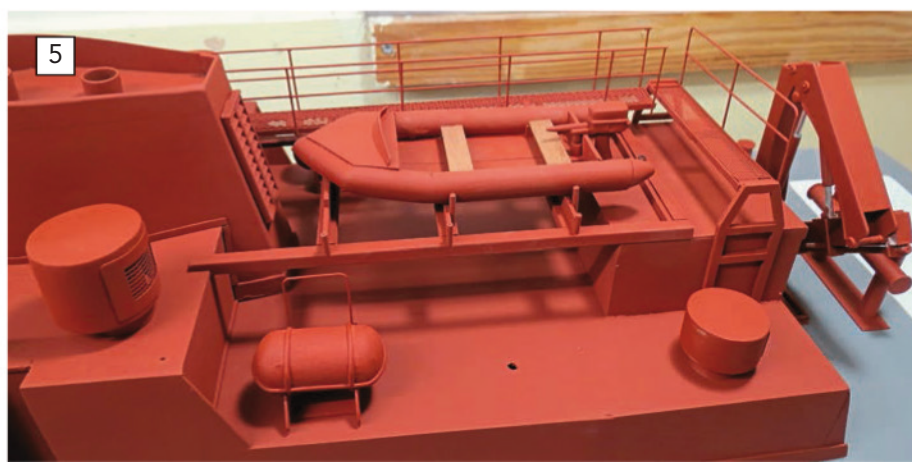


Halfords grey primer was used on the deck and hull, while the red primer was applied to the fittings.



ABOVE: The fittings and superstructure were sprayed separately in red primer and temporarily assembled in situ on model.

BELOW: The Gemini inflatable was scratch-built using Evergreen styrene tube, and the outboard shaped from the fine-grained timber Jelutong.



you maintain a constant sweep of the surface at a regular distance, the results can be very pleasing. A big plus is the considerable cost saving when you compare the capacity of a can of primer against a jar of its airbrush equivalent. The downside is in the range of colours available.

But, of course, before getting stuck into all this, there was some prep to be done. Following a thorough sanding down, my usual method is to apply 400 wet and dry and fill any crack or rough surfaces with Revell white fillers; the latter being easy to paint over with primer. Being an avid warship modeller, my usual go to is Halfords grey primer, but considering the intended colour scheme here, I decided the prepared surfaces of the superstructure and fittings for this model would each received a coat of Halford's red oxide primer.

Once the major fittings had been assembled in their respective locations (see **Photos 2-5**), and the deck had been masked off, a coat of that same red primer was applied to the hull. As explained, all that was required was a continuous flow of paint



ABOVE: Spraying red anti-foul with a Halfords spray can, a task seen performed here out in the open on a calm, warm day.
BELOW: Job done!



at an approximately 40cm distance from the surface, gradually working from one end to the other, and from the keel down to the deck edge – a process then repeated on the opposite side (see **Photo 6**). The trick here is not to apply too much paint to one area, as this tends to produce a patch that takes longer to dry and also increases the possibility of ‘runs’. I know many of you will

already be acquainted with spray painting from cans but, for those who aren’t, I feel these points are worth making as, just like any aspect of modelling, the basic techniques mentioned above will make it so much easier to achieve a good end result (see **Photo 7**).

For the deck surface, I opted for Tamiya TS78, which comes in 100ml can. Interestingly, although marketed under the name Field Grey, the shade is more green than grey, as can be evidenced here (see **Photo 8**).

Before we continue with painting, I must refer you to the two open hatches, which provide access for A) the 12v AH gel cell, B) the RX (well clear of the interior) and C) an Mtroniks ESC and switch – all very basic but more than sufficient for the requirements of this model (see **Photo 9**).



Masking off and spray painting the deck housing horizontal surfaces with Tamiya Field Grey (yes, we know it looks green!).



The two original openings into the hull, while slightly modified, remain much the same on this rebuild.

Existing Battery Bay 12v 7.5AH

RIGHT: All the deck housing and deck having received their finishing coat (except for the clear varnish which will be applied once Seagull is fully assembled).

With the deck surfaces sprayed my attention shifted to the vertical surfaces and fittings. As is my usual practice, all the prepared fittings were sprayed, with Humbrol No. 63, separately from the superstructure. The flat surfaces were all masked off; the net result being a neat and tidy deck housing (see **Photo 10**). It's worth noting that the original stanchions and rails also underwent a makeover, with the stanchions finished in white and the rails in black.

It was exciting to see what a huge difference relatively small alterations, i.e., replacement of existing fittings, the addition of new ones, and a nice fresh paint finish, were beginning to make; a dusty and rather forlorn 50-year-old model was gradually metamorphosing into a very lively and colourful model (see **Photo 11-15**). Areas such as the bridge had undergone a complete facelift, thanks to the addition of various fixtures and fittings I scratch built, with,



BELOW: The fully prepared bridge deck fixtures and furniture: binnacle, chart table, captain's seat, helm and flag lockers offered into place. Note also the RMAS Seagull emblem.



ABOVE: Further fittings added, included various sizes of round vents, life raft containers (all white) Gemini platform and walkways (part matt black), and Gemini inflatable (overall dark blue).



ABOVE: Right aft adjacent to the covered winch housing, the HIAB (matt white) and towing post (matt black).

LEFT: Additional fittings to the opening on the port side: locker for fire-fighting equipment and fire extinguisher.



BELOW: Although Seagull is now painted, the job is far from complete.





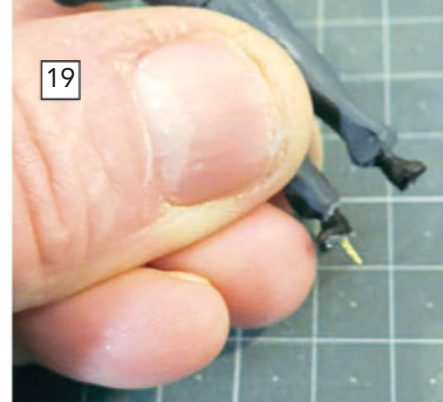
Although at this stage *Seagull* was all fitted out, painted and ready, something missing: the crew. Hunting around Dave came across these 1:35 scale sets of figures by Ukrainian manufacturer MiniArt, offered at a very reasonable price.



Each body part is removed from a sprue, along with various other items, such as head gear.



These injection moulded figures are easy to assemble, well detailed and can be adjusted to suit individual requirements.



ABOVE: To ensure a secure fix to the deck, each figure is fitted with a heel pin.

I should add, a modicum of modeller's licence. As mentioned in Part 1, the aim here was not to create an exact scale replica, just a model I could have fun sailing at my local lake.

Give your crew a sense of purpose

Those of you who have followed some of my previous builds will appreciate it took time for me to be convinced that figures can actually add realism to models rather than making them look rather toy-like. My light bulb moment came when I noted how professional model builders John and Julian Glossop always included Royal Navy figures, posed to give the impression that they were busily getting on with their jobs onboard. All my subsequent builds from that point on have include crew.

I am often asked where this or that figure at a particular scale can be purchased. Naturally, different manufacturers tend to favour different scales, depending on which sector of the modelling market they serve. For example, in 1:35 there's a wide range of military figures to choose from, while 1:144 caters well for both military and civilian, and although 1:72 doesn't offer quite as wide a selection as the two scales already mentioned, there are still numerous options. 1:96 and 1:100 prove a little more challenging but, fortunately, there are manufacturers, such as Shapeways, that produce entire ranges in these smaller scales.

As *Seagull* had a civilian crew, some lateral thinking was required. I remembered when building the OSA2 missile boat I'd bought a US PT crew at 1:35 scale and had, with some modifications, transformed the figures to credibly represent a Syrian Navy crew of the 1980s, I realised I could, therefore, take the same approach for *Seagull*. So, after searching around I came across three candidates, all produced by the Ukrainian manufacturer MiniArt. The quality of these figures is good, as is the price; the latter may vary depending on which supplier you order from but, on average, the cost comes in at just under £10 per set (see **Photo 16**).

These figures come on individual sprues, which incorporates several parts; for example, legs, torso arms and head (see **Photo 17**). They're easy to assemble, and it's at this point that any modifications you wish to make can be addressed. As previously noted, Milliput is an excellent material for creating replacement limbs should you wish to indicate a different pose to the one intended by the manufacturer (see **Photo 18**). Once the figure is painted (the technique

20



ABOVE: Two crew figures carrying out work on the anchor winch. Note the crewman kneeling down is equipped with a wrench and toolbox. BELOW: The skipper at the helm and the navigation officer on the chart table.

21



of painting figures constitutes a separate article), I prefer to insert a .45 brass pin into his heel to ensure that he can be fixed firmly fixed into place (see **Photo 19**).

I know I am probably stating the obvious, but for the sake of credibility, if figures are placed onto any model, be it R/C or static, they really need to have a purpose. This can be carried one step further still by having not just the odd one or two isolated figures but a number all active as part of a team, as would be witnessed on most ships. As an example, you will notice I have two crewmen working on the anchor winch (see **Photos 20-21**),

23



22



ABOVE: Supervision of the preparation and making ready for deployment of the inflatable, but first this will need to be fuelled up. LEFT: A particularly credible shot of the bridge, courtesy of some good weather and a bit of nifty camera work.

while on the open bridge the skipper is at the helm and the navigation officer is inspecting the charts (see **Photos 22-23**). Aft, the Gemini inflatable is being made ready for use, with the outboard being fuelled up and one of



No calm seas here. As mentioned, the original model performed well, and Dave's new incarnation gives just as good an account of herself.

24 Once again a rather picturesque view of crew activities. On the elevated walkway a crewman can be seen fuel can in hand, while one of the more senior members of the crew is clearly checking out the HIAB.



the more senior engineers supervising with the need for an extinguisher to hand (see **Photo 24**). Across the link, one of the crew is bringing a fresh can of fuel (see **Photo 25**).

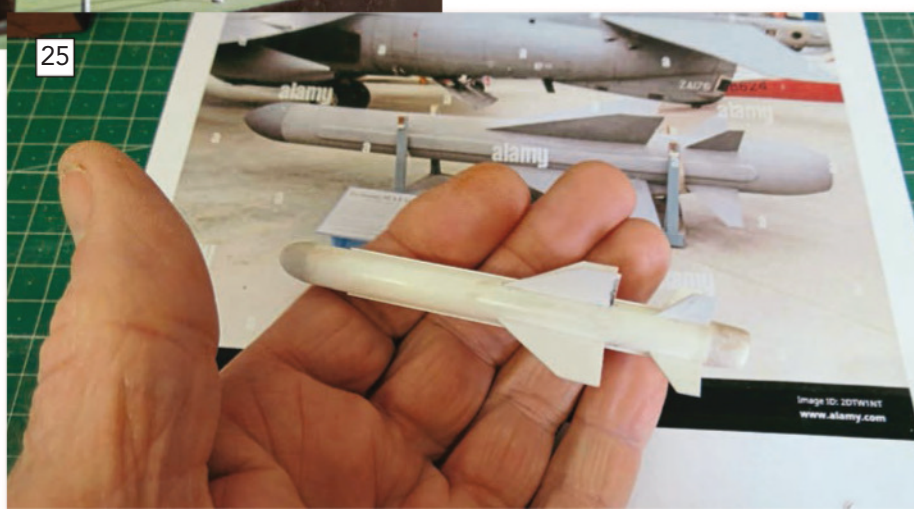
Focal points

While figures can elevate the level of realism, so, too, can fittings, especially if they have a connection to the activities the crew are being portrayed as actively involved in.

For example, the purpose of my vessel is recovery, but I've also included a scratch-built Sea Eagle missile (see **Photo 26**). I mentioned a member of the crew with fuel can in hand on the walkway. Well, you could ask where he got that from. In answer to that question, I have installed a fuel ejection chute, which was a common feature on smaller warships. The rational was that fuel for the Gemini was stored on the deck edge and in an emergency could be collectively discharged outboard – a feature shown ringed in yellow in **Photo 26**. The Sea Eagle missile safely stowed away to be returned from whence it came is ringed in red. You will also notice more of the crew checking out a consignment of fuel drums destined for other ships while the HIAB is being made ready for use.

BELOW: Forming the Sea Eagle missile from off cuts of Evergreen tube and styrene sheet. The moral here is always have a scrap box handy.

25





ABOVE: Dave has managed to achieve an impressive balance between performance and visual interest.



The contrast between a model minus a crew (see Photo 18) and one with crew figures is quite striking.

The Seagull's first dip

When launching a new build there is almost always a degree of uncertainty, usually accompanied by a bit of an adrenalin rush. This was not the case with *Seagull*, as the modifications I'd made were almost entirely cosmetic, with very little having been done that would be likely to adversely affect her performance. Even so, there was still a great deal of satisfaction in seeing her finally take to the water in her new guise.

All things considered

The purpose of this two-part feature has been to demonstrate how, with a little bit of imagination, time and effort it's possible to transform a tired old model into something new and exciting, even if you are working to a tight budget. That said, I should point out that the model I chose to convert was still in good working order, and I was fortunate enough to have various bits and pieces left over from other

"While figures can elevate the level of realism, so, too, can fittings, especially if they have a connection to the activities the crew are being portrayed as actively involved in"



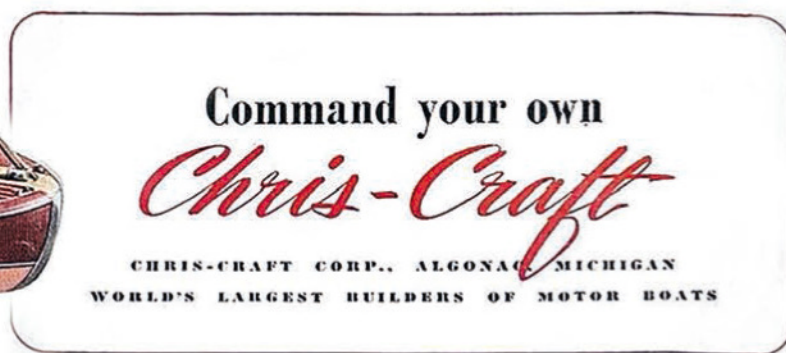
ABOVE: Thanks to a recent birthday present, Dave can now remotely capture both stills and movie footage from *Seagull's* bridge.

projects I could recycle, including a spare R/C receiver, ESC and gel cell.

As stated, my aim had been to keep total expenditure below £50, and I must confess I didn't quite manage this. All in all, I spent £57, but considering how pleased I am with this model I can certainly live with the small overspend. Added to this, I'm very excited about the waterproof camera I was given for my birthday and which I've now installed in the *Seagull's* enclosed bridge. Apparently, this can be operated remotely to either take stills or use in movie mode – so I am now looking forward to enjoying a whole new take on a bird's eye view! ●



Riviera runabout from a Chris-Craft advertisement.



Crafty Chris

John Parker reflects back on how Chris-Craft carved out a reputation for pleasure boat design excellence and considers the plans and kit options available to modellers



ABOVE: Capri runabout running light detail.

“Such was the fame and popularity of his boats that Chris-Craft, the name he adopted for his company in 1924, subsequently appeared in some dictionaries as a synonym for pleasure craft”



ABOVE: 1950s' Capri runabout cockpit detail. BELOW: Capri runabout engine installation.

Christopher Columbus Smith started out in business by carving duck decoys (sometimes used in waterfowl hunting). Before the 19th century had drawn to a close, however, he'd established the Smith Boat House on the St. Clair River at Algonac, 65 kilometres from Detroit, Michigan, and set it on a course to becoming the world's largest producer of wooden boats. Such was the fame and popularity of his boats that Chris-Craft, the name he adopted for his company in 1924, subsequently appeared in some dictionaries as a synonym for pleasure craft.

Construction

Chris-Craft's "all mahogany boats" were not, strictly speaking, built of mahogany at all. The timber used was indoako from the Philippines, similar to the better-known meranti and commonly known as Philippine mahogany. Vast amounts were shipped from the Philippines each year to the Algonac factory complex. By using production line techniques and running his factories all year





LEFT: Capri runabout side hinged engine cover.

BELOW: Wartime advertisement for landing craft.

***“It was a Chris-Craft LCVR
(Landing Craft, Vehicle, Ramp)
that made the first landing at
Normandy on D-Day
(June 6, 1944)”***

round instead of just during the summer season as his competitors did, Chris Smith was able to keep the price of his boats down while maintaining their quality.

Sawn frames and ribs were of white oak, fastened to a mahogany keel. Over this, a first layer of diagonal mahogany planking was applied to the bottom of the boat while it was inverted and being moved along the production line on wheeled trolleys. Over the inner planking came a layer of canvas. The sides and bottom would then have their longitudinal planking applied; the planks being secured to the framework by bronze screws. The screws were counter-bored and ‘bunged’ with mahogany plugs. All the woodwork had to be planed, scraped, sanded, and filled.

Interior flooring and fit out – fuel tank, steering gear, etc – would come next, followed by the laying of the covering boards and deck; after which, engine hatches, seat frames, coamings and instrument panel would be fitted. In the finishing room, once a final check for blemishes had been conducted, four coats of varnish would be applied in a heated, dust-free atmosphere. Then, the nickel-plated deck fittings would be attached, some of these works of art in their own right. The motor installation was the last operation. The engine would most probably come from Chris-Craft’s own engine division, which produced engines ranging from a four-cylinder 45 horsepower model to a V-8 of 350 horsepower.

From pleasure boats to landing craft

When the Great Depression of the 1930s gave way to World War II, production turned to landing craft of many types for the armed forces, LCPRs, LCVRs, LCVPs, LCVs and LCPLs amongst them. Over 12,000 were produced, earning Chris-Craft a prestigious ‘E’ for excellence award. It was a Chris-Craft LCVR (Landing Craft, Vehicle, Ramp) that



made the first landing at Normandy on D-Day (June 6, 1944). Advertisements of the time highlighted Chris-Craft’s contribution to the war effort and showed artists’ wistful impressions of the private boats that would be available once peace returned.

Post-war boom

The post-war consumer boom saw new styling influences, such as the rounded nose, painted accents and automobile-inspired fins. Production rose steadily to some

1,000 boats per year, of over 100 different models, exported to 30 countries. Though much of Chris-Craft’s production consisted of commuting vessels, sailboats, cabin cruisers, military vessels and motor yachts, the company will always be best known for its open speedboats, for which it coined the term ‘Runabout’.

Chris-Craft began to experiment with the new material fibreglass in the 1950s, using it for dramatic designs such as the curvaceous turtle deck of the Cobra and the hybrid

RIGHT: The 1949 range of boats.

"You'll find a distinct shortage of plans for Chris-Craft boats because they were kept a closely guarded secret for commercial reasons. Similarly, the company was reluctant to allow its designs to be produced as model kits"

wood and fibreglass Silver Arrow. The hybrid construction proved not to be a success, however, being heavy and suffering from delamination. In 1960 the three generations of the Smith family sold Chris-Craft when it was at its peak of popularity and profitability, perhaps anticipating a new era in which the fibreglass boat would reign supreme. The company continues today after several further changes of ownership.

Product range

Many distinct types of craft and size variations appeared in the Chris-Craft range for any particular year, and it can be quite confusing to make sense of them all. The *Utility*, a response to the Great Depression, omitted much of the deck covering to make possible a cheaper boat. Its greater practicality for fishing and transporting goods made it very popular and it remained in the range as the *Sportsman*. By 1950 the *Runabout* had evolved from single, twin, and triple cockpit designs into a merged cockpit design ahead of the engine, as this was found to be the most economical layout to produce; examples are the *Riviera* and later *Capri* with curved windscreen, which did 39 mph (63 kph) with a 131 hp (98kW) engine.

The more specialised *Racing Runabout* retained a traditional rear cockpit behind the engine. *Commuters*, as the name suggests, were designed to carry a large number of passengers on short trips. The *Sedans* were

essentially closed in *Runabouts*. From there the *Cruisers* and *Express Cruisers* could supply all your needs for accommodation and speed, up to a 55-ft (17m) double cabin cruiser that slept ten "in homely comfort". Many could be specified with various options such as the 'navy top' or flying bridge. Chris-Craft also made sail boats, skiffs, game fishing boats, houseboats, and kit boats.

Modellers' options

You'll find a distinct shortage of plans for Chris-Craft boats because they were kept a closely guarded secret for commercial reasons. In many cases a drawing didn't actually exist, the boat being developed from an expertly carved model in a reversal of the usual process. Similarly, the company was reluctant to allow its designs to be produced

RACE over the waterways at thrilling speeds up to 45 m.p.h. in a new 19-footer. The world's best-looking, best-performing Racing Runabout. Try it!

COMMAND this new Chris-Craft 20-ft. Custom, the finest runabout afloat... speeds to 39 m.p.h. Also a new 16-ft. Runabout with speeds to 37 m.p.h.

HERE'S your best buy in an all-purpose Sportsman—18-ft. ... ideal for fishing... speeds to 34 m.p.h. Also new 16-ft. Utility... speeds to 33 m.p.h.

BRAND new 24-ft. Cruiser with Dineette—speeds to 24 m.p.h. Also three new 26-footers: Express, Semi-Enclosed and Enclosed Models.

WORLD'S lowest priced Express Cruiser... 21-ft. ... speeds to 30 m.p.h. ... 8 berths forward... quality built throughout by Chris-Craft.

NEW 17-ft. De Luxe Runabout with speeds to 40 m.p.h. Economical to operate—drives like a dream. Priced to please your budget, Sailors.

ENJOY living afloat in this new 30-ft. Sedan. Sleeps four... speeds to 24 m.p.h. Available, soon, new 28-ft. Cruiser with 2 separate staterooms.

PACK your bags and be off in this new 33-ft. Cruiser. Speeds to 34 m.p.h. Or, choose one of three 36-footers—Salon, Quarter Deck, or Double Stateroom.

BE HOME aboard this grand, new 40-ft. Double Cabin Cruiser! A luxury to handle. Sleeps 8... built-in beds aft... sun deck... speeds to 33 m.p.h.

OH, MAN! What a wonderful new 22-ft. Custom Sedan! Speeds to 34 m.p.h. Cabin has ventilating windshields and sliding windows.

NEW 1949 Chris-Craft 22-ft. Sportsman—speeds to 35 m.p.h. Folding top available at extra cost. Here's fun for you, your family, too, sportsman!

GIVE this big, beautiful 25-ft. Sportsman the "go" sign! Speeds to 40 m.p.h. Factory-installed ventilating cabin or folding canvas top, extra.

YOU'LL love this beautifully planned and appointed 24-ft. Express Cruiser. Navy top, side, aft curtains, standard. Speeds to 28 m.p.h.

FORTY FEET of fun in new Express. Speeds to 34 m.p.h. Intrinsically finished even to Navy top, side and aft curtains at no extra cost.

THREE couples can cruise with separate sleeping quarters in this 40-ft. Challenger. Speeds to 33 m.p.h. Canvas top, side, aft curtains, standard.

CRUISE ship to make all your dreams come true! New 46-ft. Double Cabin

SAILORS!
See a friendly Chris-Craft Dealer for details on the great new Chris-Craft Line for '49. There's one nearby. Order your new Chris-Craft now! And remember, for the best investment in boats—BUY CHRIS-CRAFT.

Command a NEW 1949
Chris * Craft
CHRIS-CRAFT CORPORATION, ALGONAC, MICH.
Special equipment shown, when not listed as standard equipment, will be furnished, on your order, at extra cost.



A vintage Dumas kit of the Challenger.



A vintage Sterling kit of the Catalina.

BUY U. S. WAR BONDS TODAY

Tomorrow command your own

CHRIS-CRAFT

Coming—New De Luxe Enclosed Chris-Craft Cruiser for postwar delivery . . . Today, we're 100% on war work.

Keep Your Spirits High ☆ ☆ Speed Victory

CHRIS-CRAFT

FOR PRODUCTION "WEIL DONE"

CHRIS-CRAFT CORPORATION, ALGONAC, MICH. ★ WORLD'S LARGEST BUILDERS OF MOTOR BOATS

as model kits, the only major licensees being Dumas Products and, in the distant past, Sterling Models (see Flotsam and Jetsam, in the January 2017 and October 2015 issues of Model Boats respectively). In the case of the latter company, the license lapsed following

a change of ownership, and Sterling used the label Kris-Kraf to avoid legal action.

I had to go back a long way to find some Chris-Craft designs in the Model Maker Plans Library. August 1957's *Model Maker* (Model Boats' predecessor) carried details

"Quite a bit of work is therefore required to make these kits really look their best, but I've built several of them and it is worth the effort"

of 'Runabout' by Model Maker staff, plan MM480, a simple, small (457mm) speedboat based on the Chris-Craft Riviera, while January 1954's issue had a semi-scale flat bottomed Chris-Craft Commander by A.M. Colbridge (aka Ron Warring), plan MM318. Only the latter currently appears in the Sarik Hobbies plans listing, but the plans were printed in the original magazines, and this may be an easier way to find them.

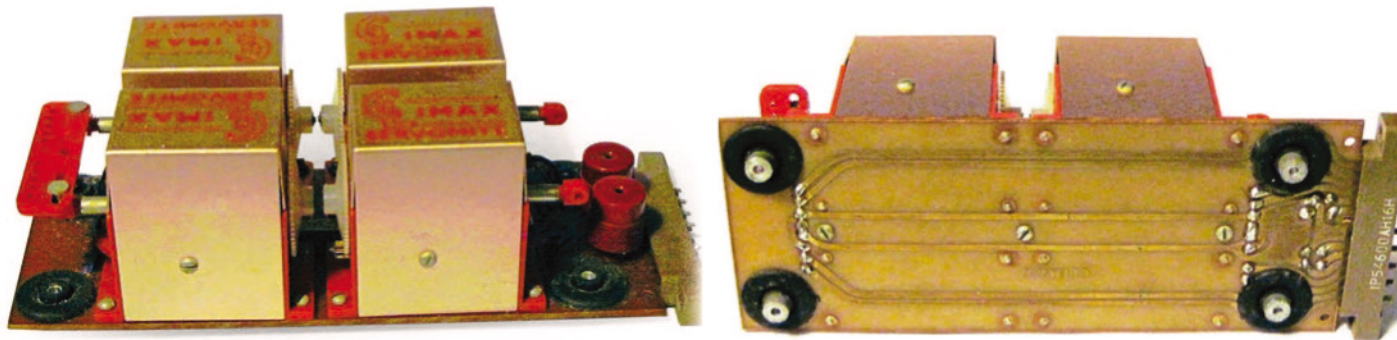
A dozen Chris-Craft kits are currently listed in the Dumas range (https://www.dumasproducts.com/?product_cat=chris-crafts): I prefer the older kits in the range, such as the *Barrel Backs* and *Cobra*, for they have double-planked hulls in ply and mahogany and vacuum formed seats that make them more realistic. Later kits, such as the *Racing Runabout*, have balsa to shape the seats and foamed plastic sheet for the first sheathing of the hull. This may well be lighter and easier to apply but being a sheet doesn't allow the true double curvature of the hull to be reproduced.

The Dumas plans and instructions are available separately but naturally do not include the frame sections needed to scratch-build. Fittings included in the kits are lead-based cast metal (these are also available separately) and they need quite a bit of cleaning up to remove mould lines and flash; this, however, destroys the chrome finish, which soon dulls in any case, so the only real answer is to polish them up and have them re-plated. Quite a bit of work is therefore required to make these kits really look their best, but I've built several of them and it is worth the effort.

If there is no kit of the Chris-Craft model you're interested in, you might find what you are looking for in the discontinued kits of Dumas and Sterling going back to the 1950s; these, however, are now rare and sought after, so command quite high prices on internet auction sites. Another option stems from Lindberg having re-released its 1950s' 1:20 scale plastic kit of the Chris-Craft *Constellation* some years ago, which is 760mm long and with a one-piece hull is well suited to R/C conversion. It is, alas, listed as no longer available, but shouldn't be too hard to find second-hand if plastic magic is your thing. ●



ABOVE: John's 1940 Barrelback built from the Dumas kit. RIGHT: Lindberg plastic kit of the Constellation.



A mid 1960s high end choice for 'multi' channel R/C was this mint 'Servomite Pack' from C&L Developments.

Four little mites!

Dave Wiggins provides a retrospective look at a set of British-built electric actuators ...

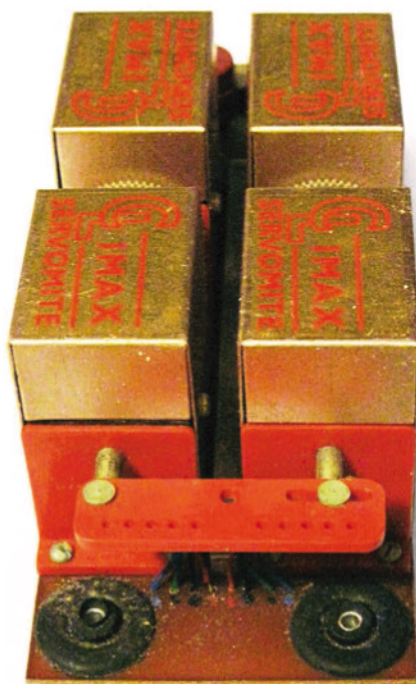
This month's smaller than usual feature (a feature-ette maybe!) concerns the once very popular products of a firm known as C&L Developments (trading as Climax Ltd) of Weybridge, the leading light of which was an engineer called Peter Cabrol.

When I first began building models back in 1963, I was experimenting with my own radio gear, using designs found in books and magazines (like the then brand-new RCM&E). Fortunately, as I was then apprenticed within the UK radio industry, I had lots of support and encouragement from the design engineers I was placed under. I think these enlightened men reasoned that if a youngster was actually interested in what he was studying at college, progress would be quicker – and they were quite right!

In those days there were really only two sorts of radio system in use for model control, these being either single- or multi-channel, with control of either being known in slang terms as 'bang-bang'. This meant (put very simply) that users had only full or no deflection; for example, full right or full left rudder in a boat, the helm snapping back to centre once one's finger was taken off the transmitter button or key.

There were various, mostly rather unsatisfactory, adaptations for single-channel available, using manual, mechanical, or electronic pulsing methods by which one might obtain intermediate positions, but the vast majority of us used either a single-channel clockwork 'escapement' (for sequential rudder control) or a motorised actuator; the latter being more often teamed with much more expensive 'reed' multi-channel radios.

This month's lead item (amazingly, still in 'as new' condition) is a set of four British-built electric actuators of the latter type, all mounted atop the firm's own anti-vibration mount protected/printed circuit baseplate. This was intended to be the main part of an 'easier' installation package designed to give buyers



what was then termed 'full house' control of a model aircraft, with a 10-channel reed receiver (ten reeds gave the modeller five control functions), battery packs, and an extra actuator mounted in the aircraft wing to allow for aileron control.

A costly hobby

One could, of course, purchase such actuators individually, and just two were required to fully control a powered marine model. There was also at least one other version of the 'pack' shown aimed at so called 'intermediate' (club level) model aircraft pilots owning just a 6-reed outfit; this, priced at £20 and 11 shillings during the early 1960s, having three 'Servomites' to allow for rudder, elevator (both self-centering), and (positional) throttle control.

'Intermediate' control was a popular club modeller's option in that era, as it was more affordable compared to full multi-channel operation. Even so, £20 just for the three actuators was still an awful lot of money to find in 1962/63. The item actually shown, plus the necessary aileron servo (allowing 'full house' control), was priced at over £40, with 10% purchase tax on top. This was an absolute fortune and, don't forget, you still had to buy a vastly more costly reed radio outfit, an engine and a model kit as well. R/C really was a rich man's hobby back then.

Servomites and Unimites in boat use

The Climax 'Servomite', four of which are seen on this 'pack', was a British-designed and manufactured, transistorised, multi-channel actuator intended to be driven by a 'relay-less' vibrating reed receiver, by which was meant

LEFT & BELOW: The popular Climax UNIMITE and its box.



"This was a first tentative step away from electro-mechanical to all electronic (i.e., solid state) R/C and was very clever stuff back in 1963"

a receiver without any electro-mechanical 'relays' and where pairs of trembling, gold flashed, metal reed contacts triggered each of the actuator amplifiers directly. This was a first tentative step away from electro-mechanical to all electronic (i.e., solid state) R/C and was very clever stuff back in 1963.

The 'Servomite' itself was available in two variants: either self-neutralising or 'progressive' in action, the first being used on rudder, with the other meant for engine speed control; and converting one to the other was a simple home wiring job. Climax also made a range of other multi-actuators sold without amplifiers for use with the older sets that still used relays – designs like the big old 'Musclemite' and 'Aquamite', for example, but these, too, could be ordered with Amp's if desired. Or you could retro fit Amps yourself, if you felt up to a wiring job. There was still a lot of flexibility and a big element of DIY hanging on from the early days of build-it-yourself radio back then, and lots of people made amplifiers for retrofitting at home.

The Aquamite was a large, specialist, purely marine item, housed in a sealed, red moulded case, and was pretty much waterproof, so was much seen in big power cruisers where its high power was ideally suited to controlling big models driven by 15cc Gannets, 8 or 15cc Taplins, or an 8 or 10cc MERCo, for example. Servomites were a bit lightweight for marine use and not remotely waterproof but could be used in small diesel or electric boats if protected from spray.

The great little Unimite

The same was true of C&L's popular little 'Unimite'. This was a clever, motorised, 'compound action', electrical device for use with relay equipped, single-channel receivers. Having started out using clockwork escapements in my first boats I soon upgraded to this modern electrical device and never looked back, once, that is, I had mastered its different control sequence. One blip for right, or blip and hold for left – it was almost 'multi-channel like' in its speed of operation. I believe that Climax also offered the Unimite in 'pack' form, akin to the Servomite-Pack illustrated and I presume that was meant for model aircraft.

All of these popular Climax products were made in Britain and commanded huge popularity over here when partnered either with a British-built reed set, like an old REP, a 'modern' RCS 'Competition 10' or 'Inter/Marine 6', or with imported 'posh' high-end radios, like an American Orbit, Min-X or F&M, not that many of those were seen in the boat world.

The opposition

Climax didn't have an exclusive hold on the UK actuator market, which was undoubtedly dominated, worldwide, by the famous products of Howard Bonner out in the USA. His Duramite (for relay receivers), or Transmite (relay-less)

were the better off contest flyers' number one choice for decades. Even as 'reeds' eventually faded to be replaced by the first wave of successful proportionals, Transmite parts found their way into the first few feedback servos supplied with such advanced 'space age' R/C sets.

All things considered, the Climax Servomite could hold its head high next to a Transmite and cost a lot less money when bought in Britain; so, at club level, the British product was dominant. I was actively involved in the Essex club scene throughout the 1960s and, although American radios were always popular, such was their fame and quality, even these imports were often seen partnered with British Climax actuators as a cost saver. I would guess that better off clubsters, having lashed out big time on something as expensive (even secondhand) as an Orbit-10, looked to save some money by partnering their 'posh' new radio with more affordable British actuators. One thing I can state as a fact is that a visit to any club flying field or 1960s' pondside would have seen Climax actuators aplenty, and the RCS + Climax combo was much in use, too.

A proportional radio from C&L

Climax successfully made the move from reeds to proportional, but only to an extent. The Aquamite appeared in a feedback version and was often seen paired up with one of two quite popular Climax 2-channel digitals at the pondside. I owned one of the company's 1+1 sets (red case, proportional rudder but sequential throttle), sets myself for a bit and it was perfectly satisfactory in my opinion, if rather bulky. Friends at my club owned the dearer blue cased 2-channel radio and that was a very good set too, smaller Horizon-made servos sometimes replacing the big old Aquamite. I'm not sure that its aircraft sets (see Ad) sold very well, but the UK marine market was very well disposed towards Climax gear in general, and we all borrowed the cash to make the big move up from reeds to digital as soon as we could afford to, c.1970.

Stay tuned

That's all from me this month, but future instalments of Memory Lane will feature a couple of sweet little British engine, followed by the story of what was, at one time, easily the world's most famous and well-regarded radio brand – the lovely Orbit, as mentioned earlier. ●

"CLIMAX"
MULTI-CHANNEL TRANSISTORISED ACTUATORS

Dear Modeller,
We are frequently asked by you which type of actuator to use with various types of multi-equipment and offer the following information as a guide. Firstly, the amplifier used is completely "fail safe" (i.e. both channels can conduct at once with no damage). It does not require a centre tapped battery. There are only four wires to be connected, one to positive, one to negative and the other two to the respective reeds. The common side of the reed unit should be connected to the negative of the actuator supply. All British Rx's bring a wire out from the common side of the reed unit, American and Japanese Rx's frequently have the common side of the reed bank connected to the positive. This should be disconnected and a wire brought out and connected as above.

The SERVOMITE: Very light and small actuator with adequate power for the largest competition aircraft. It requires insulating against vibration for reliability and the use of a Pack board or an individual vibration mount is recommended. Transistors approx. 5 sec. Power requirements 7.2v. DEACs are essential. Use 10mA. When using American equipment requiring 6v. use 7.2v. and tap off at 6v. for Rx.

The MUSCLEMITE: Heavier and larger actuator with ample reserve of power. Very reliable due to built-in land at limits enabling more movement to be obtained for the spin with an external switch coupled to the throttle. Supplied in made-up or kit form.

TRANSISTORISED SERVOMITE PACK
Mounts four Transistorised Servomites for Rudder, Engine, Elevator and Elevator Trim. Simplifies wiring and installation. Reduces vibration by 80 per cent giving utmost reliability. Incorporates trim bar, P.C. connector for Rx and batteries, plugs and sockets for Aileron and 11th and 12th channels. Weight 8½ oz. with four Servomites. Price £4 19s. 2d.

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10 and 12 Channel sets fitted with Aileron Mount.

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SERVOMITE AILERON MOUNT
This mount is designed to simplify installation of Standard and Transistorised Servomites when they are used for aileron. It considerably reduces the effect of vibration and also gives a push pull output. Price 17s. 9d.

SERVOMITE VIBRATION MOUNT
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MK. II UNIMITE
Very popular compound motorised single channel actuator. Size 2½" x 1½" x 1½". Weight 1½ oz. Maximum load 6 oz. One 4½v. flat battery required for power including engine control. Price £3 10s. 6d.

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ABOVE: The Servomite pack advertised.

BELOW: C&L made the move from reeds to digital, as seen here.

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BOILER ROOM

Richard Simpsons addresses the question of which boiler types require testing

After a few months of following a build project, I thought it might be appropriate to get back to a topic close to all our hearts, namely the subject of model boilers. Specifically, this month's topic was prompted by a recent conversation I had with a member of a club that I've not been to but that I know operate steam models, so I wanted to make contact with their steam tester, mainly to arrange getting my own models tested, which I am obviously unable to do. As previously mentioned in Boiler Room, while you have to be a member of an affiliated club, it is possible to get a boiler tested at another club. The response I received from this particular club was that they didn't have a resident steam tester; the reason given for this being that all the boilers used by the club's members were very small and so didn't need testing. This made me realise that there's still a need to promote the message of just

A typical horizontal model boat boiler fitted with twin poker burners. It still works out as a less than 3 bar-litre boiler though, so is covered by the rules contained in Volume 2.



what needs doing as far as steam testing of our model boilers is concerned, not just in regards the different procedures for boilers classed as above the 3 bar-litre level and those

classed as below that limit, but also what may be required for what we consider 'small boilers'. The boiler types that seem to cause the most concern are the small Wileco and Mamod types, many of which don't even have a pressure gauge and are frequently fired by liquid fuel or solid fuel tablets.

Classification of boilers

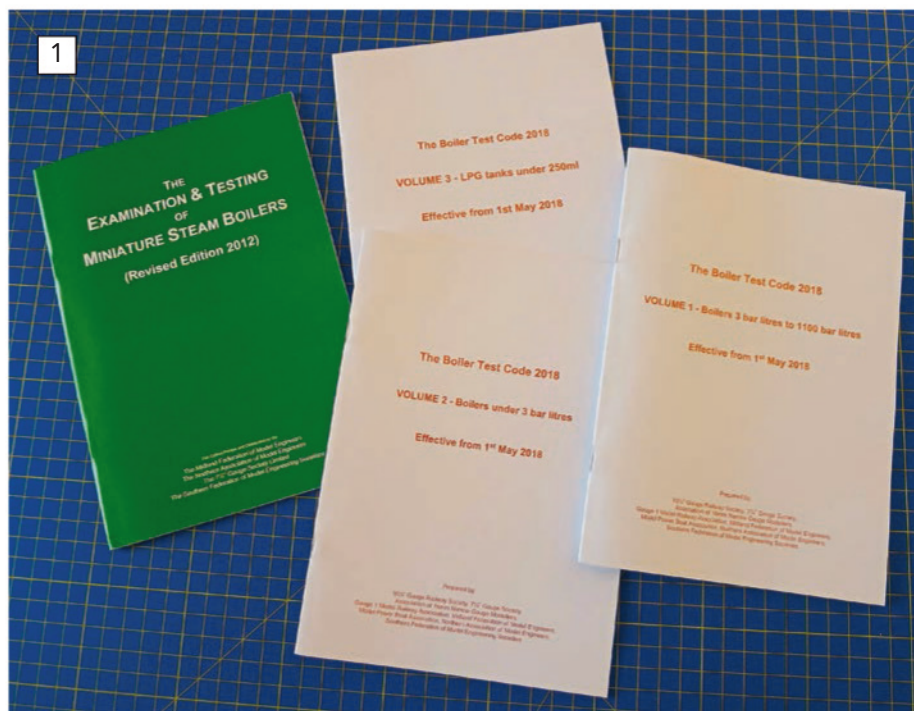
The latest version of the rules appertaining to model boilers (the Boiler Test Code 2018 – popularly known as the 'Orange Book', despite the fact that the cover actually features a white background with orange text) came into effect on May 1, 2018. This set of rules now supersedes the previous rules, known as the Green Book (see **Photo 1**).

This set of rules is now split into three books, as follows:

- Volume 1 – Boilers 3 bar-litres to 1100 bar- litres
- Volume 2 – Boilers under 3 bar-litres
- Volume 3 – LPG Tanks below 250ml.

You can, therefore, see that we already have the two major categories, namely either above or below 3 bar-litres. The vast majority of our boilers fall below this 3 bar-litre limit, so Volume 2 would be the book that applies to the majority of us.

A point worth mentioning here is that there is a degree of flexibility and personal choice when it comes to the defining of the



The Orange Book Boiler Test Code came into effect on May 1, 2018, and supersedes the previous set of rules contained in the Green Book, which should now be discarded.

BELOW: Older boilers can quite often be of a larger capacity, so it might be worth considering classifying the boiler at a lower working pressure than the original design if you want to keep it lower than 3 bar-litres.



bar-litre number for your boiler, and hence the testing procedure it should follow. The bar-litre number, derived from the product of the boiler capacity in litres, which is obviously fixed, and the working pressure in bar, which can be varied, can be modified. For instance, if you buy a boiler of 1.0 litre capacity with a designed working pressure of 3.5 bar, its bar-litre number would be 3.5, therefore over 3 bar-litres and covered by Volume 1. You can however choose to run at a lower working pressure if your engine and model boat perform satisfactorily. If you're happy to run your boiler at 2.75 bar, the bar-litre number would be 2.75. In such a case, however, you must appreciate that your boiler will only be certified up to the maximum working pressure of 2.75 bar, that your safety valve must lift at no higher than 2.75 bar and maintain a pressure when lifted of no more than 10% over the 2.75 bar, and that your pressure gauge must be marked on the face with a red line at 2.75 bar.

Examples of typical model boilers are shown in the following photographs:

* **Photo 2** shows a typical capacity model boiler; this is, however, fitted with twin poker burners, making it a very capable steam raising boiler for its size. The designed working pressure and capacity, though, still work out at less than 3 bar-litres.

* **Photo 3** illustrates a larger capacity old Stuart boiler, which would have been classed as above 3 bar-litres had it been used at its designed operating pressure. Its owner, however, decided that the engine worked

satisfactorily at a lower pressure, so the boiler was certified at a pressure low enough to keep the boiler below 3 bar-litres.

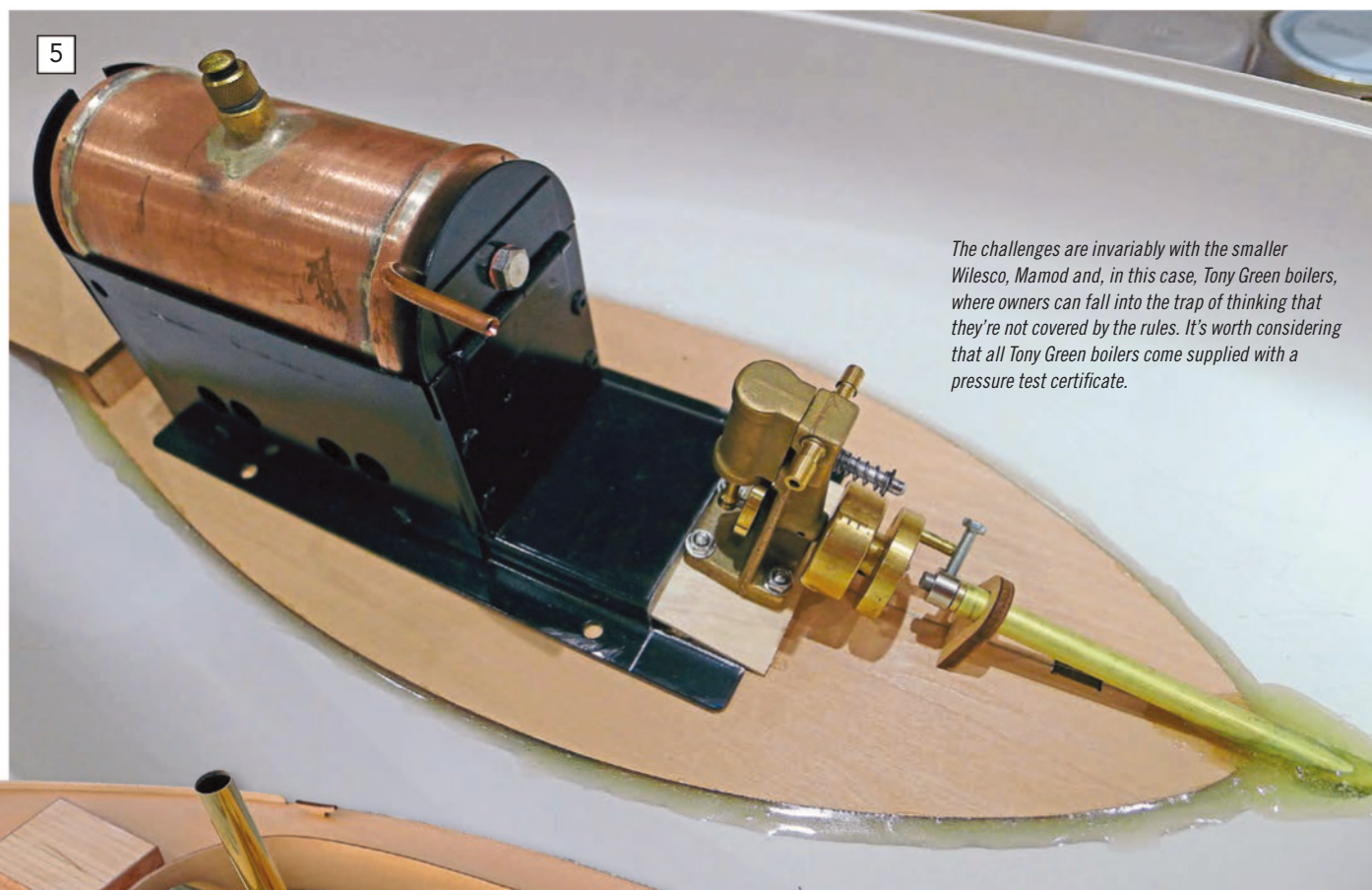
* **Photo 4** depicts a larger capacity Cheddar boiler, in this case used to provide steam for two oscillating engines. The pressure required for these engines and the larger capacity boiler meant that the boiler worked out over the 3 bar-litre limit and, therefore, must be dealt with accordingly.

Going back to the below 3 bar-litre boilers and Volume 2, we now turn our attentions to

the small boilers that we might be tempted to think don't require testing. For the first time in Section 3, the 'Definitions' section of the book, we see two different types of small boiler identified: the LO type and the LS type. These are described as follows:

* "Class LO: Low pressure boilers whose outlet is always open, i.e., there is no regulator or stop valve and the cylinders are of the conventional oscillating type where they are held against the port by a spring. They may be fitted with a spring-loaded

When you need both the capacity for duration and the pressure to power twin oscillating engines, the boiler may well have to be classed as above three bar-litres and therefore be covered by the requirements of Volume 1.



The challenges are invariably with the smaller Wilesco, Mamod and, in this case, Tony Green boilers, where owners can fall into the trap of thinking that they're not covered by the rules. It's worth considering that all Tony Green boilers come supplied with a pressure test certificate.



The boiler in this configuration is classed as a LO boiler as it doesn't have a stop valve. With such a low-grade heat supply from solid fuel tablets, the steam escaped through the engine port face as fast as it was being generated.

"We should all be familiar with the testing regime required for our own particular boilers"

reversing valve (such as was used by Bassett-Lowke or Mamod). They shall be fitted with a Safety Valve."

* "Class LS: Low pressure boilers whose outlet can be closed by a regulator or stop valve, or which feed directly to a piston or slide valve cylinder. They shall be fitted with a safety valve."

Low pressure boilers are defined as a working pressure of 2 bar or below. Very basically, then, we have the following boiler types:

- * 3 bar-litres and above
- * Below 3 bar-litres
- * Class LO, below 2 bar working pressure without a shut off valve
- * Class LS, below 2 bar working pressure with a shut off valve.

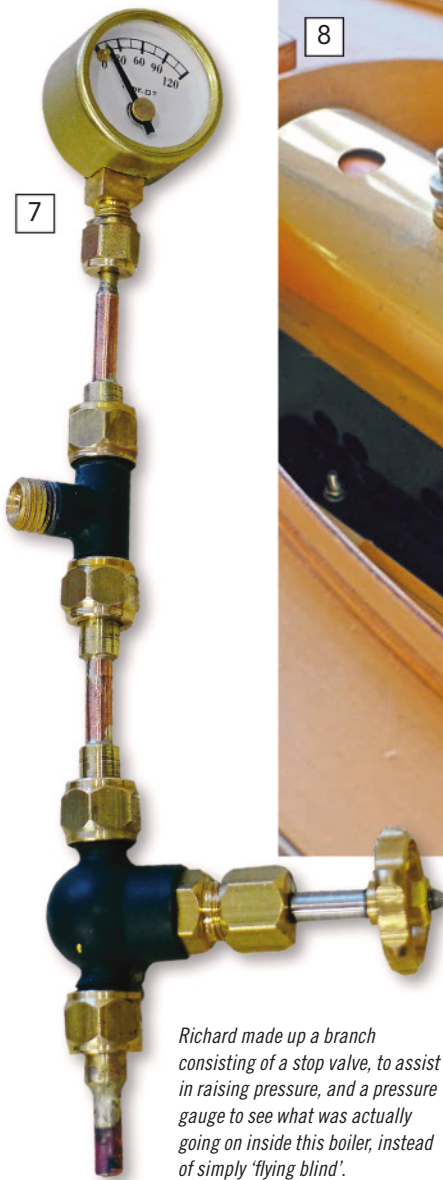
All these boiler types are covered by the Test Code, and all have a clearly laid down procedure for testing, as described down in Volume 1 and Volume 2 of the book, so we should all be familiar with the testing regime required for our own particular boilers.

As a practical example, a few years ago I fitted a Krick Anna model with a Tony Green Unit boiler and a 'Tiny' oscillating engine, which was a low pressure, solid fuel fired, boiler without a shut off valve. This boiler would then have been a Class LO boiler (see Photo 5). I found that raising pressure in this

original configuration was very difficult from cold, as the steam was escaping through the engine as fast as the boiler was trying to raise it (see Photo 6). So, I fitted a stop valve and pressure gauge assembly (see Photo 7) to enable pressure to be raised. I therefore changed the boiler to a Class LS (see Photo 8).

Test procedures

Now that we're able to identify our boiler types, we're better able to determine what testing procedure is required. Again, this is all laid down in the code books.



Richard made up a branch consisting of a stop valve, to assist in raising pressure, and a pressure gauge to see what was actually going on inside this boiler, instead of simply 'flying blind'.



- * 3 bar-litres and above: all test procedures are as laid down in Volume 1 of the Code.
- * Below 3 bar-litres: all test procedures are as laid down in Volume 2 of the Code.
- * Class LO boilers: if you refer to Section 14 of Volume 2, the procedure for testing Class LO boilers is set out in paragraph 14.1.1
- * Class LS boilers: If you refer to Section 14 of Volume 2, the procedure for testing Class LS boilers is set out in paragraph 14.1.2

LEFT: With the new branch fitted, the boiler did actually raise pressure successfully and the solid fuel tablets were sufficient to maintain it. With a stop valve fitted, the boiler is now classed as a LS boiler.

In conclusion

The testing procedure and boiler definitions are all laid down in the Orange Book. It is, therefore, every steam model operator's responsibility to at least be familiar with the rules applicable. Copies can be downloaded from the member's area of many of the affiliated organisations' websites, e.g., what was The Southern Federation of Model Engineering Societies but is now known as The Federation of Model Engineering Societies, or The Northern Association of Model Engineers, while hard copies can be obtained from any steam tester. Again, contact the same affiliated organisations to obtain the contact details of your nearest tester. The Code can also frequently be obtained at various model engineering shows around the country.

As a final thought, and to answer the question referred in the introduction to this article, all boilers require testing, from the largest we might find in a model boat right down to the smallest desk top examples (see **Photo 9**). This shouldn't be a difficult or an onerous task. Class LO boilers only require an annual steam test, which can very quickly and easily be conducted. Prior to these boiler types actually being identified in the latest Code, I still actively encouraged owners of even the smallest and simplest boilers to have a quick annual test; if for no other reason that having the peace of mind that the safety valve actually works, and the boiler is therefore safe to operate. ●



Basically, the answer to the question "Which boilers require testing?" is simply "All of them – from the biggest we're likely to find in a model boat right down to the smallest!"

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Your Models

Whether you're highly skilled and experienced or completely new to the hobby, you're definitely invited to this launch party! So please keep the contributions coming by emailing your stories and photos to editor@modelboats.co.uk

Nonsuch

Some time ago I built a Zulu (as featured in Model Boats). Researching the history of these vessels proved interesting. It's rumoured that the design for the Zulu came about when a fisherman from Lossiemouth married a lass from Moray Firth and an agreement couldn't be reached about whether the new family fishing boat planned should

be based on a Fifie or a Scaffie. The eventual compromise was that the bow would be based on a Fifie but the stern on a Scaffie – a very strange concept and yet the new vessel (which they christened, rather appropriately, the *Nonsuch*) proved a great success and more like her were built.

I know a motorised version, the *Mighty Zulu*, was featured as a free plan (from

Jim Pottinger) in the February 2022 issue of Model Boats, but my 'plank on frame' constructed model (which I've named, of course, *Nonsuch*) was based on plans I obtained from the National Science Museum, London. And further research, while working out the detailing I needed to incorporate into my model, provided lots more in way of fascinating insights and funny stories.

I built to a scale of 1:24, which has resulted in a model measuring 1,020 mm (length overall, with bowsprit) x 1,610 mm x 277 mm. She sails very well, without additional keel! Well, OK, yes, she can be a 'drifter', but then the real vessel could be, too, so I understand.

CHRIS LADEL
EMAIL

She's gorgeous, Chris – and those dark red sails are just beautiful. I absolutely love her. Ed.

Chris Ladel's delightful 1:24 scale build of Nonsuch, based on plans supplied by the National Science Museum in London.



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Having read with interest Part 1 of Dave Wooley's *Seagull* conversion two-parter last month (which concludes with Part 2 in this issue), Mr Baker has kindly shared his own impressive build of HMAFV *Seal*.

HMAFV *Seal*

I was interested to read Part 1 of Dave Woolley's article on his model of the RAF launch *Seagull* in last month's issue.

A couple of years ago I build a model of HMAFV *Seal*: the lead ship of this small, four vessel, class. The RN Bird class was developed from it.

I built my model on a 40in glass fibre hull. It has twin brushed motor power, with twin ESCs and screws. The crane works, as does the opening transom weapon recovery door.

It's a good, usable model and looks great on the water.

Unfortunately, mine cost rather more than Dave's budget!

Congratulations on your recent editions of *Model Boats*, the mag is going from strength to strength.

R.H. BAKER
CANADA

She's splendid, Mr Baker; you've definitely got our seal of approval! As for expenditure, it's worth remembering Dave

only had to cover the cost of materials/parts required for the conversion, and that he was also able to bring the project in on a very tight budget by recycling various bits and pieces from previous projects. Oh, and by the way, thanks for your kind comments on the mag – glad you're enjoying it! Ed.

HMAS *Diamantina*

Having read your fine *Model Boats* magazine over many years, I thought I would send you this story, along with some photographs, about the 1:72 scale model of HMAS *Diamantina* (the last River class frigate left in the world, which is currently in dry dock Southbank Brisbane) I am putting together.

I have been at this model for three years to date, spending time on it when I can.

The hull is an APS (Allan Pew) moulding that I got from Allan in Australia some years ago. The decks and superstructure are made of evergreen styrene and a few parts are 3D-printed.

HMAS *Diamantina* ended her naval career as a survey ship in the Royal Australian Navy and is now owned and cared for by the Queensland Maritime Museum. I, however, am attempting to represent her 1945 design,

when first launched by the shipbuilder Walkers Engineering of Maryborough, Queensland. Naturally, however, as the ship has been chopped and changed so much over the years, this has involved a fair bit of research to get right. Fortunately, with the help of



Sig Hen's brilliantly represented and rigged model of the beautiful three-masted barque Belem.

Belem

I am a Norwegian modeller, who enjoys the magazine in general and the Your Models section in particular. So, I thought I would share a photo of my model of the French school ship *Belem*.

She was originally built as a display model, but by cutting away the roof on the main and the aft hut I was able to place two sail winches, battery and

receiver in the main hut and a rudder servo under the rear hut. This way I could direct the two masts independently.

I have also mounted a motor, even though the model sails fairly well.

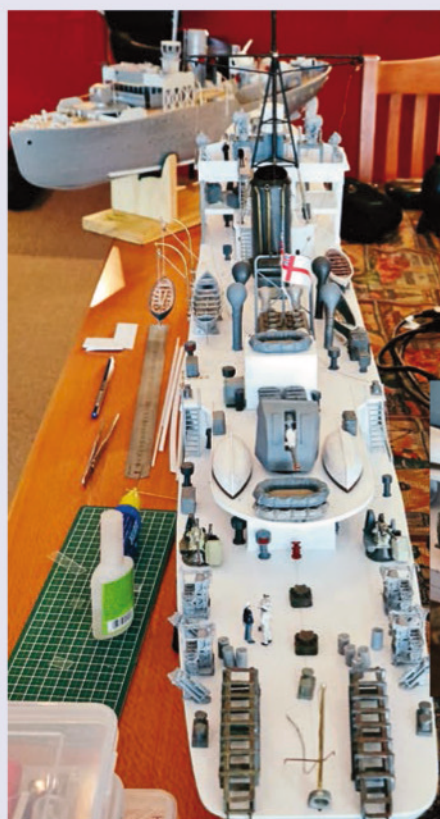
I had to ballast the model with approximately 2.5 kilos of lead, placed some 10cm under the keel. The model measures in at approximately 1m 10cm,

not including the bow spear and weighs approximately 5 kilos.

**SIG HEN
EMAIL**

What a very pretty model, Sig, and, I've discovered, a really interesting subject, too. A quick bit of online research reveals that Belem first operated (from 1896) as a cargo vessel running goods from South America and the West

Indies to France, before being converted by Hugh Grosvenor, the 2nd Duke of Westminster, as a luxurious pleasure yacht (in 1914), sold on the Guinness family (in 1922) and Venetian count Vittorio Cini (in 1951) before finally being restored to her original condition (in the late 1970s) for use as a sail training ship. And from the photos I've looked at, you've captured her beautifully. Ed.



A work still in progress but, we're sure you'll agree, shaping up superbly: George Empson's 1:72 scale build of HMAS Diamantina.

Float-a-Boat, a model boat parts supplier in Australia, I have managed to source most of the different bits and pieces required.

As mentioned, there is a long way to go yet. Currently everything is just sitting there until I am happy with the way it should be before everything is marked and removed; the decks set down; the hull, etc, masked and painted; and everything set permanently in place. The inner hull has been braced and beams fitted. This will only be a static model.

I live in a small village in the central high country of the South Island, Lake Tekapo,

New Zealand, a long way from the ocean, so, when snow lies around the house and we get minus 5 to 10 at night (as we are currently experiencing), it's good to have a modelling project to enjoy while staying indoors close to the log fire.

**GEORGE EMPSON
LAKE TEKAPO, NEW ZEALAND**

It was so good to chat with you via email, George. I am often guilty of cursing technology, but it's truly wonderful to be able to communicate with people on the other side of the globe at the click of a button and I really enjoyed seeing the photos of the spectacular scenery in your part of the world, and also, of course, the pics shared here of HMAS Diamantina. Although you point out she isn't finished yet, she's looking fabulous. Ed.





George's stunning scratchbuilt 1:12 scale Fisher 34 – a vessel he's very familiar with, having also owned a 1:1 scale version.

Fisher 34 and Colin Archer RS1

I always enjoy the Readers Models section of the mag and so have decided to share some of my own work.

The first, is a 1:12 scale Fisher 34 motorsailer I scratch built by modifying the Model Boats' Fisher 46 plan (which can nowadays be ordered online via Sarik Hobbies – Ref. MM1359). I was also lucky enough to own a full-size (*i.e.*, 34ft rather than 34-inches) version.

The second is my 1:15 scale model of the Colin Archer RS1 constructed from a Billing Boats kit. I believe this vessel was originally designed as a whaling boat but was later developed into an offshore rescue craft for Norwegian fishermen in the early 1890s. Fellow MB forum members have shown much interest in this model as none of them have seen a version that includes a scale interior and embedded radio control equipment before (although, of course, that's not to say no-one out there has done the same). As the kit contains no info regarding the detailing to the interior of this historic rescue vessel, I drew up and built the interior for my model by referencing photos of the



Built from a Billing Boats kit, George has added both R/C equipment and some astonishing detail to his model of the Colin Archer RS1, including a perfectly matched to the original and illuminated interior. A hull purchased from Sarik Hobbies formed the basis for the charming little Nordlandsjolle dinghy.

original, and still in use, 1:1 Colin Archer, stationed near Oslo, Norway. Thanks to paint colour coding, I managed to match the green I used for the model's interior with the exact shade featured in the full-sized vessel. The correct paint code was actually sent to me, on my request, by the present skipper of the RS1 Tor Erling Gransæther, who operates RS1 for the Colin Archer Museum. The model's interior also includes built-in Ikea decorative Christmas LED lighting. The dinghy was modified from a Sarik 9-inch dinghy hull that fortunately resembles the RS1 dinghy, which is an old design from northern Norway call a *Nordlandsjolle* (which roughly translates into English as a 'North country jolly').

These two models have taken a total of three and a half years to complete and, for anyone interested, I've posted hundreds of construction photos on the Model Boats forum – each vessel having its own separate thread. I use the name "gecon" (an abbreviation of George Edward Connery) when posting on the form, although members know me as George.

Both models can be also viewed on You Tube, and links were kindly produced for me by fellow member Richard Simpson and appear within the posts on my forum build log.

**GEORGE EDWARD CONNERY
NORWAY**

I'm not surprised your fellow forum members have pressed you into submitting some photos for inclusion in the mag, George; these are simply stunning builds. I thoroughly enjoyed, and recommend, checking out the full gallery of build images posted on the website, too. Ed



Your Letters

**Got views to air or information to share?
Then we want to hear from you!**

Letters can either be forwarded via email to editor@modelboats.co.uk or via post to **Readers' Letters, Mortons Media Group, Media Centre, Morton Way, Horncastle, Lincs LN9 6JR**



All buns glazing!

Hello from Rawdon MBC, Leeds! Having read the interesting feature by Richard Dyer in the August issue of MB, I noticed his reference to a lack of a card kit of the *Bismarck*. Well, if your readers have a taste for this impressive vessel, they may do well to visit Rawdon MBC, where the nearby village bakery will, each Saturday, have a treat in store for them: namely, a *Bismarck Bun* – see photo, not to scale!

This magnificent delight has some substantial features, including armour icing with almond flake shielding to the top deck; fore and aft mounted attack cherries; and a below deck core of almond paste. With an overall length of 25 cm and beam of 12 cm, it's often seen berthed in our house, where unfortunately its duration is short lived!

MIKE WOODCOCK
EMAIL

Ha, ha – love this, Mike! A definite first for Model Boats. More of a demolition job than a build, but one I'm sure a lot of us would like to sink out teeth into. Sorry about that headline, by the way, just couldn't resist. Ed



The Chairman of the Mirfield fundraising branch of the RNLI (left) receiving a cheque from committee member Mr Philip Bowker of the Kirklees Model Boat Club (right) at Wilton Park on August 7, 2022.

Funds raised for the RNLI, and more fun to come

On July 11, 2022, the Kirklees Model Boat Club Open Day hosted its first Open Day at Wilton Park, Batley, West Yorkshire since 2019 (see last month's Letters pages) and we're proud to say managed to raise £200 for the Mirfield branch of the RNLI (see attached photo of cheque being handed over).

While writing, although you've already kindly flagged up our September event in last month's Compass 360 news section, can we please just remind readers the Autumn Open Day will be taking place on September 11, 2022.

STAN REFFIN
KIRKLEES MBC

Bravo to you and all those Kirklees MBC, Stan, not only for all the hard work you put into your fund-raising efforts but also for being so proactive when it comes to promoting the club's activities and the hobby in general. Ed

Keeping things inclusive

I am waiting with bated breath for the next edition to drop through the letterbox. I never look at the website as I like it to be a surprise when I open the magazine and read the contents.

Over the time you have been editor I have noticed a change coming into the contents of the magazine that I heartily approve of. Like many other modellers, I love to read about models that have been built to a standard that I could only dream of reaching. These models are a source of inspiration, but they are not the standard of models you will sail alongside week in week out. We now, however, also see articles and descriptions of models that will never win cups, etc, at shows, but which represent the backbone of our hobby and the many people who, like me, will put their creations on the water whether it's red hot, freezing cold or blowing a gale! Let's see more, please, from what I like to call ordinary modellers.

Best wishes and please keep up the good work!

HARRY HITCHENES
EMAIL

Thanks for this lovely feedback, Harry. Much appreciated. Ed



The splendid parade of boats that took to the water to mark the Woodbridge Model Boat Club's 40th anniversary on August 17.

Woodbridge MBC 40th anniversary parade

This year marks the 40th anniversary of the founding of the Woodbridge Model Boat Club and so our chairman issued us with a challenge to get a parade of 40 model boats, made up of as many different vessel types as possible, on the pond at once. The date set for this challenge was Wednesday, August 17, 2022.

Anyone familiar with the boating lake at Woodbridge will be aware that trying to sail that many boats there at once is a tall order as, in estate agent's terms, it's "petite and bijou" – or, as the rest of us would put it, very small. You can see for yourself if you run a search for 'Boat Pond, Woodbridge IP12 4BB' on Google Maps.

On the day, a number of club members turned up from 10am onwards, some with what looked like a small flotilla of boats, and we all 'kept a weather eye open', as thunderstorms had been forecast to coincide with our exhibition. We were well outnumbered by members of the public, who had been tipped off by items in local newspapers and were, I think, hoping for mayhem.

At 11am a whistle sounded to start the parade around the lake in an anti-clockwise direction, with skippers instructed to go slow ahead and not to overtake the lead boat. I had taken my 6ft live steamer *Queen Alexandra* and was able to set off with the pack as I'd already warmed the boiler and raised steam. I never did figure out which

boat was the lead boat, and 'Queenie' was a nightmare to navigate on a small lake with so many other boats (live steamers invariably have a mind of their own)!

With around 50 boats proceeding under their own power and some under tow, it became rather a free-for-all at times, with a few collisions but no sinkings or serious damage. Yes, we did have a model *Titanic* on the lake, but it survived the day! Other skippers or members of the public helped out with any on the water 'problems'.

In spite of the threatening weather, all of the skippers and the public thoroughly enjoyed their morning, as can be seen from the photographs.

Details of the club can be found on the website at:

www.woodbridgemodelboatclub.org.uk

PHIL WOODBRIDGE

EMAIL

Congratulations to the club on its 40th and thanks for sharing these photos, Phil. Looks like everyone had a great time. Ed

Sourcing stanchions

With regard to Mr Thompson's query about etched railings featured on the Letters pages of Model Boats last month, I'm afraid I have bad news. I purchased the railings from 4D Model Shop many years ago, and I think, as they've not appeared in recent catalogues that they've been out of production for a while now. If Mr Thompson wants to check whether there any left in stock, the part number is SES37 '1:150 5 bar

railings'. I have searched on the internet for alternatives, as I'm sure he has, and there appear to be no alternative suppliers.

The not-so-bad news is that I have some left but plan to use most of them for another model. If Mr Thompson would like to let me know what length he needs, and I'll check whether I'll have enough left over.

The only other suggestion I can offer is to get some made specially. A few years ago, I had some 3-bar railings

etched for me by PPD in Scotland. PPD is not a model supplier, so doesn't have a catalogue of parts; it provides an etching service. You have to create the design to be etched yourself using a computer program such as Inkscape.

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ROY CHEERS

EMAIL

Thanks so much, Roy. Ed

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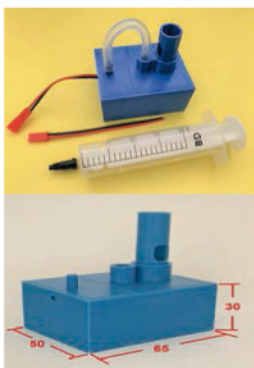
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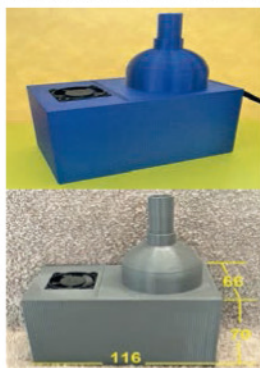
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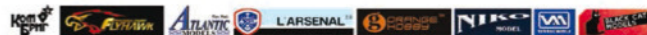
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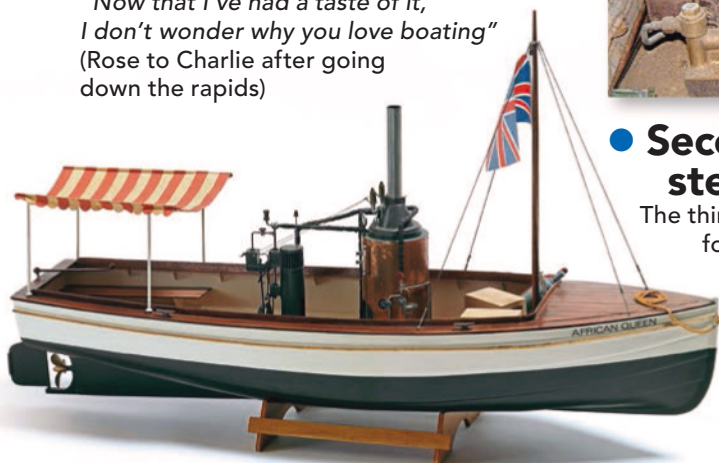
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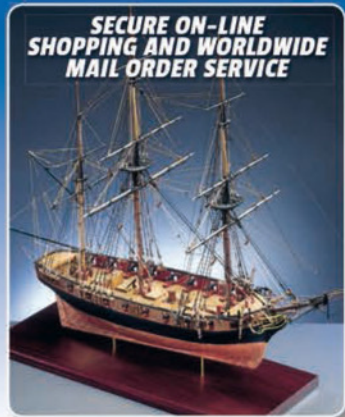
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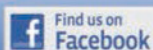
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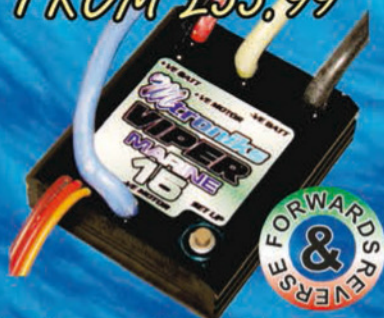
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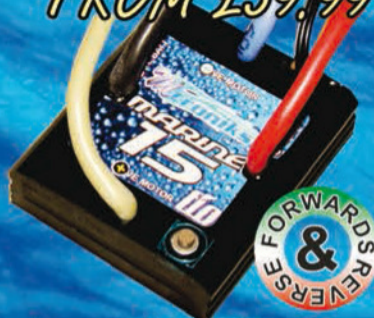
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