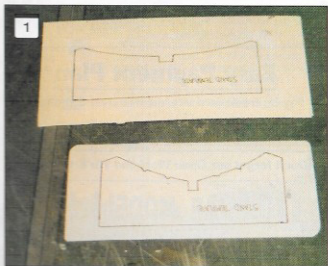




# Brede

This is the second model boat kit from a relatively new manufacturer, K&S Models from Devon. Kevin and Steve have been modellers for many years so they decided to put something back into the hobby with the intention of getting new people into a semi scale way of building models, their choice of subject at a nice manageable scale (1:20) is

TERRY SMALL reviews the Lifeboat kit from K&S Models



measuring 20ins long by 7.25ins beam, and is of a Brede lifeboat. They have put together a mixture of modern materials, styrene, plywood with fittings of both resin and white metal, along with a grp hull and superstructure, full size plan, template plan, transfers and instructions. They have done something of a first for us modellers and put more than 40 colour construction images, plus completed model pictures, on a CD, which you can view or print at your leisure - most useful and what a superb idea! The CD will probably also include some video footage by the time this review appears.

## Actual Boat

This type of lifeboat was designed to lie afloat at moorings at a station not requiring an all weather lifeboat, although Bredes can operate in virtually any conditions experienced at the stations to which they are allocated. It's based on a commercial hull design and the identifying features include relatively small size, a 'Pilot Boat', appearance and a fairly bulky wheelhouse - a shallow, slightly reversed sheerline - propellers not protected by any form of tunnels - grp construction, 12 were built, length 52ft, beam 12ft 2ins, speed 18.6 knots, range 140 nautical miles, crew of four, engines twin Caterpillar diesels - 203hp each - first built 1982, last built 1985.

## Construction

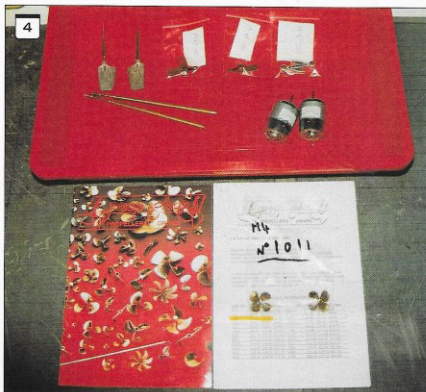
As with all my reviews the pictures can tell the story sometimes better than words. The first task is always to construct a suitable stand. A paper template is included for both stand ends, Photo 1, which just needs to be transferred to some suitable plywood. I used 7mm thick with 18mm square softwood for the separators, glued and screwed into position after placing hull on to it and happy that it fits the stand. It was then varnished all over to waterproof it.

Next job is to trim the hull down to the deck line as indicated on the sub-drawing (1A), Photos 2 and 3, then removing any flash or moulding defects - which I will say were very minor. An all-over very fine sand was then done to aid keying when final painting takes place! Last job is a good clean all over with warm mild soapy water to remove any release agent and left to dry thoroughly.

## Running Gear

There are four locating pins moulded into the hull to show where the rudder posts and shafts are located. Now with the aid of some masking tape to avoid scratching the hull moulding, drill a 5mm hole for the rudder posts, then file out





such that when fitting the posts they are a tight fit. Once again drill two 5mm holes for the prop shafts and with the use of a suitable round file gently file the hole at an angle to elongate it such that the outer shaft tube sits at the correct angle as per the plan.

The next task is to mark out and drill, then file to shape the oblong holes for the skegs to partly pass through the hull to the inside. Once again it's good practice when marking out to use paper masking tape stuck on the outside. This has two purposes, one to aid in measuring and better depicting marked-out lines, the other to prevent the drill bit slipping. Also it helps to leave a nice clean hole. Once happy I dry assembled into position both shafts, props, and skegs to work out the best position for the motors, and cut to shape two softwood mounting spacer blocks.

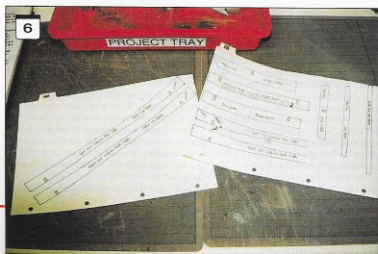
The motors and mounts by the way did not come with the kit but were supplied at extra cost by K&S Models, these being 385 size, but much more efficient and extremely low current drain. The propellers are a handed pair of 4 blade 4mm thread from Prop Shop, part numbers 10 and 11. **Photo 4.**

At this point and for the last time, I dry assembled everything in position, checking many times that all was at the correct angle and in line. Once happy gluing could commence. The rudder posts went through the same procedure making sure all the time they remained upright. Now when it comes to gluing the posts on the inside I use a piece of plastic scrap tube, 25mm diameter, cut down to 10mm high to put around the post inside the hull. This acts as a mould box, **Photo 5**, such that there is a good strong thickness of epoxy holding the tube in place. Also roughen up the outside part of the rudder post tube with a file to help the 5-min epoxy glue or P38 to do its job. The next task was to make up the rudder servo box mount and radio tray as per the plan from the light-weight ply, which if constructed properly should just slot into place and be held down with a single screw as this needs to be removable. I also coated it with sanding sealer or varnish to protect from water if you are unlucky to get some inside.

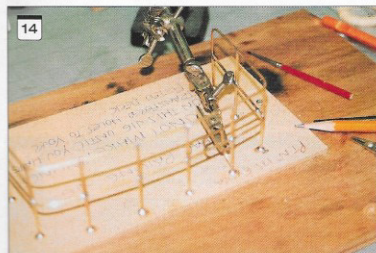
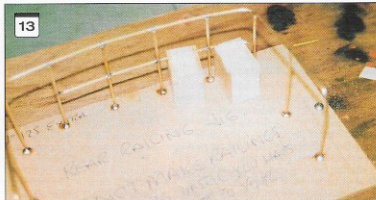
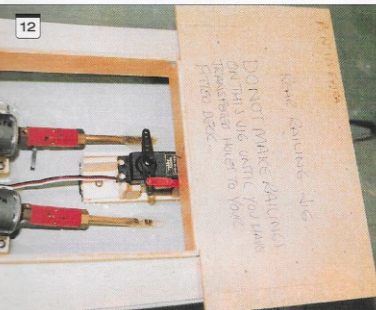
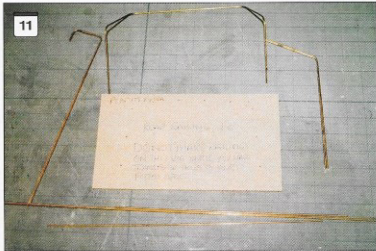
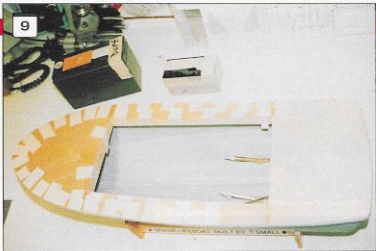
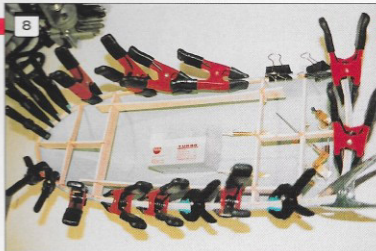
## Deck

The deck beam, hatch coaming, servo tray template shapes to be cut out are transferred on to a sheet of 1/8in Lite plywood which is included in the kit. It pays to cut the shape accurately with the use of a fret saw, but I would also suggest you add on to the length say 2mm to each end as the moulding thickness could vary slightly. By allowing more material each end of the beam it can be trimmed to a snug fit, making sure they are in the correct positions inside against the hull sides which can be finally trimmed to size in situ. **Photos 6 and 7.** When installed into place these all interlock together and are glued with 5-min epoxy.

Now all around the edge of the inside of the hull, 3/16in square balsa requires gluing







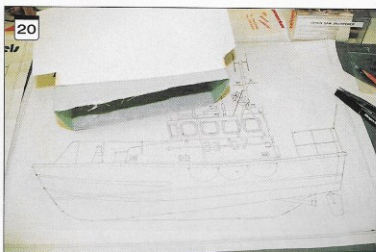
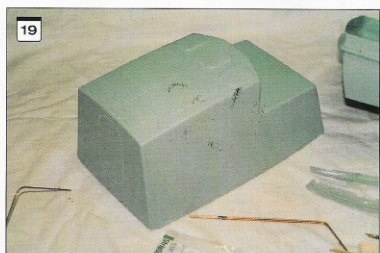
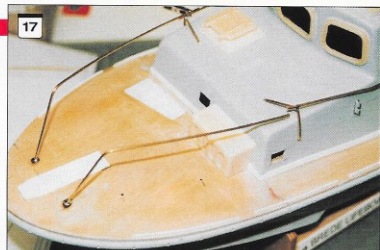
in place for the deck to sit on, **Photo 8**. The deck is made up from 1/32in sheet ply in four parts, two sides, front and back. This was placed in position, then I ran a pencil around the outside edge of the hull to obtain the deck shape to be cut, placed it in position and trimmed to fit, then glued with 5-min epoxy, clamped down with masking tape, **Photo 9**. On the outside of the hull at the bow end there are two additional resin cast spray

rails, **Photo 10**. These are glued in place with Superglue but be careful not to bend them too much to fit curve of hull. You should also see from the side photos that I have drilled 1.5mm diameter holes at equal intervals along the length of the 'D' shaped rubbing strip on the top of the hull moulding to represent bolt access holes. (A little extra detail gives that personal touch don't you think?)

## Railings

This is the part that I think that makes or breaks a model, because if all the uprights or stanchions are not at the same angle it looks awful.

The material pack contains a building jig plus pre-formed parts which were then put into three sections - bow, stern, superstructure. I'll take the stern section first as it's a self contained unit. Select the pre-drilled stern template jig and the pre-formed top railing



section, **Photo 11**. Next measure height from the drawing for the railings and cut the uprights to that measurement, plus the thickness of the jigboard, in this case 6mm. This would allow for the brass wire to be secured to the deck. But before we start making up and soldering the railings we need to use the jig as a template to drill the holes in the deck; this needs placing on the stern deck then centralising, **Photo 11**, with the marked leading edge against the rear hatch coaming - held down with tape and drilled through with a 1.4 drill bit, this being slightly smaller diameter than the brass rod and which will make for a secure fit of the uprights when ready. Now remove the jig to a suitable surface for assembling and soldering of railings.

Next cut the appropriate number of uprights (remember to add the thickness of the jig board 6mm) place them in the holes and with the use of an engineer's square or suitable object make sure each one sits upright. Now with some small crocodile clips hold the top 'U' shaped bent brass rail to the top part of the uprights and once happy pre-flux with Carrs Liquid Flux and solder. The flux should help to make a very neat joint as long as not too much solder is applied, **Photos 13, 14 and 15**.

Note the round upright stanchion deck bases are small brass washers not supplied in kit and are available from any good hardware store. Next cut at the correct lengths some brass rod for each of the cross pieces. To obtain a straight and consistent line whilst soldering in position, use a block of scrap wood.

The lifebelt supports and fender bays are a little more tricky. I used a tool called a Helping Hand which is basically a crocodile clip on an arm and swivel base. Remember when soldering do not apply too much heat or the brass will become very soft. Also once all is finished clean up joints with a fine wire brush (suede shoe brush) or emery paper and clean off flux with white spirit.

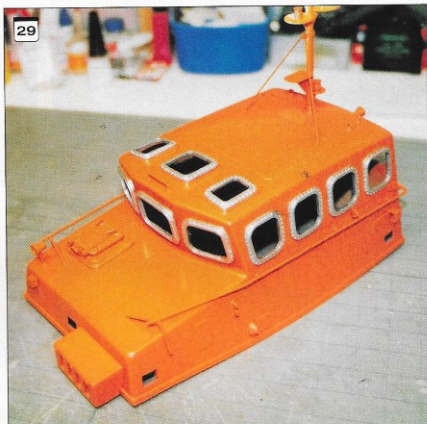
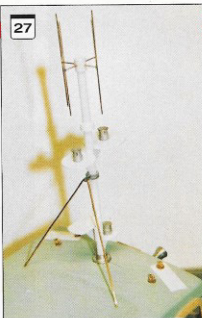
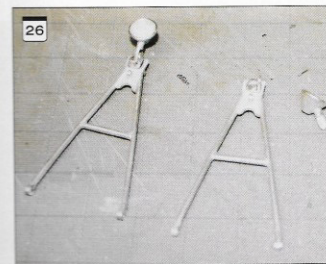
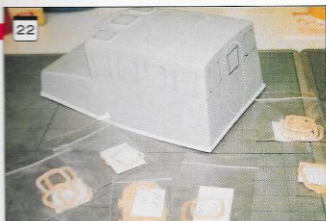
Other little details like flagstaff base, exhaust outlet guards, can be fitted, **Photo 16**. Corner fillets were from scrap rod and flat. The bow section, **Photo 17**, is next, which is a little easier as this can be made up whilst flat on the bench then hand bent to shape as per the plan. Remember there is a left and right rail assembly to build. Last section is for the superstructure using 0.8mm diameter brass rod cut and soldered to shape or bent as per plan, then fitted, **Photo 18**.

## Superstructure

This comes as a super one piece light-weight grp moulding, **Photo 19**, which requires trimming to follow the deck shape, **Photos 20 and 21**, then all window and vent opening







positions marked on, **Photo 22**, by using the actual window/vent fittings. Note window internal opening size needs to be bigger all round by 1mm to allow for the glazing inside to fit into. Now to do the cutting part I use a small Minicraft or equivalent cutting disk mounted in a Dremel drill, and just cut through each marked line. Be warned. Wear a dust mask and protective glasses as it will be very dusty. All my window openings were cut out in less than 25 minutes, then tidied up with file, and once all the openings are at the correct size it pays to place some cardboard inside the superstructure and draw around each window opening to obtain a template of the glazing size to be cut, ready for future gluing in after painting. **Photos 23 and 24.**

#### Fittings

These come in either white metal or light-weight resin and I can honestly say they are top quality, very little cleaning is required if any in some cases - although great care will be needed when handling the window frames as resin is brittle. All of these were assembled then glued into position with Superglue before or after painting.

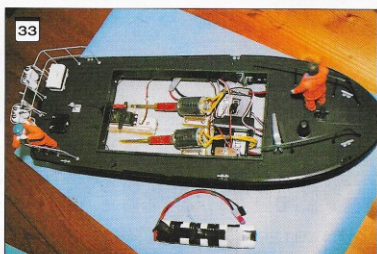
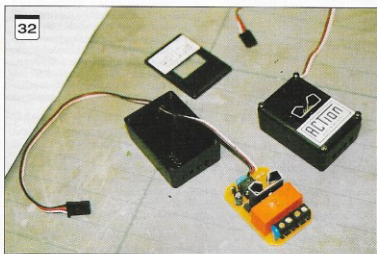
The must round plates are all pre-cut to size from styrene and as some of the mast poles - it's just a matter of assembly, **Photos 25 to 28.**

#### Painting

Now as you can see from the photos I paint some parts on and some off the model. If there are lots the same colour it pays to mount them on some scrap wood and do them all at the same time. On this model I used Halfords acrylic sprays: Ford Royal Blue, VW Brilliant Orange, Red Oxide Primer and Satin Black. Any fine detail is picked out with a brush using Humbrol paints - like the window frames with aluminium. **Photo 29.** The deck was painted with Humbrol Matt Black mixed with Badger Aluminium Oxide abrasive powder to obtain a fine anti-slip deck finish.

This time I had an added problem due to poor weather (rain and damp and lots of it) and I could not do this job outside, so resorted to inside and the appropriate problem of dust! A cure was sought which resulted in the purchase of an extraction system to the outside world, **Photo 30.** This allowed me to spray any time of the day with no smell or over-spray dust. Fantastic - who cares what the weather is now? For more info visit [www.airbrushes.co.uk](http://www.airbrushes.co.uk) or phone 01903 266991.

The very last part is to add all the transfers, **Photo 31**, then varnish all over.



## Radio

This was the problem area. Not only had I the weight aspect to consider but also space, so I opted for two small speed controllers (Condor 110 kits from ACTon electronics, Photo 32). These were very easy to construct and worked first time, plus they are small in size and light in weight - well done ACTon. The receiver was a standard size 4-channel Futaba type with the aerial lead run around the hatch opening sides. Motors were as supplied by K&S, rudder a standard Futaba servo. The batteries are a home-made pack of 10 x 750mah cells, which gives me 12 volts total with a 4.8 volt feed from four of the middle cells for the receiver, Photo 33.

## Conclusion

This was a superb little kit to build and plans were good. I found the instructions missed some things out but the CD with the photos on made up for it.

On the water testing was very good, she is responsive and turns well, a really lovely little regatta boat. Running time was 20 minutes which should improve with more charge and discharge cycles as I was using a new battery pack.

The only problem I have with my model is that she sits a little below the water-line, and I can't make her any lighter, not having needed

any lead ballast, so beware, weight is very much an issue.

The 1:20 scale resin light-weight figures I have added. In my opinion they look right on a lifeboat, and are from Bow Wave Marine Models part number E50\*20, E51\*20; and excellent service on 01278 459837.

This superb lifeboat kit is available direct from K&S Models, Tel: 01271 325205 or email to sales@ksmarinemodels.co.uk. The kit price is £124.99 inc. VAT and carriage

paid, which is excellent value for money. Trade enquiries are welcome.

(According to K&S, the ideal weight of 1500 grams is achievable with careful planning of the internal layout and selection of lighter radio gear - however they have models weighing 1680 grams which perform well and give approximately 40-50 minutes on 1800 NiMH batteries. New resin window frames are also lighter and save 85 grams. And no doubt Terry's light-weight crew must weigh something! Ed.)



## Special Offer to Model Boats' readers!

The first 25 orders placed from this issue of Model Boats (you must quote MBR002) can be had for the amazing price of only £99.99 - and this includes carriage to UK mainland - with a supplement for NI, Northern Scotland and Overseas. In addition to the special price there will also be a voucher for the next kit to be purchased at the same price.

Finally, a new product is a Brede half-kit - yes, half-kits with special mouldings to enable the builder to mount them on display boards just like the old days. These are made to order and cost £79.99 inc. VAT and carriage. These will not be available in retail outlets. Remember to state port or starboard. Order line is 01271 325205.

