



Snipe Sailboat

1"=1'-0" Scale Model Wood Construction Kit

dumas products inc.

909 E. 17th Street
Fax (520) 620-1329

Tucson, AZ 85719
Voice (520) 623-3742

dumas@azstarnet.com

Kit no. 1122

Included in this kit...**Die Cut Sheets**

Qty.	Name	Material	Contents:
1	DC-1	1/8" Mahogany Plywood	Stand A, Stand B, Frames 2,3,4,5; 1-J, 2-J, 3-J, 4-J
1	DC-2	1/8" Mahogany Plywood	S-1, K-1, K-2, Frame 1, S-1
1	DC-3	1/12" Mahogany Veneer	K-3, Transom, K-3
1	DC-4	1/12" Mahogany Veneer	Sides
1	DC-5	1/12" Mahogany Veneer	Bottoms, Splash Boards
2	DC-6	1/12 Mahogany Veneer	Deck, 2B, 4B
1	DC-7	3/32 Birch Ply	Rudder, Centerboard

Sticks and boards

Qty.	Material	Usage:
4	1/16" x 1/8" Spruce x 18"	Rub rails, Jack wire spacers
3	1/8" x 1/4" Hardwood x 24"	Mast, Boom, Tiller, Centerboard cap
2	1/8" Sq. Hardwood x 18"	Chines
2	1/4" Sq. Hardwood x 14"	Jig stringers, Mast step
2	1/16" Ply, 3/8" x 20"	Floor boards
1	1/12" Veneer, 1/2" x 12"	Deck battens
2	3/8" x 1/2" Hardwood x 12"	Stand legs and supports
2	1/4" Dowel x 8"	Stand cross pieces

Miscellaneous

Qty.	Material	Part no.	Usage
1	.032 Wire x 6"	39-178	Rudder pintles
2	.041 Wire x 18"	39-287	Jack wires, mast pin, gooseneck, jib needle
1	1/16" Brass tube	27-192	Rudder bearings
1	Straight pin	39-193	Tiller pivot
7	Screw eyes	23-111	Deck fittings
18	Eye pins	28-162	Mast, boom & deck fittings
1	Jump ring	28-161	Traveler ring
1	Dacron cloth		Main Sail
1	Dacron cloth		Jib Sail
1	Plastic strip	51-151	Bowsers
1	Dacron string 17ft.	59-109	Rigging

Tools and additional materials needed...

Thick & thin Cyanoacrylate Adhesives

Hobby knife

Sandpaper and sanding blocks

Wire cutter

Spring clothespins

Cyanoacrylate accelerator

Razor saw

Small drill bits (#67, #60, 3/32, 1/4

Pliers

Finishing materials to suit

Snipe Construction

Adhesives

In the past few years, cyanoacrylate "instant" glues have become the product of choice for building most models. We use them for over 75% of our building. There are different formulas that exhibit differing set times and gap filling properties. We use both the thin "fast setting" and the gap filling slower setting formulas. In addition there is a aerosol accelerator that can be applied to the slow setting formula to make it set on command. These cements allow you to build with a minimum of elaborate clamps. We get by with just our hands and a few clothespins. We modify some of our clothespins to reach into tight quarters by reversing the orientation of the wood parts as can be seen in some of the photos.

Finish as you build...

Most model builders mentally separate the construction and finishing phases of a models creation. We seem to be so eager to make those little flat pieces of wood look like a boat that we skip over opportunities to make our total effort easier and better looking. For example, we usually don't do any significant sanding until the model is fairly far along. Most of the sanding that we have to do is much easier to do before the assembly is begun.

Finishing

I also do some finishing as I build. I like to use lacquer sanding sealer and semi-gloss clear to finish this type of model. When it looks like I could save some time or effort by applying a coat of sealer, I do. The only caveat is if you will be cementing a part to a finished surface, sand the surface first for best adhesion. You might want to skip ahead to the section on finishing for some thoughts on that process. Some finishes require more attention to detail when you build.

1. Sand Die Cuts and Identify

Sand all of your die cut sheets on both sides before removing any of the parts. Use the parts locator drawing to identify all of the parts. Write the part name or number on the part in a place that won't be visible on the finished model.

2. Assemble Keel

2.1 Cement K-1 and K-2 to one K-3

Cement K-1 and K-2 to one of your two K-3's. Align the parts as carefully as you can. Pin or weight the parts down on a flat surface until the glue dries. See Fig. 1.

2.2 Cement second K-3 to Keel assembly

Cement the second K-3 to the parts you just glued together aligning them as carefully as you can. Pin or weight to a flat surface until dry. See Fig. 2.

3. Assemble Jig

Dry fit (without cement) the four jig frames (1-J, 2-J, 3-J and 4-J) to the two 14" long pieces of 1/4" sq. hardwood. Use your die cut S-1 sheers to space the jig parts as seen in Fig. 3. When satisfied with squareness and spacing, cement the jig parts to the hardwood.

NOTE: DO NOT cement the S-1 Sheers to the jigs. Remove the S-1 Sheers from the jig parts afterwards.

4. Assemble hull framework

4.1 Tack glue frames 1 through 4 to keel

Slide Frames 1 through 4 onto the keel and then place this assembly upside down on the jig. Tack cement the frames to the keel. The term tack cement means to apply just enough glue on the frames and keel to keep them from disassembling while you complete the next couple of steps. Frame 5 will be added after the sheers are cemented to the keel and frames 1 through 4. See photo 1.

4.2 Fit sheers to Frames and Keel

Tape the two S-1 sheers together where they meet at the bow. The tape should not be on the surface that touches the keel. Fit the sheers to the frames and keel and place the framework upside down on the jig. Cement the sheers to the frames while you hold the parts down on the jig. I use thick ca and spray accelerator.

4.3 Fit and cement Frame 5

Since Frame 5 is raked back at such a steep angle you will have to trim the notches on S-1 for a good fit. I also angle the top of the sheer notch in Frame 5 for a better fit against the bottom of the sheers (S-1). The bit of S-1 that extends aft of Frame 5 will be trimmed off a bit later. We put this "keeper" extension on the sheers to aid assembly. Frame 5 should fit tight against the rear of the keel assembly. I also angle the top of the notches for the chines. See photo 2.

4.4 Seal this structure

I like to brush a coat or two of sanding sealer on the structure so that I can coat the undersides of the sheers well.

5. Cement on Chine

5.1 Pre-sand for nice appearance later

The Chines (1/8" sq. hardwood) will be installed next. If you want a prettier model, sand all four sides of this wood smooth before you glue it in place. Some sanding and fitting of the chines will be needed at the front where the chine fits into the notch in the stem. It twists slightly as it runs aft from the keel. The outer face of the chine should line up with the side of the frames. "

5.2 Cement chine in place

I cement the chines on one at a time starting at the bow. The stick is cemented to the keel and Frame 1 and allowed to dry, then it is bent back to Frames 4 and 5. and cemented in place. Finally cement the chine to frames 2 and 3. See photos 3 and 4.

6. Trim off sheers chines and keel flush with rear of Frame 5.

When the glue on both chines has dried, trim off any excess wood aft of Frame 5. This includes the sheers (S-1), the chines and the little stub of the keel protruding through the center notch of Frame 5. Sand smooth.

7. Cement on Transom cap

Cement the mahogany veneer transom cap to the rear of Frame 5 to hide all of the ugly notches and end grain.

8. Cement on deck battens

Cement the 1/2" wide mahogany veneer deck battens in the notches in the tops of Frames 1 & 2 and 4 & 5. These battens will support the seam in the center of the deck when it is installed later. Cut a piece of 1/4" sq. just over 5/8" long hardwood from the jig stringers to use as the mast step. Fit this wood below the deck batten, between it and the top of the keel to support the mast. See Fig. 4 and photo 7.

9. Cement in floor supports

Cement two die cut floor supports (2B) to the rear face of Frame 2 beside the keel. The bottom edge of the 2B's should line up with the bottom of Frame 2. See Figs. 4, 5 & 6.

Cement two 4B floor supports to the front face of Frame 4, aligning the bottom edge of the supports with the bottom of the frame just like Frame 2.

10. Seal structure

I like to apply another coat of sealer to the wood that will be visible inside the boat now while it is so accessible. Once the planking is glued on it will be harder to do a neat job.

11. Hull sides

11.1 Block sand for sides

Next you need to block sand the sides of your framework so that the side planks will fit intimately against all of the framework. We rubber cement 60 to 80 grit sandpaper to blocks of scrap plywood or particle board. Use the sanding block to bevel the edge of the sheer to match the angle of the frames. The front of the keel (stem) also needs to be beveled to a knife like edge. Take enough time for this step. These steps where you block sand your boat in preparation for the installation of the skin panels or "planks" are very important to the final appearance of your model. Give yourself enough time to do a good job. I usually kind of scrub off the wood with 3/4" dia. circular motion rather than trying to make long lengthwise strokes with the sanding block. The long strokes are harder to control and often snag on one of the frames. When you have finished sanding, the hull side planks should contact the full length of the sheer and chine in addition to touching the side edge of each frame. The results of the sanding can be seen in photos 5 and 7.

11.2 Attaching sides

The hull sides are attached to the frame one side at a time. To eliminate an extra fitting operation we lap the second side over the first at the bow rather than beveling the sides for a mitered fit. If your sense of craft tells you to miter the sides at the bow, be our guest.

11.3 Pre-form sides

The mahogany veneer supplied for the sides, bottom and deck can sometimes be quite stiff. If your wood seems too stiff to bend around the hull framework at the bow, the sides can be pre bent to ease the attachment to the hull. I soak the sides in hot water for a few minutes then bend

the wood to fit the framework. I use an Ace bandage to hold the wood against the sheer and chine until the wood dries. See photo 6. After the wood dries, attach the wood with thin ca wicked between the frames and the sides. We use reversed clothes pins to clamp the side to the chine. See photo 8. We held the side against the sheer with our hands while the glue set. Some thin ca may wick through the wood and try to bond your hands to the hull side. Keeping your hands moisturized (greased) with "extra strength" hand lotion really minimizes this problem.

11.4 Repeat the process on the second side

Before you cement on the second side, use your sanding block to trim off any overhang at the bow. See photo 7. The second side is attached just like the first.

12. Prepare for the Bottoms

Use your sanding block to remove the excess side wood that extends beyond the chines and sheers and transom. The bottom forms a lap seam over the lower edge of the sides and a butt joint against the other bottom half at the keel. See Fig. 6.

12.1 Bevel keel

As you sand the excess side off below the chines you should also bevel the keel so that the bottom panels will fit correctly. The bottom edge of the sides are also beveled slightly. Your sanding block should just kiss the chine. See photo 9

12.2 Fit bottom panel

The die cut shape of the bottoms should match your hull framework very closely, but some beveling and fitting will be needed near the bow. I mark my bottoms at frame 2 or 3 so that I can check the fit at the same place every time.

12.3 Wet form the bottom

We soaked the bottoms in hot water and strapped the softened wood to the hull with the Ace bandage just as we did with the sides. You can wrap both bottoms on the hull at the same time. See photo 10.

13. Attach bottom halves

13.1 First bottom half

Cement the bottoms to the hull one side at a time. We glue ours on in sections starting where frame 2 or 3 meets the keel. A bead of thick ca is applied to the keel extending 1" fore and aft of the frame where you are starting. Also apply a bead on top of your start frame out to the chine. Now position the first bottom half on your hull and hold in place until the glue sets (about 1.5 minutes). Check that your bottom is lined up on the center of the keel for the entire length and that you are positioned where you checked your fits lengthwise.

Continue cementing the bottom to the keel and frame bottoms in short sections, working aft to the transom. My results working in short sections like this are much better than if I try to attach to the keel all the way to the transom in one step. After you reach the transom, repeat the process working from your start frame forward to the bow. Next wick some thin ca into the seam between the sides and the bottom. Again, working in short sections, yields better results. Additional thick ca can be applied to the chine/bottom joint from inside the hull. See photo 11.

13.2 *Fit and cement second bottom half*

Test fit the second bottom half to your hull. Some fitting will be needed. Generally the second bottom half should line up lengthwise with the first for the best fit. When you are satisfied with the fit, cement the 2nd bottom half using the same techniques used in the 1st. See photo 12.

14. Deck

Trim off all excess wood from the sides and bottom. We use a block plane to trim off most of the excess with excellent results. Whittling also works, but a bit more care is needed. Finish with a sharp sanding block. Sand the tops of the frames and sheers to receive the deck halves. See photo 13. Draw an accurate centerline on top of both of the deck battens to aid in placement of the deck halves.

14.1 *Sand deck and install*

Sand the mating edges of one of the deck halves smooth and square to the top and bottom. Sand the edges of the football opening smooth on both halves. Carefully cement the 1st deck half to your hull. The center edges should align on the centerlines you drew on the battens and the footwell opening should be centered between Frame 2 and Frame 4. See photo 14.

Cement the deck half in place in sections. Squeeze a bead of thick ca on top of the front deck batten from Frame 2 forward to the bow. Also put a bead on top of Frame 2 and Frame 1. If the natural curve of the wood is opposite the shape of the hull, I wipe some warm water on the top surface of the deck to help the wood conform to your hull. Hold you deck in place 'til the glue sets. Repeat this process over Frame 4 and the rear deck batten. Next gently lift the deck above the sheer and squeeze some thick ca into that joint and hand clamp until set.

14.2 *Install second deck half*

You will have to trim the center edge of the second deck half because of the shape that the hull framework induces in the first deck. A few strokes with the sanding block should do the trick. Cement the 2nd deck half to your hull using the same technique as you used on the 1st. You may want to wick some thin ca into the joint all the way around the sheer.

15. Remove center of Frame 3.

Use a razor saw or sharp hobby knife to cut out the center section of Frame 3. Sand the edges smooth. See photo 15.

16. Center Board

Open the bottom of the centerboard trunk. I use a 3/32" bit to drill several holes through the bottom using the centerboard trunk as a guide. Drill from the inside of the hull. Use a hobby knife to clear away the bottom wood between the holes and finish the hole with a small file or sand paper. See photo 16.

Sand the edges of the 3/32" ply center board smooth. The leading and trailing edges can be rounded off but the top edge should be nice and square. Cut a piece of 1/8" x 1/4" hardwood about 2-1/16" long. Cement this to the top of the centerboard with about 1/16" overhang at the front. Test fit the centerboard in the hull. Trim and sand the centerboard cap until it fits neatly on top of the centerboard trunk. See Figs. 4 & 16.

17. Rudder

Cut the 1/16" dia. X 1" brass tube in half. A pocket or paring knife cuts brass tubing nicely. Press the blade into the tube while slowly rolling the tube on a smooth surface. Be sure the blade is 90° to the tube. File the ends smooth. See photo 17.

Drill two holes in the rudder for the 1/32" wire pintles. I used a #60 drill (.040) because I tend to break smaller bits. A #67 is a better fit. Use the dimensions in Fig. 7. Bend the pintles to shape and sand the portion that fits into the rudder so that the glue can get a better grip. Cement the pintles in the rudder. I use the rudder bearing tubes to space the pintle "pins" the proper distance from the rudder leading edge. See photo 18.

18. Cement rudder bearings to transom

Sand the 1/16" x 1/2" tubes to improve adhesion then cement them to the transom. I like to wait until after the model is painted to cement the rudder tubes in place but you have to rough up the paint before cementing for a reliable bond.

After the glue sets on the rudder bearing tubes, you can lift off the rudder then apply some more cement to the tubes for insurance. See photo 19.

Note...

If you trim the length of one of the pintle pins on your rudder so that it is 3/32" shorter than the other, it will be much easier to re-install the rudder.

19. Tiller

The tiller is made from a piece of 1/8" x 1/4" hardwood, 6" long. Drill a 3/32" hole about 9/16" from one end. Use a razor saw to cut from the end of the stick to the hole to create a fork that will fit over the rudder. See Fig. 8. Carve and sand the tiller to the shape shown. Drill a #60 hole crosswise through the fork tines for the straight pin pivot. Drill a corresponding hole in the top of the rudder. Use the straight pin in the fitting bag for the pivot. Clip off the excess with wire cutters.

20. Floor boards

The floor boards are made from the 3/8" wide 1/16" ply strips supplied in the kit. Cut four pieces 7-3/8" long to start and one piece 5" long. Fit the long boards to your model. They are a little awkward to install, they're best wiggled in diagonally. Sand the boards smooth all over. My hands feel a little fat when I put in the floor boards so I pre-assemble the two boards that fit beside the keel outside of the boat. The boards are spaced 1/16" apart with a small scrap of mahogany veneer cemented to the bottom. See photo 20. Make 2 such assemblies.

Fit the 5" long center board over the top of the keel behind the centerboard trunk and cement in place. If you wish, you can sand the top of the keel so that this board is flat like the side boards. I thought the curved board looked OK. Center this board over the keel. Place the side boards on both sides of the keel and cement in place so that the space between all the boards looks equal. See photo 21.

21. Mast

The mast is made of a sandwich of two 20" long pieces of 1/8" x 1/4" hardwood. This sandwich allows you to make a straight mast from less than straight wood. Cut 2 pieces of 1/8" x 1/4" hardwood 20" long. Clamp them together with 4 or 5 spring clothes pins. Sight lengthwise down this mast blank to verify straightness and adjust as needed. When your wood is straight, apply

some thin ca to the seam half way between two of the clothespins and allow it to wick into the seam. After a few seconds, clamp the wood together here with another clothespin. If the clamping pressure doesn't squeeze some cement out of the seam, un-clamp and squirt on some more cement and re-clamp. Repeat this process between each of the original clothes pins. Ca doesn't set as fast with our hardwood as some other woods and you might want to squirt some accelerator on your seam. After the glue has had a few minutes to cure, pull off one of your original clothes pins and wick in some more thin ca and then re-clamp. Repeat this process for all of the original clamps.

Remove all of the clamps and apply enough thin ca to fully fill the seam between the two pieces of wood. Allow a minute for the glue to soak in then spray on some accelerator to insure a full cure. Now take your sanding block and sand the edge of the seam smooth on both sides. Taper the mast from 1/4" square at the base to 3/16" square at the top. Don't round off the corners yet.

22. Jack wire

The jack wire is spaced away from the mast with seven (7) 1/2" long spacers made from 1/16" x 1/8" spruce. Use the dimensions in Fig. 11 to locate the spacers on the rear of the mast. I use the glue seam as a centerline reference when gluing on these spacers. Cement the spacers to the mast with thick ca.

22.1 Drill mast for eye pins

I have numbered the eye pins on the plans with the letters *I* through *Z*

Drill two crosswise holes near the lower spacer for the lower halyard eye pins, a 1/32" (#67) bit works nice. (Eye pins *K* & *O* on the plans)

Drill a hole for the Jib Stay eye pin (*L*) 14-5/8" above the base. This hole should go through the mast front to rear, centered on the glue seam. Drill a crosswise hole for the side stay eyepin (*N*) about 1/16" above the jib stay eye pin hole just drilled. Drill the second side stay eyepin hole (*P*) about 1/16" above the first. Drill a 1/32" crosswise hole just above the top jack wire spacer for the mainsail halyard eye pin (*R*).

22.2 Carve and sand mast to shape

The mast can now be carved and sanded into a more aesthetically pleasing shape. Taper the cross section of the rear half of the mast until the jack wire spacers are about 1/16" wide. I use a sanding block for this. Round over the front of the mast with your sanding block then radius the rear corners between the spacer blocks. Try to keep the tops of the spacer blocks flat.

I like to brush on a couple coats of my finishing material, sanded between coats before I glue on the jack wire.

22.3 Install eye pins

Refer to Fig. 11 and 15 for position and orientation and place the eyepins in their respective holes in the mast. Clip off the excess wire about 1/16" away from the mast. Bend that 1/16" down against the mast and cement the pins in place. You may delay installing all of the eye pins except the one for the jib stay (*L*) until after you finish the mast. The jib stay eye pin (*L*) has to be installed before the jack wire is installed.

22.4 Jack wire

Sand the jack wire with fine sandpaper to improve adhesion then cut to length. Wipe the wire with alcohol or lacquer thinner to remove any skin oil, then cement the wire to the spacer blocks with thick ca.

22.5 Mast pin

Drill a #60 hole in the base of the mast for the mast pin; 1/2" deep is adequate. Cement a piece of .041 wire in this hole with about 1/8" protruding from the base of the mast.

23. Boom

23.1 Jack wire spacers

Cut a piece of 1/8 x 1/4" hardwood for the boom using the dimensions in Fig. 12. The boom could be 8-5/16" long if you wish; my reference drawings just scaled to 8-9/32". Cut 4 pieces of 1/16" x 1/8" spruce about 3/8" long and cement them to the 1/8" edge of the boom. See Fig. 12

23.2 Drill for eyepins

Drill five 1/32" holes for the various eyepins in the boom. See Fig. 11. Sand the boom to a pleasant shape. Be sure to leave a 1/16" wide flat on top of the spacers for the jack wire. Finish now if desired.

23.3 Gooseneck

The gooseneck is the "hinge" that attaches the boom to the mast. It is bent to shape from the .041 wire left over from the mast jack wire. The legs of the wire should fit tightly against the boom. See Fig. 14.

23.4 Jack wire

Before you cut the second piece of .041 wire for the boom jack wire, you need to use it as a needle to thread some dacron casting line down through the hem in the leading edge of the jib. Cement about 1/4" of the dacron to one end of the wire. Thread this "needle and thread" down through the hem of the jib. Pull the string through the hem until you have about 3" hanging outside the bottom of the jib.

Cut the .041 jack wire to fit your boom. Sand it before you cement it to the tops of your spacers. The two eyepins on the bottom of the boom (X & Y) need to be installed before the jack wire. The jack wire is cemented to the boom just as you did the mast jack wire.

24. Splash boards

24.1 Layout position

Use the dimensions in Fig. 10 to layout placement lines for the splashboards. While you are measuring, you might as well mark the positions for the rest of the deck fittings.

24.2 Scotch tape over position lines

The splash boards are kind of difficult to hold in position while cementing. I got around this problem by gluing the boards together first then cementing this assembly to the deck. After

drawing locator lines on the deck, I put some scotch tape on the deck, centered over the lines. Next, the first splash board was fitted to the deck. The board is tilted forward 20-30°. Try to find an angle that makes the center edge perpendicular to the deck centerline. Bevel the center edge for a mitered joint with the second splash board. When you are satisfied with the fit and bevel, cement the 1st board to the scotch tape on the deck with a couple of drops of thick ca. The less glue the better.

Now fit the second splash board to the boat and 1st board. When satisfied with the fit, cement the board to the tape with 2 drops of thick ca. Glue the 2nd board securely to the 1st with thick ca. Allow this glue to cure for 1/2 hour. CA takes about an hour to develop its full strength and the accelerator only speeds up the initial set.

24.3 Pop boards off of tape

Use a thin blade to carefully pry the boards off of the scotch tape. Pull the tape off of the deck. If you are like me, there are probably some gaps between the bottom of the boards and the deck. Tape some medium sandpaper to the deck and carefully scrub the bottom of the splashboards against it until you're satisfied with the fit.

24.4 Sand splash boards

Sand your splashboards smooth and then cement them to the deck. You might want to paint your splashboards a contrasting color to make your deck more interesting. If so, you can cement the boards on later.

25. Rigging

We supply some nice dacron casting line to rig your Snipe. There is a little extra supplied but not enough to cover gross mis-measurement. Most of the line lengths are adjusted with bowsers to tighten up the rig. Bowsers act like the wire do-hickeys that tighten up the guy lines on camping tents. To make it easier to thread the dacron through the small holes in the bowsers, we recommend that you put a small amount of thin ca on the end, allowing it to wick about 1/4" up the line. A little spritz of accelerator will make the end conveniently rigid.

25.1 Bowsers

The bowsers are made from the .040 white plastic strip provided. We made ours 1/2" long with three equally spaced #46 holes. See Fig. 13. The size and hole spacing isn't critical but they look nicer if the holes are equally spaced. You'll need 5 bowsers for your model.

I generally make up the bowser lines off of the model then attach them to the model and/or sails. The screw eyes or eye pins can be opened carefully to capture the loop then re-closed.

25.2 Install deck fittings

Screw the five deck screw eyes in their positions on the deck. A small pilot hole at each location will ease the installation. Cement the jib stay eye pins (Z) in their locations after drilling 1/32" holes.

25.3 Thread jib stay

The jib stay runs from the screw eye on the front deck (I) up through the jib hem to the eyepin (L) on the front of the mast, 14-5/8" above the deck and then down to the bowser adjuster that anchors in the eyepin on the left side of the mast just below the gooseneck (K). See Fig. 9 and 10. You will need about 40" of string.

Tie a small loop in the jib stay that can be hooked in the screw eye in the front deck. (open the screw eye slightly).

25.4 Side stays

Each of the side stays need 22-25" of string. Make up the bowser first, then tie the top end to the eyepins (*N* & *P*) on the side of the mast about 14-3/4" above the deck. Open the side stay screw eyes (*M* & *O*) on the deck to capture the loop of the bowser.

Rig the jib and side stays on your boat. They should form a stable "tripod" to hold up the mast.

26. Rigging sails

26.1 Dress hooks

The main sail attaches to the jack wires on the mast and boom with dress hooks that you need to sew to the luff and foot hems of the sail. You can see the approximate hook placement in Fig. 9. Exact positioning isn't critical. Sew the hooks in place with several loops of white thread. See Fig. 14.

26.2 Hook in place

Carefully hook your sail to the jack wires. Don't force the hooks or you could break the jack wire loose from the spacers. If necessary open the dress hooks slightly.

26.3 Main sail halyard

Rig a bowser in a 30" piece of dacron line for the main sail halyard. Capture the loop on the eye pin on the right side of the mast near the gooseneck (*Q*). Run the free end through the eye pin near the top of the mast (*R*) then sew it to the top corner (head) of the main sail.

26.4 Main sail outhaul

Rig a bowser in a 12" long piece of dacron line. Capture the loop in the eyepin in the side of the boom (*S*). Run the free end through the top eye pin at the end of the boom and then sew it to the rear corner (clew) of the main sail.

26.5 Traveler

Tie a 12" piece of dacron to one of the traveler screw eyes (*U*) on the rear deck. Thread the free end through the little jump ring from the fitting bag then tie it to the other traveler screw eye (*V*) so that it looks like Fig. 11.

26.6 Main Sheet

Tie an 18-20" piece of dacron to the lower eyepin on the end of the boom (*W*). Thread the free end of this line down through the jump ring on the traveler, up to the rearmost eye (*X*) on the bottom of the boom then forward through the next eye pin (*Y*). Coil the remainder on the floor.

26.7 Jib Sheet

Cut a piece of dacron line 18-20" long for the jib sheet. Fold this line in the middle and sew it to the lower rear corner of the jib (clew). Thread each free end through one of the jib sheet eye pins (*Z*) on the deck. Photo 28 shows the running rigging, however, photo model had a different

attachment for the jib sheet that simulated a series of jam cleats. We changed to the eye pins (Z) shown on the plans.

27. Stand construction

Cut two pieces of 3/8" x 1/2" hardwood, 4-3/4" long as shown in Fig. 17. Tape the two pieces together and drill for the 1/4" dowel cross braces. Radius one end as shown and sand smooth all over. Push the 1/4" dowels on the holes until they are flush on the back side of the sticks then lay the sticks and dowels on a flat surface. The sticks should lay flat. Cement the dowels in place.

Cut two pieces of 1/2" x 3/8", 4-1/8" long and sand smooth all over. Cement these hull supports to Stand ends, A & B, as shown in Fig. 17. Clamp the leg assembly from the preceding paragraph to the die cut stand ends with reversed clothespins. Adjust the angle of the leg assembly until the stand is stable then wick some thin ca into the joints to secure them. See photo 27.

28. Exterior Finishing

As I mentioned at the beginning, I like finishing with lacquer based materials; mostly because they dry so quickly. As an experiment, I finished our first display model with waterbase finishes from a local crafts store. The results were quite nice. If you live in an apartment or similar situation where strong smells are objectionable to your neighbors, these finishes are a very good choice. I used Liquitex Acrylic Wood Stain, Minwax Polycrylic Clear and Elmers Fill 'N Finish Dark Wood Filler. The filler was a little lighter than the Mahogany veneer but I was able to mix some wood stain with filler and get a very good match.

I used the wood filler to fill gaps in imperfectly fitted joints and to fill the sometimes coarse grain of the planking. The filling technique was to tint some filler with the acrylic stain then spread it on the wood with an artist's palette knife. Kind of a miniature putty knife. The filler was spread on across the grain to leave as much as possible in the grain and was then allowed to dry thoroughly. Don't put on so much filler that the wood looks like it has been plastered with brown plaster. After the filler has dried sand off all the excess leaving filler in the pores only. A coat of stain and about 3 coats of clear will result in a very nice finish. The only real objection that I have to the water borne finishes is that I have a hard time cleaning the stuff out of my brushes. I have better luck cleaning out solvent based products.

My favorite finishing system is lacquer sanding sealer and semigloss clear lacquer or polyurethane. I usually stain my wood with water or alcohol based stains from Constantines or Behlens and fill the grain with multiple coats of sanding sealer. I like a little bit of the wood texture to be visible in the finished model. Polyurethane is a more durable top coat than the lacquer but it dries much more slowly.

You can also paint your model but a lot of the charm comes from the natural beauty of the wood.

Thanks...

We appreciate your confidence in our product as expressed by your purchase of this kit. We hope that you have enjoyed building the Snipe and hope that we can be of service to you in the future.

Good luck and good boating.

dumas products inc.

909 E. 17th Street Tucson, Arizona 85719
voice (520) 623-3742 fax (520) 620-1329

Kit no.1122 Die Cut Parts Locator

