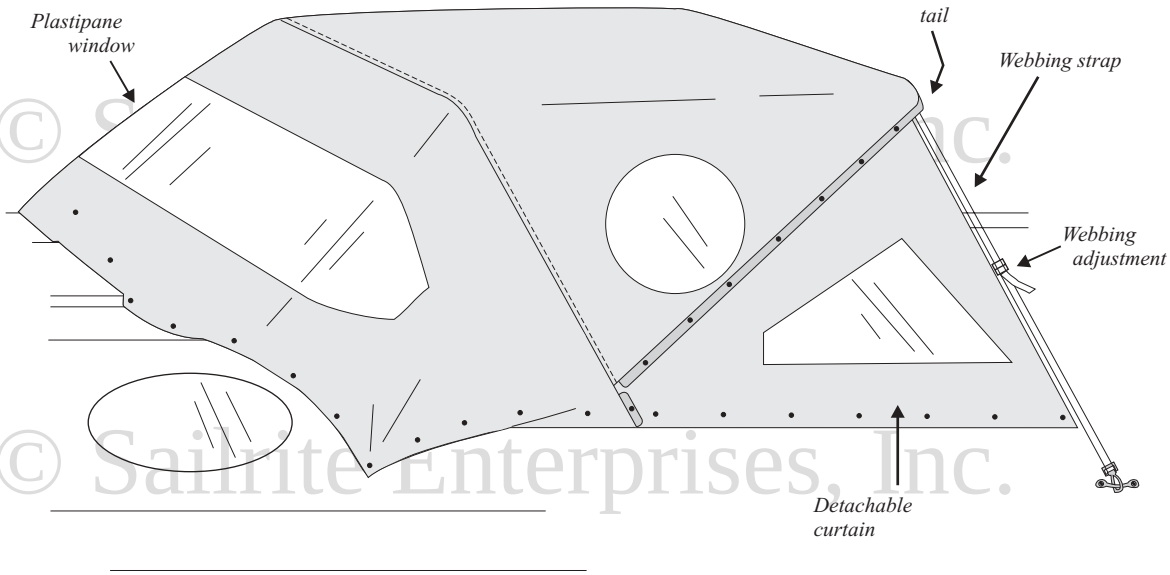
COMPANIONWAY DODGERS



A companionway dodger is intended to provide shelter while underway in sun, rough water or rain. The heart of a dodger is a metal frame that can be folded out of the way when not in use (Figure 1). This frame should be custom fitted to the boat in order to provide maximum protection and still fold down. And the dodger fabric should also be custom fitted to the boat to provide a good seal all along its forward edge. As a result, two dodgers are seldom just alike. Each one is designed for the boat in question.

That is one reason dodgers are so expensive. They do not lend themselves to mass production. Fortunately, that makes them ideal do-it-yourself projects. With a bit of time and effort, a dodger that perfectly fits the boat and any special needs can be made. **(Note: This kit does not always provide enough material for side curtains. If curtains are desired, extra materials may need to be purchased.)**

Assess needs carefully because no one dodger can do everything. The ideal dodger would:

1. Keep the companionway dry in all wind and sea conditions.
2. Allow easy access to the cabin.
3. Protect the cockpit from sea and spray.
4. Provide as much protection from the wind as possible.

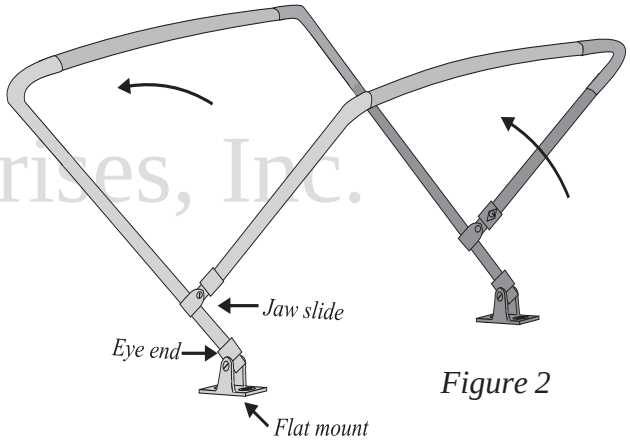
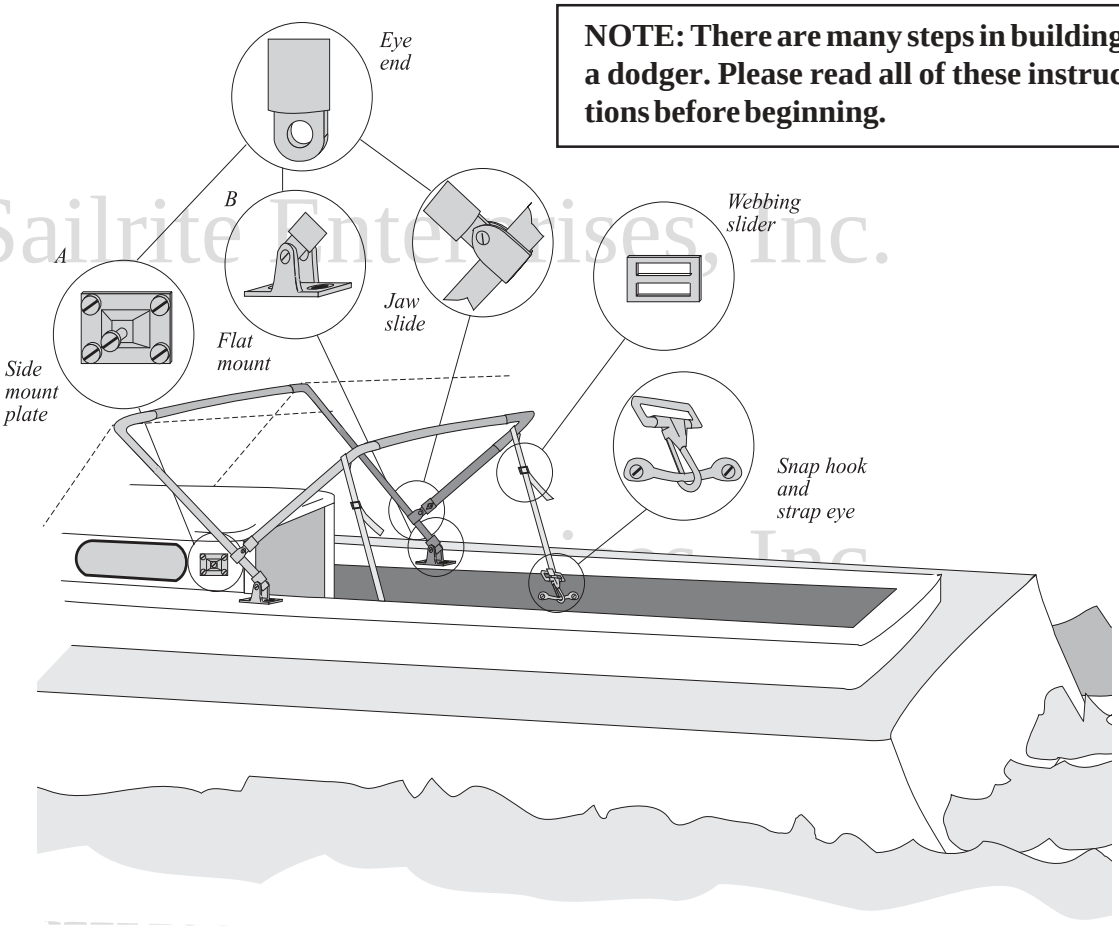


Figure 2

5. Not interfere with the helmsman's visibility.
6. Fold down compactly out of the way when not in use.
7. Be strong enough to survive someone's falling into it.
8. Not detract from the appearance of the boat.
9. Permit easy access to the foredeck round its sides.

But all dodgers are compromises. The important thing is to decide what features are most important and then make the dodger to meet those needs.

NOTE: There are many steps in building a dodger. Please read all of these instructions before beginning.



Mounting fixture "B" is standard.
"A" can be substituted if it is more suitable.

Figure 3

FRAME ERECTION

The key to the success of the Sailrite Dodger is the use of pattern material. The frame is erected and double sided tape is used to adhere each panel of the pattern material, which is marked and roughly cut. These patterns are then removed from the frame and used to cut the actual dodger material.

Dodger frames are available in anodized aluminum and stainless steel. The aluminum frames are about half the price of the stainless ones, but they are also about half as strong. The larger the frame, the more likely stainless will be justified. But we have many customers with very large aluminum frames who are quite satisfied.

Each dodger bow is comprised of three parts: a straight (or slightly crowned) piece of tubing and two bent pieces. Shorter pieces of reduced diameter tubing are used as splines to join these pieces together.

These bows can be made narrower by cutting from the length of the straight (or slightly crowned) center tubing (equal amounts must be cut from the ends of crowned tubing). Similarly, a bow can be made shorter by cutting equal amounts from the leg portions of the two bent tubing lengths.

The hardware used with the dodger bows is very simple. Eye ends are used at the ends of bows to finish them and provide a means of attachment. Jaw slides are used to secure bows to one another. Mounting plates are used to secure the frame to the deck. There are two types of mounting plates depending upon whether the frame will be attached to a nearly

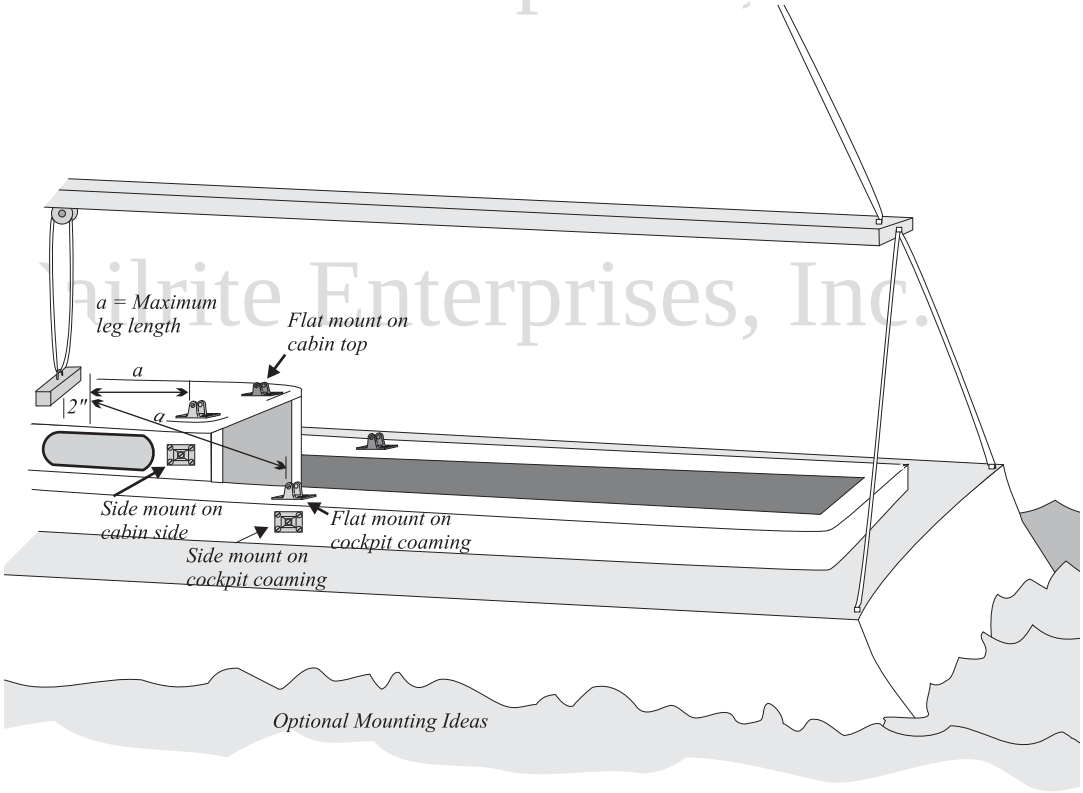


Figure 4

vertical surface like the side of a cabin or a nearly flat surface like the top of a cockpit coaming or the top of the cabin. Snap hooks and webbing sliders are used to hold the frame upright while still permitting its collapse forward when it is not needed (Figure 2).

The best way to determine proper frame dimensions is to actually erect the frame temporarily on the boat: (filament tape can be used to hold everything in place.)

1) Determining the location of the mounting plates.

There are four possible locations for these plates: the cabin top, the cabin sides, the cockpit coaming sides and the cockpit coaming top if it is wider than the cabin and runs up alongside the cabin (Figure 3). The reason the coaming must be wider than the cabin is that the legs of the frame will not otherwise fold forward to lower the dodger down onto the cabin top.

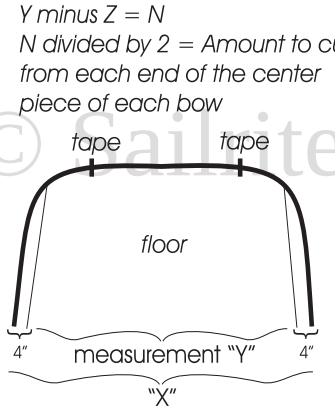
After determining the best location use strips of tape to temporarily secure the mounting plates. To be sure the mounting plates are square, measure from the outside corners of the port and starboard transom to their locations. Then take a second set of measurements diagonally from the port transom corner to the starboard mount and from the starboard transom corner to the port mount. Each set of measurements should be nearly equal.

2) Cutting the bows to the proper width.

To make the dodger frame more solid, the frame should be compressed. Follow the steps below (see Figure 5 also):

a. Take the two bent pieces of the longest bow (usually used as the forward bow) and insert half way into each bent end a short piece of reduced diameter tubing.

b. Now take the straight (or slightly crowned) center piece of the bow and place it between the two bent pieces. Connect the parts by pushing the reduced diameter inserts into the ends of the straight tubing. Tape the 3 pieces together with tape. Note: if the center piece is slightly crowned be sure the crown is bowed upward.



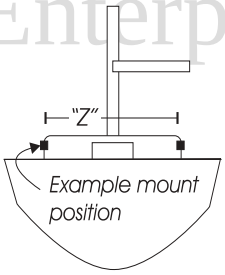


Figure 5

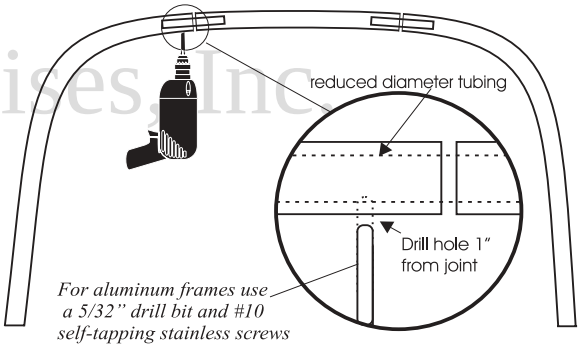


Figure 6

c. Lay this partially assembled bow on the floor and measure the distance between the two legs. Call that measurement "X".
d. For compression purposes the legs need to be forced in 3 inches on each side if the frame is aluminum or 1 inch if stainless. So subtract 6 inches if aluminum and 2 inches if stainless from the distance between the two legs and call that measurement "Y".
e. On the boat, measure between the two mounting plates. Call that measurement "Z".
f. Subtract "Z" from "Y" and call that measurement "N".
g. Divide "N" by two. This is the amount which should be cut from both ends of the center piece **of each bow** in the dodger frame in order to provide compression. Do that now using either a hacksaw or, for an easier, squarer cut, use a hand held tubing cutter. Remember, measure twice and cut once!

After cutting the frame width, tape the bow assembly back together. (Two bow-assemblies will be constructed for two bow dodger frames and three for three bow dodger frames.) Be sure the spline tubing is inserted equally in the leg and the center piece and that the center piece (if crowned) is up.

With each bow lying on a flat surface, use a 5/32nds inch drill bit to make two pilot holes (one on each side of the joint where the two frame pieces meet). Drill through both the frame piece and the reduced tubing. Be sure to drill up from the bottom of the frame so that, when the screw is inserted, it will not come in contact with the fabric. If a center punch is used first to make a "dimple" for starting the hole, drilling will be easier.

Now lock the coupled bow segments together using the #10 stainless steel, 1/2" self taping pan headed screws included with the aluminum frame dodger kit (Figure 6). (With stainless bows we find that the self taping screws often break or the threads on the screws are simply worn away by the tough stainless. To resolve this problem we recommend that a #21 drill bit be used to open the hole and that the outer tubing be tapped. Use a 10-32 tap and the included 10-32 machine screws.)

3) Determining the height of the bow.

If the frame is to fold properly, the longest bow is normally at least as long as the distance from the mounting plates forward to about two inches in front of the hatch in its most forward position (This may not always be possible. The frame can be folded down on the hatch if necessary. Velcro can be used to seal it when the hatch is forward). If there is a mid-boom traveler, the longest bow should fold down to about two inches aft of it

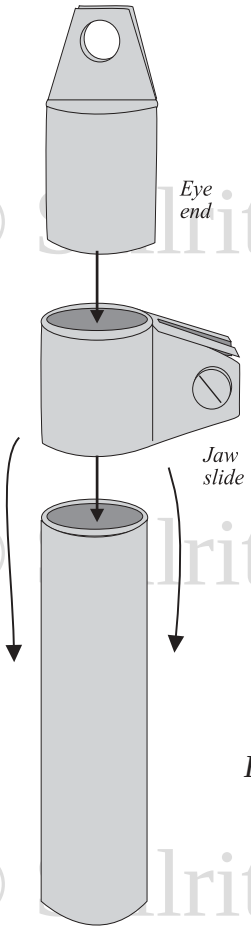


Figure 7

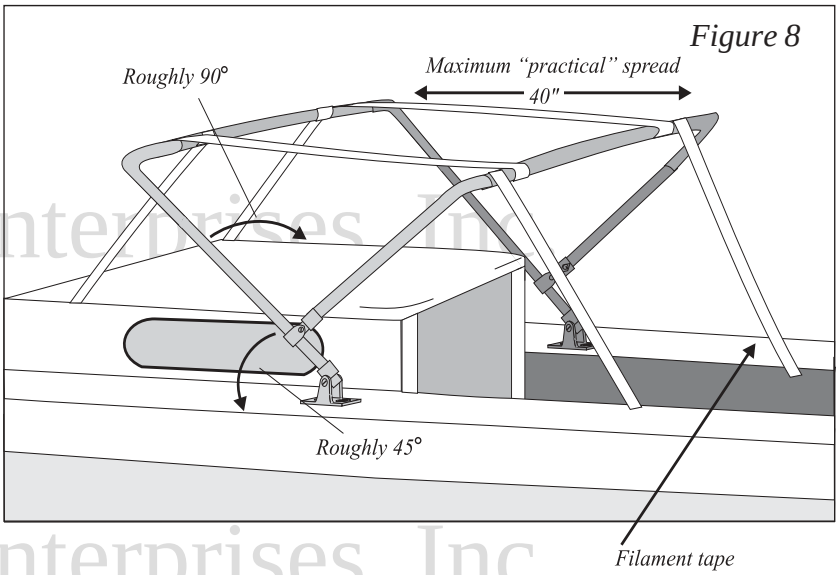


Figure 8

(Figure 4). Measure this distance at the boat and cut the legs if necessary.

4) Determining the angle of the bows.

Now, slide a jaw slider (or two if constructing a three bow dodger) up each of the long legs. Place eye ends on both leg ends (Figure 7). Note that all of these fittings lock in place with set screws. Tighten the eye end screws and insert the legs into the mounting plates. Tape this long bow in place at the mounting plate. (The longest legged bow is usually the one furthest forward. Use filament tape to support the bow temporarily to establish just what position will give protection from the elements while not preventing a good view of the sails or the water ahead (Figure 8).

The second bow will be secured to the longest bow at the jaw sliders. This bow is normally only two to eight inches shorter than the first bow and of a similar width. But there is no rule to determine its height. Just keep in mind that a dodger frame "looks" good when the primary and secondary bows form approximately a right angle to each other and when the forward and aft bows are angled at about forty five degrees to the deck of the boat (Figure 8).

The longest practical spread of cloth between two bows is about forty inches (Figure 8). If the spread is greater than this, it is a good idea to use a third bow (Figure 9). It is normally secured to the longest bow with two more jaw slides. Keep its angle to the primary bow similar to that of the secondary bow (about ninety degrees). Make sure that it will fold up onto the primary bow so that a minimum of space is required when the frame is folded forward. Tighten the set screw on the jaw slides when the short bow is positioned properly.

Test fit the bow using filament reinforced strapping tape to hold it in place until you have just the placement that yields proper protection while still permitting crew to move forward past the frame along the deck. Note that the boom with the mainsail sheeted down hard on it must be able to swing over the top of the bows.

Dodgers are usually designed to fold forward. Be sure that the bows nest together when folded

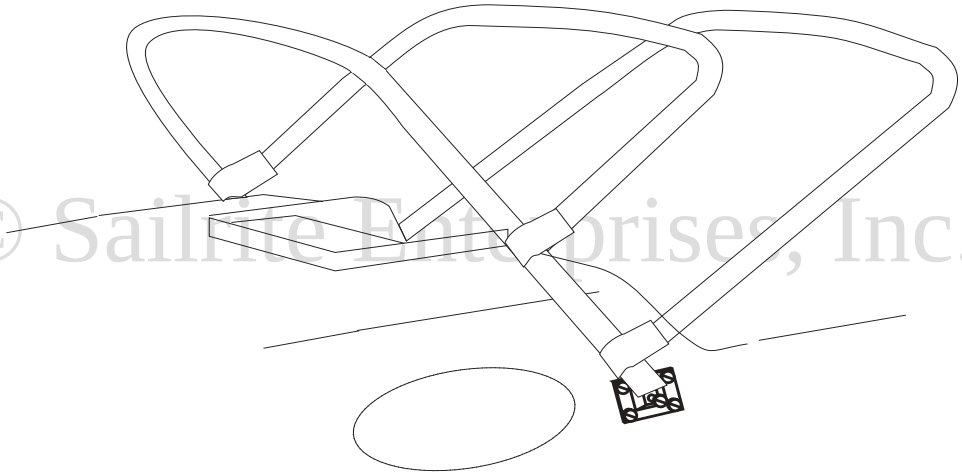


Figure 9

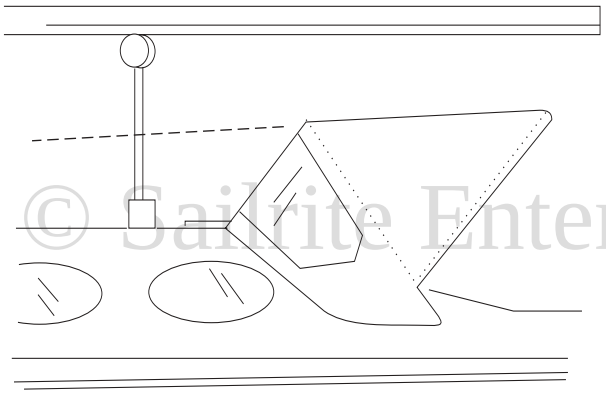
one on top of the other just forward of the companionway entrance so that access to the cabin is possible. Hopefully there will be no obstructions like cabin hand rails that prevent the frame from folding all the way forward. But that is seldom the case and it is not a serious problem.

When the frame is in place it should pitch down about three inches lower at the forward bow than at the aft one. This will encourage water to run forward off it rather than aft and it will make the dodger look more rakish (Figure 10).

Make sure that the frame is solidly erected and well supported with your tape. It must not shift part way along in the pattern making.

This is a good time to choose locations for the two strap eyes. Install them with the stainless screws included, using an appropriate drill bit. Webbing straps will be run from the strap eyes to an open opening in the dodger fabric on the aft bow. The straps are used to adjust tension on the dodger.

Figure 10



COVER FABRICATION

Before beginning work on the fabric, read over these instructions carefully. Dodgers are not really difficult to build, but some of the seaming is rather complicated at first glance.

Start by placing some pieces of tape on the bows to serve as reference points for “match up” marks. These "match up" marks will be used to match up separate cloth panels later on. Place a piece of tape at the center of each bow and three more on both sides of this center one—one between the center one and the bend, one at the center of the bend and the third just below the bend. These bands will also be used to mark the height of side curtains, so they must be accurately placed at the same point on both sides of the bow.

Top Panel Patterning

We use a clear polyurethane sheet 4 mm thick to create panel patterns. Put the filament tape all along the top surface of each bow (the surface outside and opposite the legs). This tape can be easily removed when patterns are complete. Then run a strip of double sided tape on the top of the filament tape. This will be used to secure the pattern material in place. Peal the paper backing from the double sided tape as needed. Begin by shaping the panel which stretches across the top of the frame from the aft bow (or middle bow in the case of a three bow frame) to the forward bow. If the pattern material is too narrow to

cover the span, tape or sew two widths together. The curves along the leading and trailing edges of this "top panel" are critical so be sure that they are right—keep the plastic wrinkle free (Figure 11). If it does not look good, pull it away from the tape and reapply it. The finished shape of the top panel will be similar to that shown in Figure 13 for a two bow and Figure 14 for a three bow frame.

Two sets of hands can speed this process. Now mark the fabric with a marking pen held in line with the center of the leg of the bow over which it is pulled (Figure 12). The top panel will be completely outlined in this fashion. All that is left is to place match up marks on the fabric to use as line up reference points when attaching the other panels of the dodger to this first one. These marks should be made at each of the seven places where tape was put on the frames. See Figure 12. Remove the pattern material and cut it out along the marking pen lines.

If covering a three bow frame, pattern the second "top panel" now. Follow the same procedures just presented. The final result is illustrated in Figure 14.

Figure 13

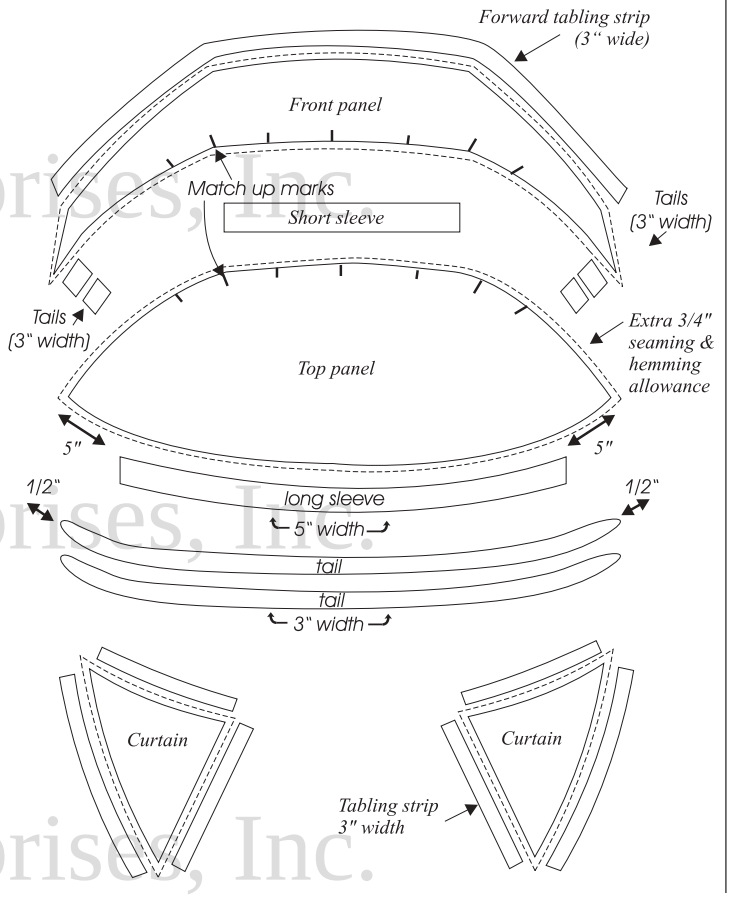


Figure 11

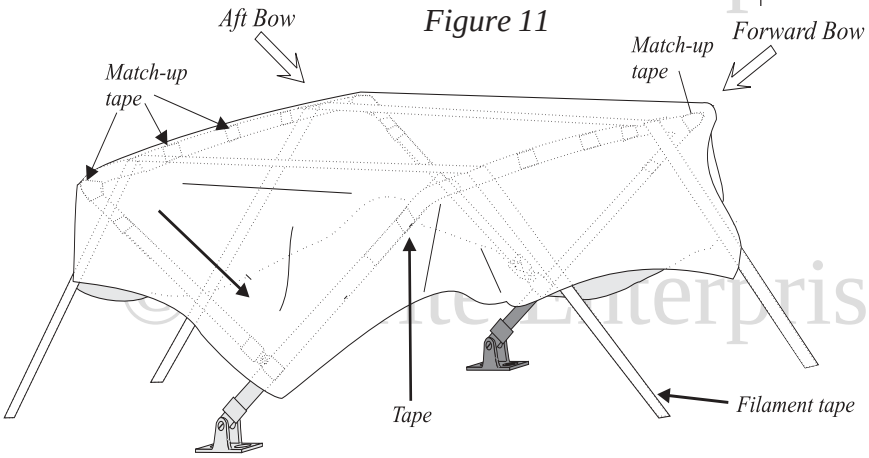
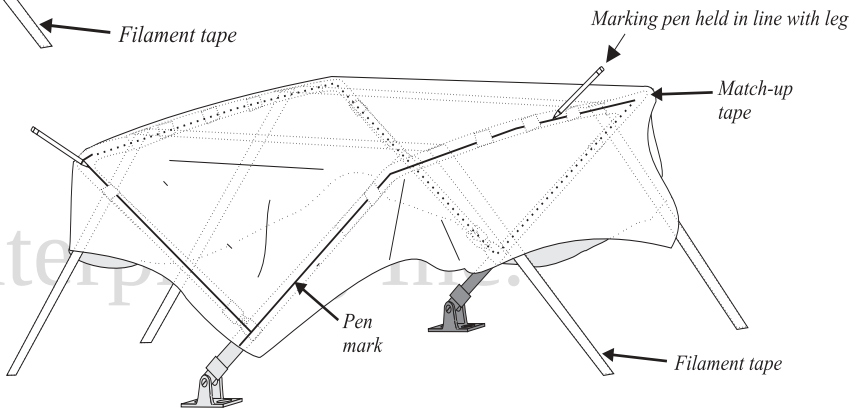


Figure 12



Mark fabric with a marking pen

Forward Panel Patterning

Once this top panel pattern (or two patterns in the case of a three bow frame) is cut, turn to the forward panel of the dodger. This is a difficult panel to fit because there must be provision for the sliding hatch and other protrusions on the deck. Before the fit can be made, one must decide where and how the leading edge of the dodger will be fastened.

It is normal to use cloth to surface snap fasteners for this edge. Keep the strain on these fasteners in shear as much as possible. A 45 degree pull on snaps is usually OK. But, if the boat does not have moulded spray rails, mounting wedges of teak or mahogany along the deck will help. Such wedges are illustrated (Figure 15).

Two or more pieces of pattern material can be taped or sewn together if needed in order to make up a large enough section for the front dodger panel. Begin at the center of the forward bow and stick the pattern material in place there on the forward bow. Then pull the pattern material down and forward to the area where the frames will fold over the deck of the boat. We will actually screw the pattern to the boat now. Install a snap fastener in the boat at the center of the dodger's leading edge. Simply screw this fastener right through the pattern material to hold it in place and to mark the proper location for a snap in the real thing (Figure 16). Continue adhering the material towards each side along the forward bow. Also continue to install snap fasteners in the boat and through the pattern material all the way to the sides of the dodger. It will probably be necessary to cut "relief notches" in the fabric to allow for the hatch cover, handrails and any other protrusions on the cabin top

Figure 14

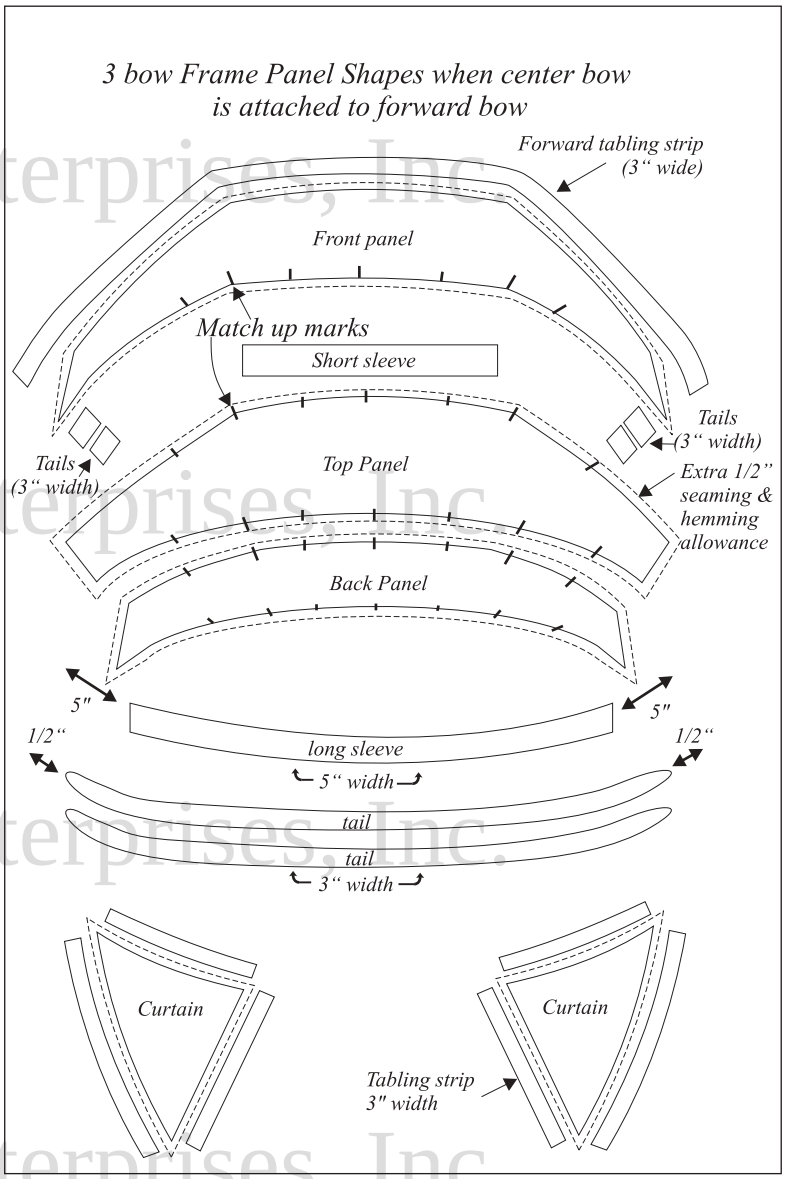
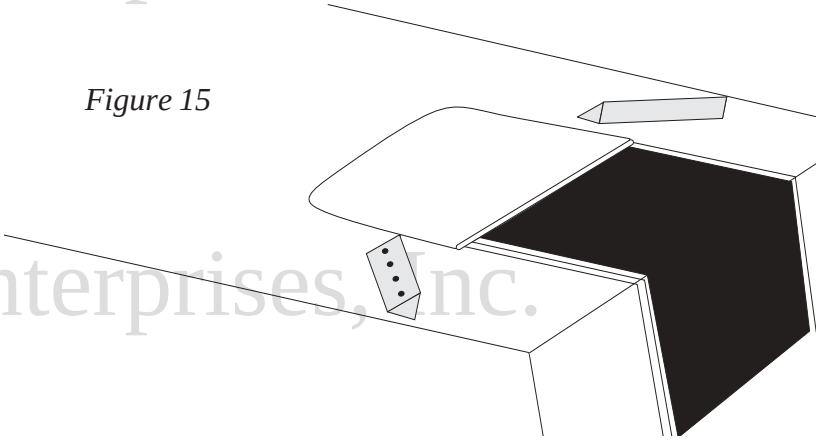


Figure 15



(Figure 17). The last snap should be located on a line extended from the longest bow leg (Figure 18). Any snap mounted aft of this location would have to be undone in order to fold the frame forward.

Use a marking pen to outline the pattern material on the front bow. Once again, keep the pencil on "top" of the tubing using the legs as the "bottom" reference. Don't forget to place hash marks on the fabric over the tape bands. (Figure 19).

Use the locations of the snaps as a reference for the curve of the lower edge of the front panel. Mark and cut the pattern about one inch beyond the line of snap holes. Note: Use a pliable piece of wood trim or a batten to mark a clean smooth edge. At this stage omit any relief cuts for handrails, etc.

Side Curtain Patterning

Now fashion the side curtain patterns. The side curtains will be snap fastened to a flap of fabric called a tail and attached to the aft edge of the dodger and secured along the cockpit coaming. These curtains can be removed to allow air circulation on hot days. Their shape and the mode of their attachment to the hull will differ from boat to boat, but the matter should present little difficulty.

Measure the curtain opening in the frame and cut a piece of the pattern material slightly larger than the opening. Tape it in place on the frame and on the boat itself. Once again, put down strapping tape on the boat and then the double sided tape or there will be a great difficulty removing the double sided tape. Use the tape bands on the frame tubing for a starting point for the upper corner. Mark the outline of the curtain with a marking pen and cut it out (Figure 20). Do the

Figure 16

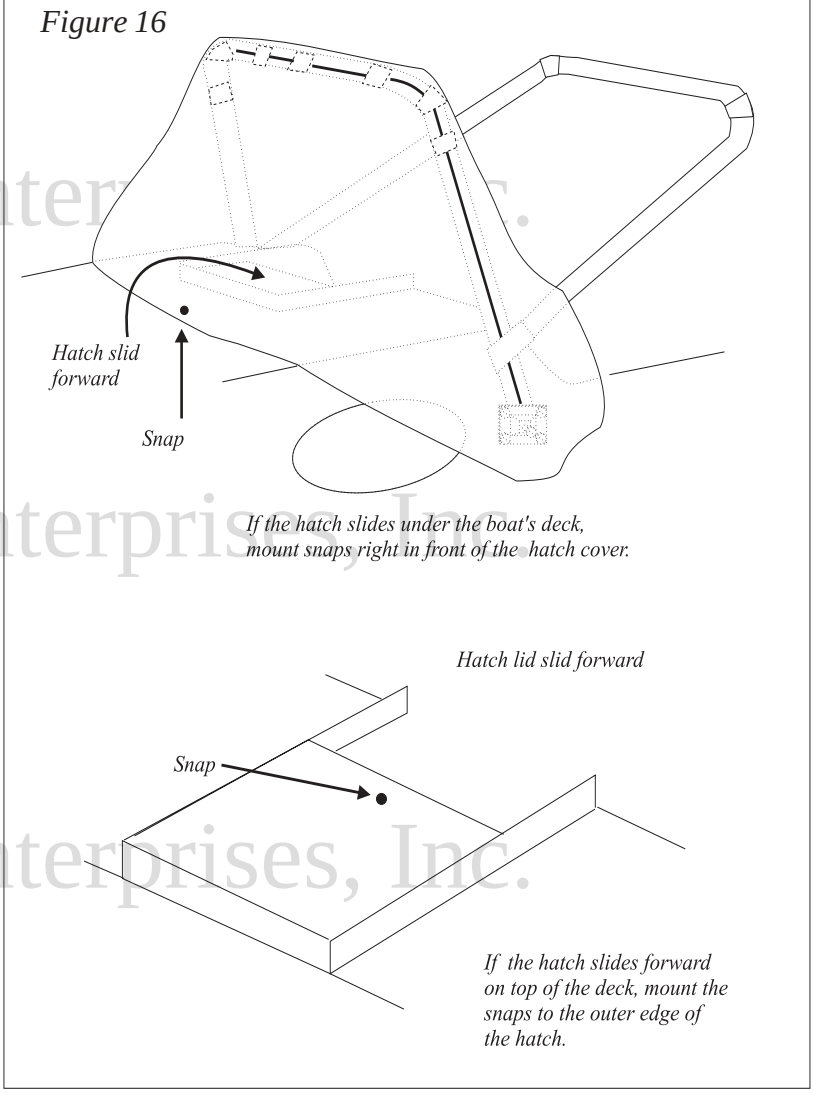
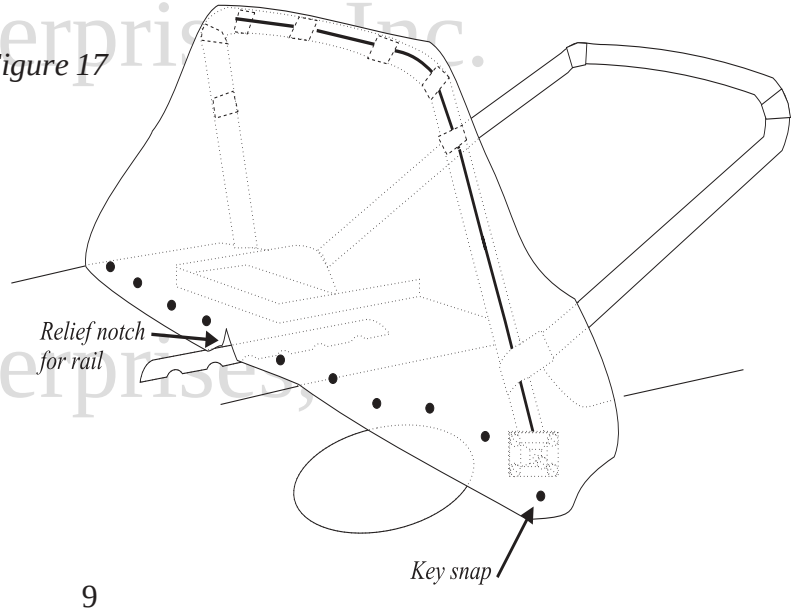


Figure 17



same for the other curtain opening. Mark them "port" and "starboard".

Remove the patterns from the frame. Be sure to mark the outer surface of each one so they cannot be flip flopped inadvertently.

Lay all the patterns over the cover fabric so that their length is either perpendicular or horizontal to the fabric's "warp" (the threads running along its length). Some fabrics have a "right" side—if so, do not flip the patterns to get a better fit. The acrylic fabrics most often used for dodgers, however, can be used with either side out. Even so, it is a good idea to place a piece of tape on the "outside" of each cover panel as it is cut for later reference when assembling the panels.

There will be 19 or 20 distinct panels of cloth comprising the dodger as illustrated in Figures 13 and 14. Two are simply long strips used to create sleeves within which the frame is slipped. The shorter of these is a rectangle thirty-six inches long and five inches wide. These dimensions are not critical since the short sleeve is used only to hold the forward bow in place. The second, "long sleeve" should be a duplicate of the aft edge of the top panel minus ten inches (Figure 13). It should be 5 inches wide.

Six of the panels are used to create "tails" for the forward and aft panels of the dodger. The forward tails provide attachment points for side curtains. The aft tail provides two functions. First, it tends to keep rain or spray from wicking back along the underside of the top to drip on those underneath it. Second, it provides a handy flap to which additional covers or curtains can be attached.

Seven of the panels are tabling strips* pieces used to finish off the edges of the larger panels. **When cutting out the larger panels leave room for these strips which must match the shapes of the larger panels (Figure 21).** To cut these tablings, move the pattern edge away from the matching edge at least one inch more than the width of the tabling. Reproduce the pattern curve at this point. Then measure from this new line back 3 inches at several points and put down a parallel line. (Note that this "inside" tabling edge will

Figure 18

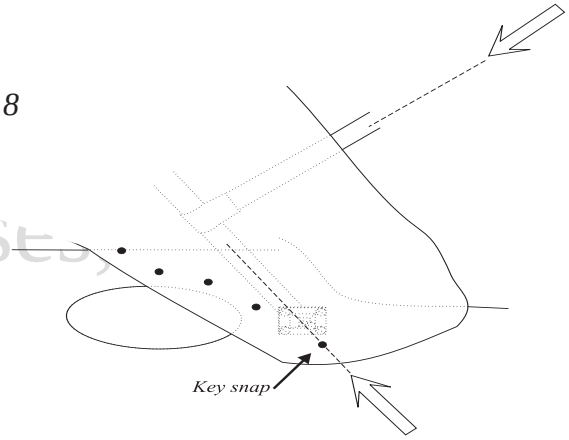


Figure 19

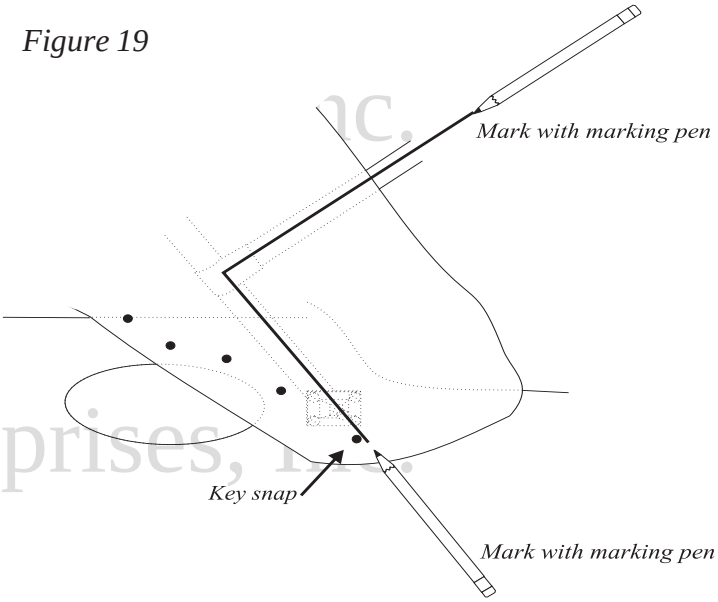
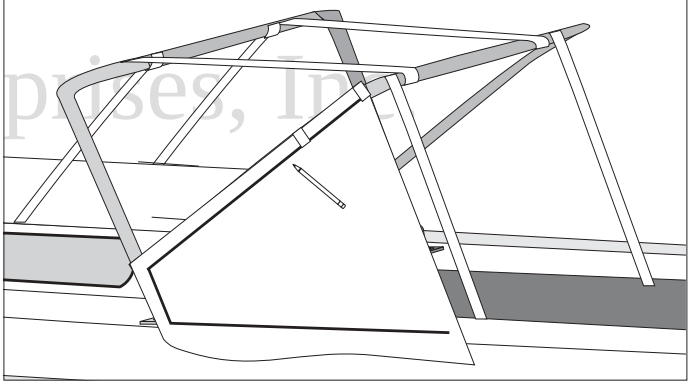


Figure 20



Tape curtain blank in place and mark with marking pen

*A *facing* is a piece of fabric that reinforces an edge by simply doubling it. A *tabling* is very similar except that it is cut so that it will match the curve of the edge to which it is applied. This provides for similar bias stretch in both layers which eliminates stretch wrinkles

not be an exact match to the pattern edge.) Use this same procedure for the long aft tail and sleeve.

Cut out the top panel or panels, the forward panel, the long sleeve, and the side curtains now using the patterns made above as guides. (There was no need to make a pattern for the short sleeve since it is a simple rectangle. Also cut it out.) **Allow 5/8-inch of extra cloth all around these panels as a seaming and hemming allowance (dotted lines in Figures 13 & 14).** The sleeve strips do not require this seam allowance since it is included in the five inch width specified.

If two or more pieces of fabric have to be joined together to make a single panel, do so by placing one squarely over the other. Place outside surfaces back to back. Stagger the panels about 5/8-inch. Sew them together with a row of straight stitches just inside the inner edge. Fold the stagger allowance over and sew it down with a second row of straight stitches along the allowance edge. Now unfold the top panel and spread the assembly flat. The 1/2-inch seam allowance will be folded underneath. This should be sewn in place with a third row of straight stitches on one side of the seam. A fourth row can be placed along the other side of the seam to make it a bit more secure. These steps are illustrated in Figure 22. This step-by-step flat feld seam construction is recommended for those with little experience. The use of basting tape or a common desk staple (or both) at each step will further insure a neat and accurate seam.

Patterning the Tails and Tabling Strips

One “tail” (the "Aft Tail") is placed at the aft end of the top. Proceed just as you did when cutting the aft sleeve (i.e. make it duplicate the aft edge of the top panel) except make the tail 3 inches wide. When cutting this tail, it is a good idea to make it 1/2-inch or so shorter on each end than the aft panel edge. This reduces the thickness of the finished top at the corners. The "innermost" corners of the tail should be rounded with a radius of about 6 inches. Now cut a duplicate of the tail. The duplicate will be used as a reinforcement.

The other two short tails (the "Forward Tails") are for the aft edges of the forward panel. They are just simple rectangles. To determine their length measure from the "Key Snap" shown in Figure 17 to the top of the jaw slide. Cut two identical 3 inch wide tail pieces for one side and then two more for the other side. Round both outside corners on one side as

Figure 21

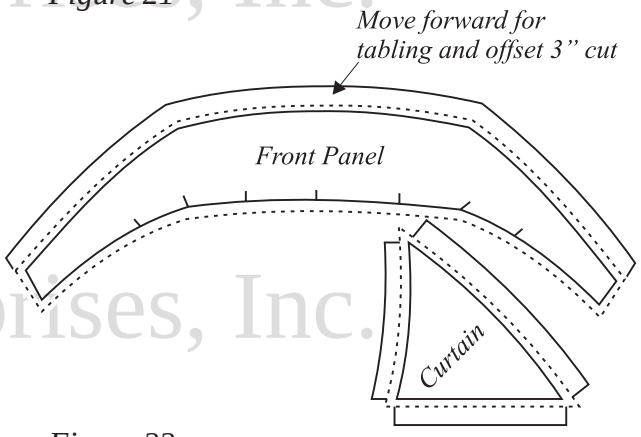
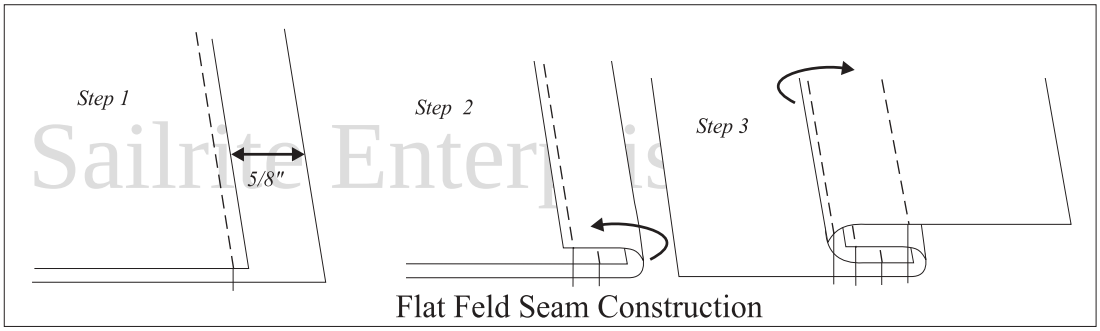
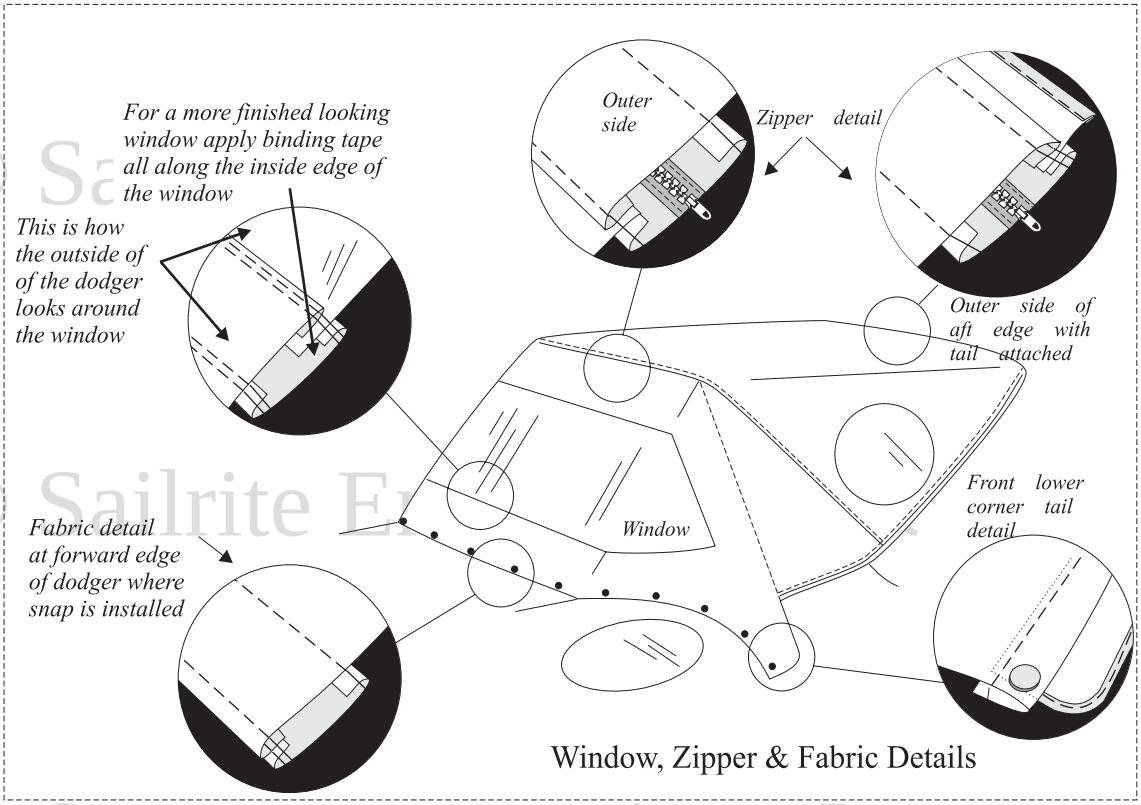


Figure 22



Flat Feld Seam Construction

Figure 23



Window, Zipper & Fabric Details

described above.

There are seven tabling strips that will be used to trim and reinforce the curtain edges and the leading edge of the forward panel. Cut the tabling strips three inches wide and exactly like the edges over which they will be placed (Figures 13 & 14). If room has been left between the large panels when they were cut, the one edge will already be there on the remaining fabric. Simply cut back into the fabric three inches and repeat that shape. They will be attached later to provide a finished edge all along the exposed parts of the dodger. Figures 13 & 14 show all the dodger pieces you should have at this stage.

Installing Windows

This is a good point at which to install windows. Cut the clear vinyl to the size and shape desired plus about 1" extra all around for installation purposes. Then baste and staple it in place on the inside of the appropriate pieces of cover fabric. Run a row of stitches (straight or zigzag) all round the window. Keep the vinyl down while sewing—otherwise it will tend to break free and form a bubble in front of the presser foot because it is so sticky. (If you have a walking foot machine, the plastic can be up when you sew.)

Trace a line about 1 1/2-inch inside the window edge all round. Cut the fabric away on this line. Fold the cut edge of the cloth under itself against the window. Finish the window installation with a second row of stitches. Relief cuts halfway into the first row of stitches may be necessary along curves.

A somewhat more finished window installation using binding tape laid flat on the inside edge of the window is portrayed in Figure 23. This technique will require a bit more work, but it can result in a very nice looking window.

Try to keep your windows clear of the frame, otherwise the metal can heat to the point where it will harden and discolor the vinyl. If you want a large window that overlaps the frame, leave a strip of fabric to insulate the plastic.

Installing Zippers in the Sleeves & Creating Tails

Hem the short ends of the two sleeve strips. The hems should be 5/8-inch wide. Fold the outer side of each one back on itself. Crease the material to provide a guideline and run a row of straight stitches about 1/4-inch inside the folded edges. Keep the folded edge down as it goes through the machine. Then slit the sleeves down their center lengthwise and add zippers along the cut edges (see Figure 24 on the following page). The zippers will be started at the centers of the bows and zipped outward (see Figure 25 on the following page). They should be placed so that they close the sleeve completely at its outer ends—do not be concerned if there is a gap left in the center of the sleeve. If the zippers are too long, simply cut them at their outer ends. The teeth there should be whipped with twine or covered with a leather patch to prevent the slider from coming off (see Figures 43 & 44) or cut a tooth from a scrap of zipper and insert it between the final two teeth. Then use a soldering iron or gun to weld the three teeth together to create a new stop.

To install the zippers, undo them completely. Lay one of the two halves along the inside or cut edge of a sleeve half so that the teeth point away from the cut edge (Figure 25). Sew it in place with a row of straight stitches within a quarter inch of the teeth (Figure 26). Do the same with the other zipper halves. Then fold these "zippered" edges under so that they will mate properly. Sew a second row of straight stitches along the inner edge of this newly formed hem (Figure 27). A fold of the sleeve cloth should partially cover the zipper teeth when done providing a nice finished appearance.

From now on these sleeves with zippers will be referred to as zipper/sleeve assemblies.

To create tails from the pieces cut simply sew the two parts of each tail together by placing a 7/8-inch binding tape along the two short ends

Figure 26

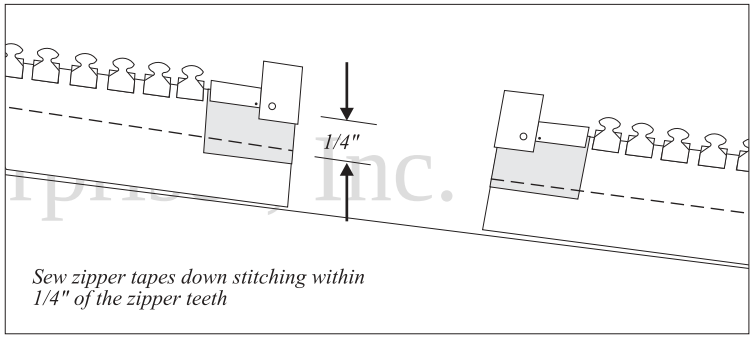


Figure 27

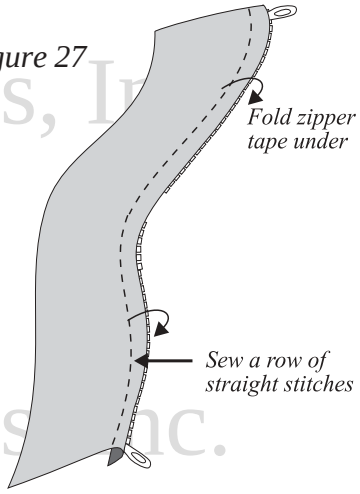


Figure 28

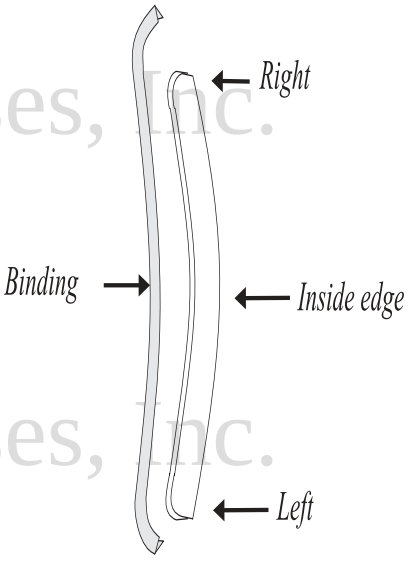


Figure 24

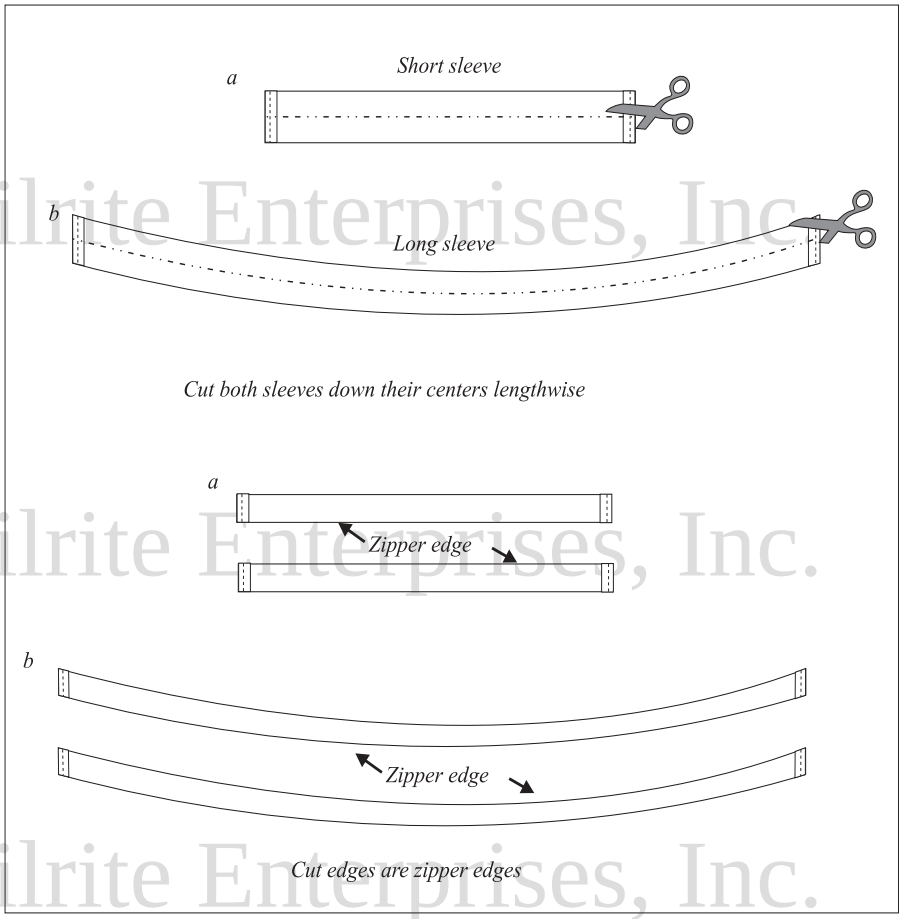
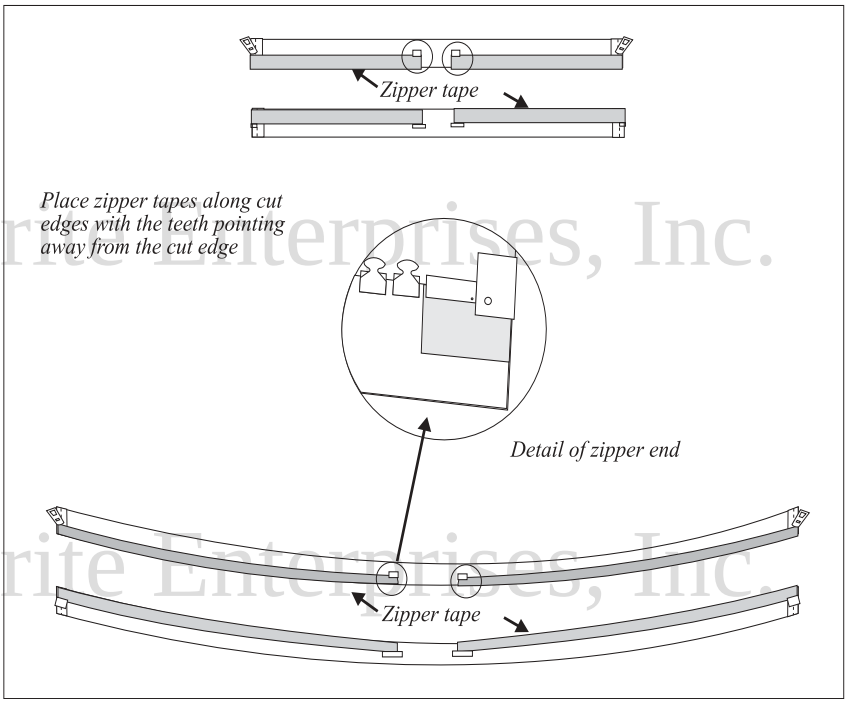


Figure 25



and the long edge with the rounded corners (Figure 28).

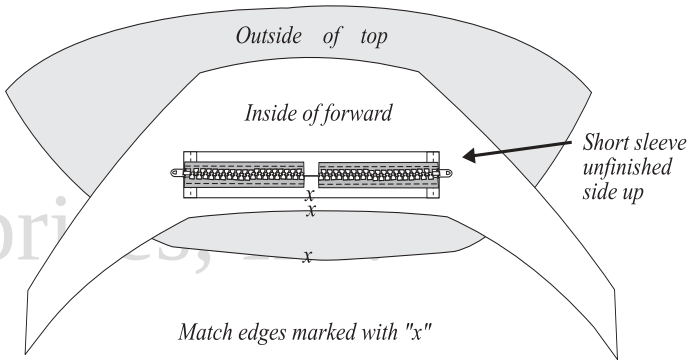
Panel Assembly

Now begin sewing the panels together. Examine the detailed illustrations of dodger seams (Figure 23). Use these illustrations to clear up uncertainties in the descriptions that follow.

Attaching the Forward and Top Panels

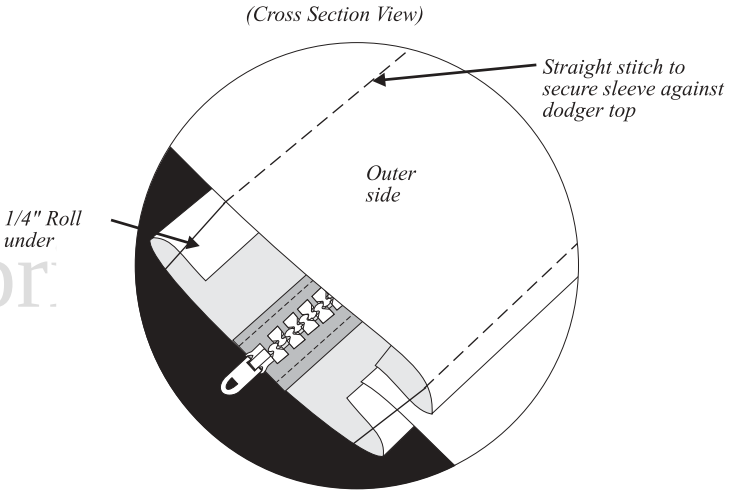
Place the forward panel with its inner side up on top of the outer side of the top panel (Figure 29). Over this place the short zipper/sleeve assembly created above with its unfinished side up. Center the zipper/sleeve assembly and match up the edges of all pieces over the forward edge of the top panel—the forward panel will have to be forced back to permit the edges to match up. Place a row of straight stitches 5/8-inch inside the matched edges from one side of the assembly to the other. Either start the stitches in the center and work toward both ends or carefully baste all the edges together with staples or pins before sewing. Use the match up marks that were put on the forward bow with tape to keep everything synchronized.

Figure 29



Unfold the forward panel and the zipper/sleeve assembly from the top of the top panel. The zipper/sleeve assembly should be folded all the way under the top panel—the forward panel will be folded out about 200 degrees. Press the zipper/sleeve assembly up against the bottom of the top panel and sew it in this position after rolling about 1/4-inch of the edge inside (Figure 23 & 30). Use a row of straight stitches to secure the zipper/sleeve assembly against the dodger top. Keep the folded edge down as it goes through the machine. Proper basting is very important here. Pins or staples and basting tape should be used to keep the sleeve edges in place. Be sure to remove any pins or staples as you sew. They will rust badly if left in place.

Figure 30



Place the tabling strip cut to match the curve of the lower edge of the forward panel on top of that panel (Figure 31). The strip should be placed so its curved edge matches that of the forward panel. When it is secured along the seam allowance and folded back, the curves will match. Stitch just as before about 5/8-inch inside the two edges (Figure 31). Careful

basting is a good idea here although an experienced sewer can usually do fine by starting in the center and working toward both ends. Then fold the tabling out and underneath the forward panel and place a row of stitches just 1/8-inch inside the folded edge. Now roll the inner edge of the tabling under about 1/4-inch and sew it down with a straight stitch (Figure 32). Staples can be used here to assure accuracy.

If this is a 3 bow dodger, lay the back top panel on top of the front one ("top side to top side") and run a row of straight stitches 5/8" inches inside the two matched edges. Unfold the aft panel and topstitch the seam allowance with a second row of straight stitches.

Adding the Zipper/Sleeve Assembly and Tail to the Top Panel

Next secure the long zipper/sleeve assembly and the tail to the aft edge of the top panel or panels. Place the tail on top of the outer side of the panel with the raw edge of the tail flush with the aft edge of the top. The curve in the tail should match that of the aft edge. Then place the zipper/sleeve assembly's unfinished side on top of the tail and top panel again so curves match (Figure 33). Match up the aft edges of all pieces. Staple or pin and baste everything in place carefully and run a row of straight stitches about 5/8-inch inside them all along their length. Again be sure to remove the staples or pins as you sew.

Fold the long zipper/sleeve assembly down underneath the top panel and place a row of stitches 1/8-inch inside of the fold (Figures 34 and 35). Now roll the inner edge of the sleeve under about 1/4-inch and sew it down (Figure 34).

At this point if there are any unsightly seams or edges that require a finishing touch, cover them with binding tape. For an outside edge, fold the binding tape in half

Figure 31

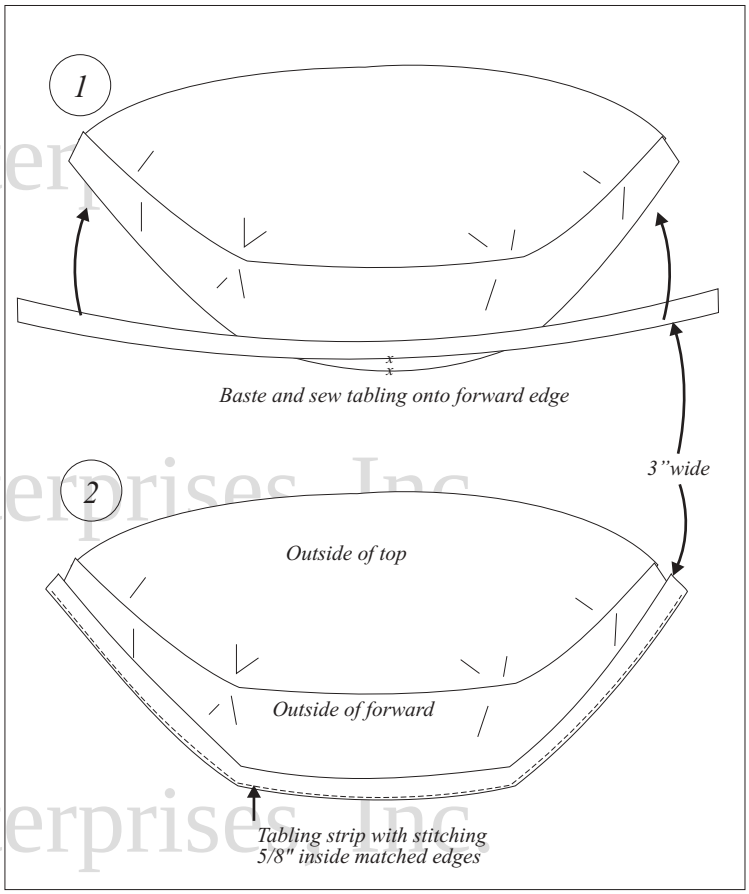
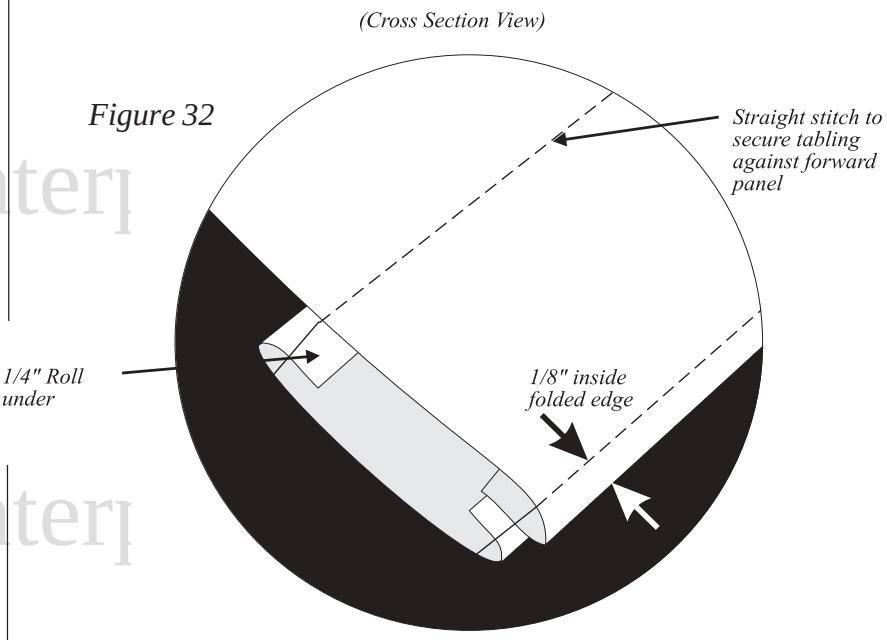


Figure 32



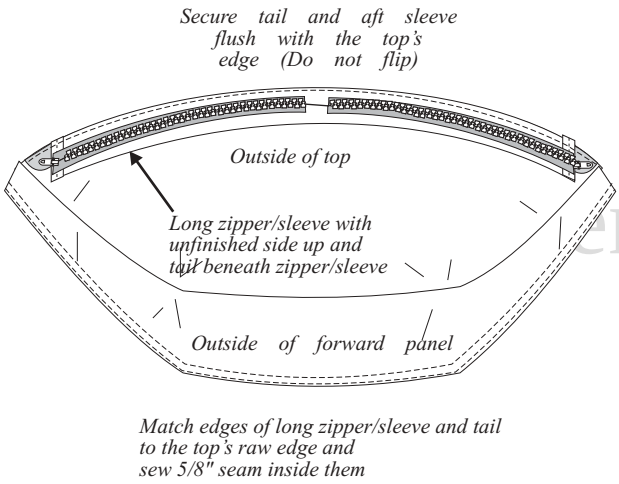


Figure 33

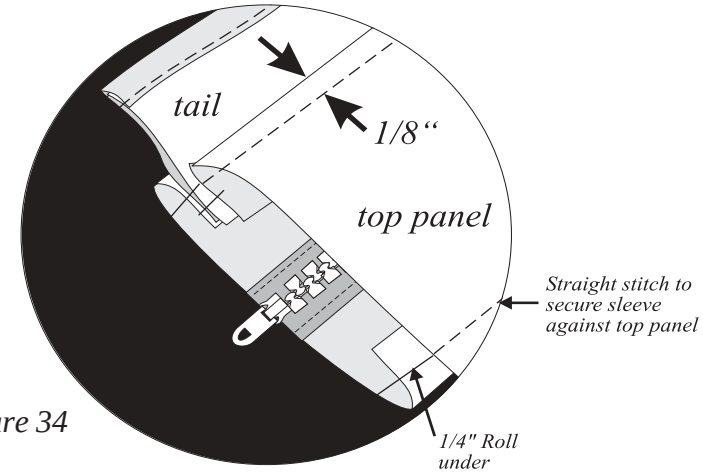


Figure 34

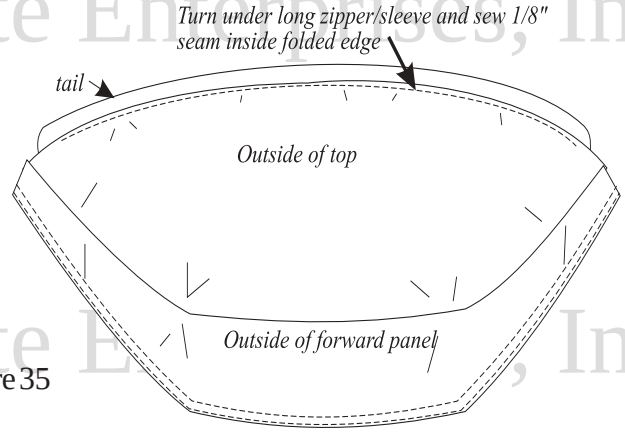


Figure 35

lengthwise and sew it to the dodger edge with a small zigzag stitch. If you use a straight stitch be sure to penetrate both sides of the binding tape. Cut any relief notches necessary in the forward panel using the pattern cloth to help with placement. These cuts should be reinforced with binding tape as well. To dress up a seam simply sew the binding tape in its "flat" form over the unfinished side of the seam. Here it is best to use a straight stitch along both edges of the tape.

The main part of the dodger is now complete. Install the snap fasteners along the lower edge of the front panel using the holes in the pattern as a guide. A strip of Velcro can be used to seal the dodger over a sliding hatch or snaps can be installed there as illustrated earlier in Figures 16 and 17. The hook part of the Velcro can be sewn to the dodger and the loop part glued (with contact cement) to the hatch itself. Needless to say, Velcro can be used anywhere else you like as well.

Side Curtain Assembly

With the dodger now essentially finished, once again check the side curtain panels to make sure that they still fit. If necessary, cut them down until they do but be sure to maintain the 3/4-inch seam allowance.

Install the tabling around all edges of the curtains. Place each tabling on top of the proper curtain edge and flush with it. The tabling should be outer side up over the outer side of the curtain. Sew with a straight stitch 5/8-inch inside the flush edges. Do one edge at a time to completion. Put a hem along the ends and the unsecured long edges of the tabling strips by folding 5/8-inch of the outer side back upon itself and sewing it down. Then fold the tabling under onto the inner side of the curtain and topstitch it.

Secure this tabling with a row of straight stitches along its inside edge. This is essentially the same procedure used along the forward edge of the dodger. See Figure 32.

Secure the side curtains to the dodger with twist-lock fasteners. This can be done by simply locating the fasteners in the dodger tail.

Snap or twist-lock fasteners can be used to secure the curtains to the hull or shock cord or rope can be used to stretch them out. This makes it possible to quickly release the curtains if that is necessary to provide access for sheets or for the swing of winch handles. See Figure 36 "twist-lock" fasteners (top two illustrations) and snap fasteners (bottom three illustrations).

Adding Webbing Straps

In order to properly tension the frame from aft, rig a strap to pull aft on the dodger frame (see Figure 1). The zipper sleeve makes access to the aft bow impossible. As a result it is necessary to create two slits in the aft edge of the sleeve so that a webbing strap can be led into the sleeve around the bow and back out. After determining where the two straps should exit the dodger, rip both rows of straight stitches for a distance of about 3 1/2 inches at each position. Now reinforce the edges of the slits with the sewing machine (Figure 37).

A good way to make an easily adjusted webbing strap is illustrated in Figures 38 & 39. To create this strap first cut two pieces from the 1" nylon webbing—18 and 6 inches long. With the right side of a webbing slider facing up, thread approximately 1 1/2" of one end of the 18 inch piece through the slider's smaller opening. Permanently attach the 18" piece to the slider by sewing the webbing loop just created down against itself. Now take the free end of the webbing and put one twist in it so that it does not lie flat. When this is done the webbing will appear to have an open collar on the end opposite the slider. (This twist is done in order to make the webbing lie flat when it is placed on the dodger frame.) Now bring the free end of the 18" webbing under the looped end and sew them together. There will be 3 thicknesses of webbing and they should be

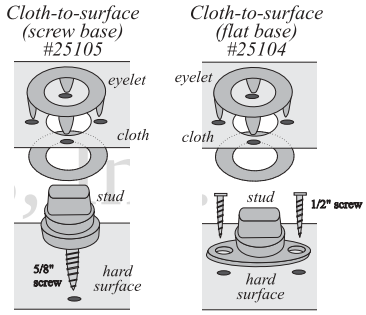


Figure 36

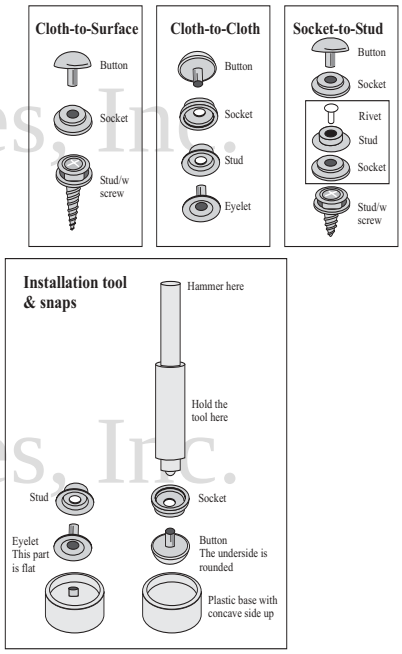
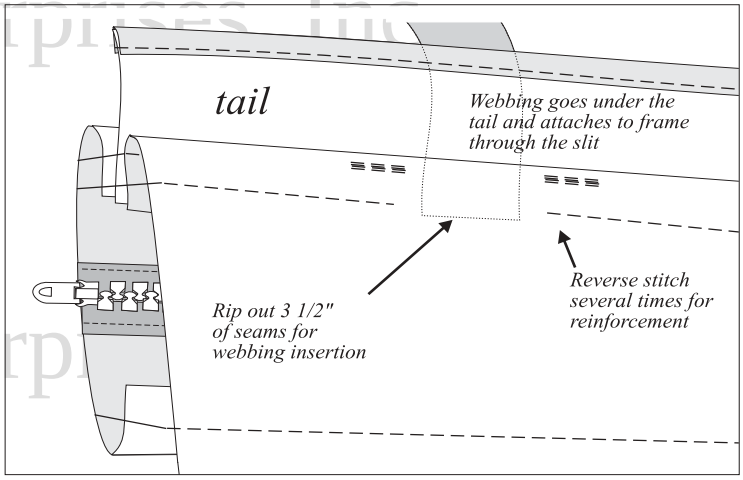


Figure 37



Opening for webbing on aft end of dodger top

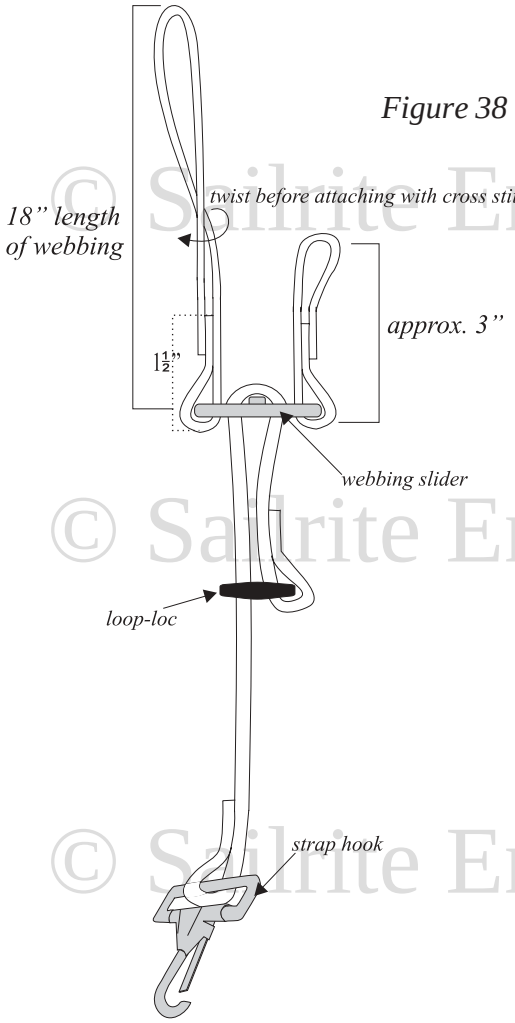


Figure 38

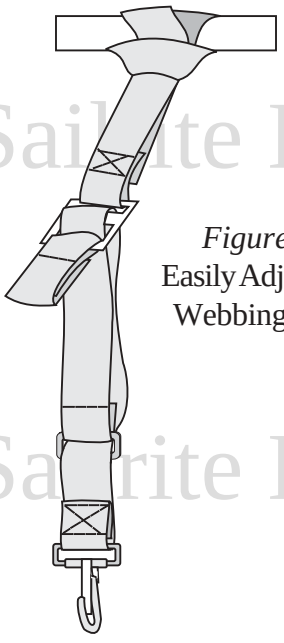


Figure 39
Easily Adjustable
Webbing Strap

carefully secured using medium sized stitches and sewing a box "X". Be sure when doing this to maintain the twist.

Take the 6 inch piece of webbing and thread it through the larger opening in the webbing slider. Secure it in place permanently using the same method described above except in this case a twist in the webbing is not needed. It should be approximately 3-inches in length when finished.

Cut another piece of the webbing to run through the webbing slider and down to the strap eye on the boat. Use the measurement from where the strap will attach to the dodger frame to where it will snap to the strap eye for its length. This length, when added to that 18 inch length of webbing with the twist will provide some extra length for adjustment. Permanently attach a snap hook to one end of this webbing by looping the webbing through the hook's rectangular opening and sewing the webbing down against itself using a bar stitch, i.e., sew back and forth in the same location at least four times.

Slide the square plastic loop-loc over the other "free" end and, then, loop the free end up from the bottom of the webbing slider through the small opening, over the slider's center divider and down through the slider's larger opening. This leaves the free end of the webbing on top of the assembly where it can be used to tighten the strap. To keep the strap from flapping sew the loose end to the loop-loc.

All that is left is to attach this webbing assembly to the dodger frame. This is easily accomplished by holding the open collar of the twisted loop on the 18" piece slightly above the outer side of the dodger frame. Now bring the snap end of the webbing strap up from behind the dodger frame and pass it through the collar. Pull the snap end to snug it in place. The resulting knot will look something like the knot on a man's tie.

Tightening this webbing strap is simply a matter of pulling on the long tail of webbing held down by the small plastic loop-loc. Loosening the webbing strap is simply a matter of pulling on the short loop created from the 6" piece of webbing. It works great!

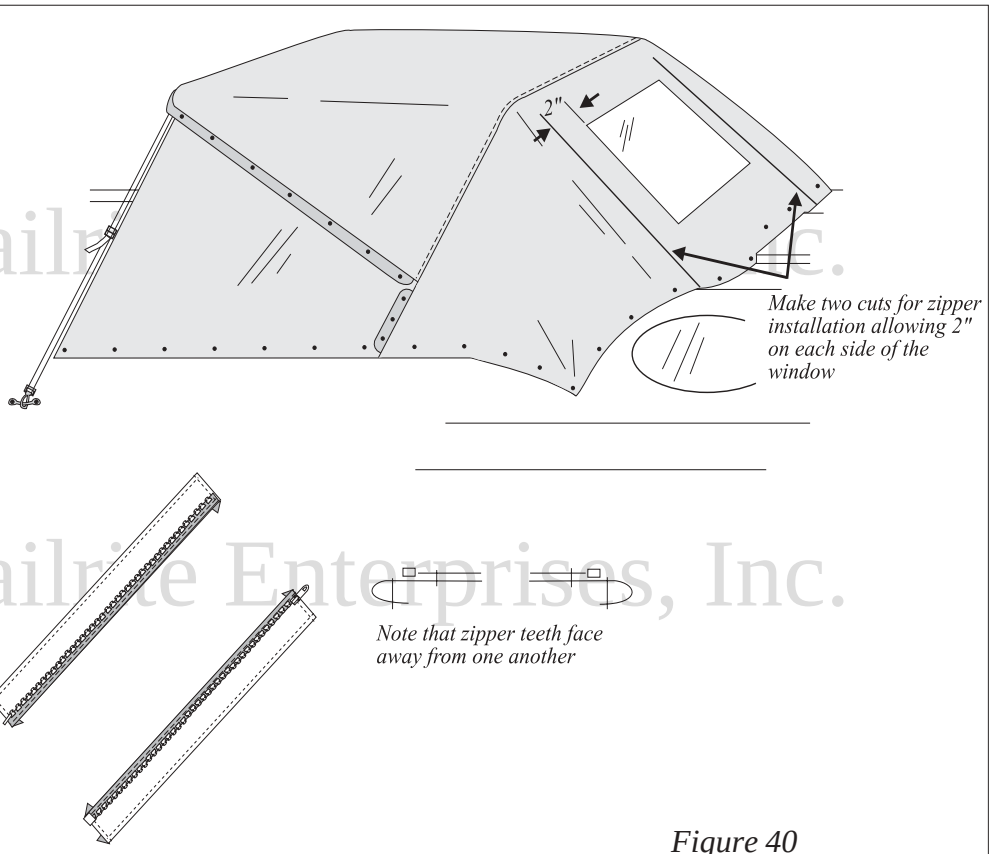


Figure 40

Optional Zipper Openings

In warm climates it is often a good idea to provide the option of opening up the forward wall of the dodger. This can be done by placing a #10 zipper on each side of the front window. These can then be unzipped and the cover material rolled up and neatly tied.

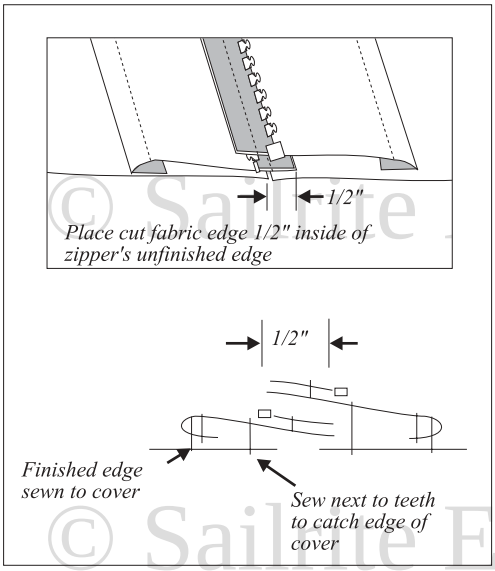
To install the zippers, cut the fabric*; allow at least two inches of material between the cut and the window edge. See Figure 40. Then make up four strips of fabric two inches longer than the cuts and three inches wide. Hem the short ends of these strips and one long edge by folding under 1/2-inch and sewing it in place. Sew one side of a zipper cut to the same length as the fabric to the outer surface of the unhemmed side as shown in Figure 40. Make the end of the zipper flush with one end of the strip. Note that the #10 YKK zipper can be sewn in place running either direction. Then sew the second zipper half in place so that it mates properly with the first. Repeat these steps with the second set of strips and zipper halves.

Next sew the zipper strip assemblies onto the face of the dodger along the cuts. The edges of the cut fabric should be 1/2-inch inside the unfinished edges of the zipper tape and strip assemblies. Place a row of straight stitches along both long sides of the strip assemblies. The stitches on the zipper side should be near the teeth so they will catch the cut edge of the cover. Note that the two strip assemblies will overlap 1/2-inch (Figure 41).

Now fold the zipper edges under so they mate properly (Figure 42). It will be necessary to cut the zipper tape at the upper end of the cut in the fabric

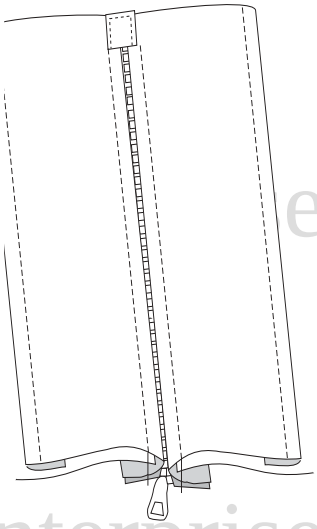
*A simple alternative to the zipper strips described here is to sew the closed zipper in place on the inside surface of the dodger. Then slit the face of the dodger and use binding tape to dress the raw edges of the fabric. Proceed as above with reinforcing tabs and zipper teeth closure.

Figure 41



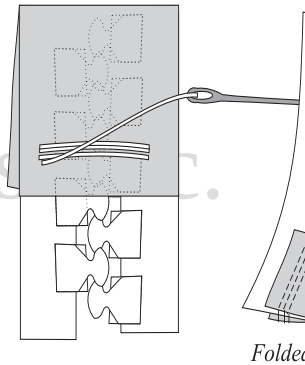
Sewing zipper tapes in place

Figure 42



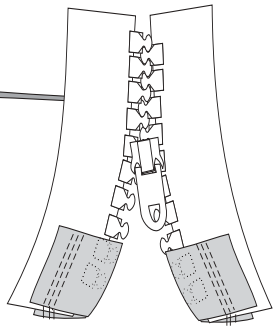
Finished zipper tape installed

Figure 43



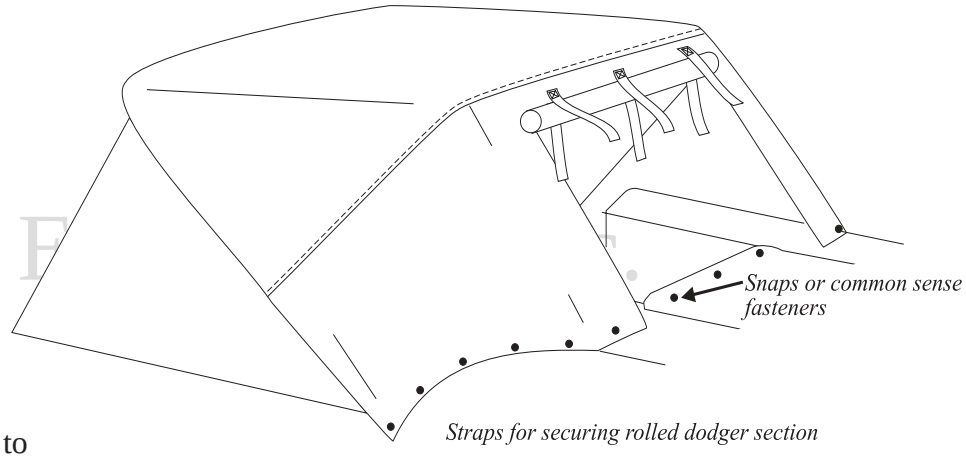
Folded leather sewn in place with twine

Figure 44



Folded leather patches to keep slider from coming off

Figure 45



Straps for securing rolled dodger section

where the zipper teeth are intended to end. Run a row of straight stitches along the back of the teeth to hold them in place. A fold of the strip of cloth should partially cover the zipper teeth—this helps keep out water and it improves the appearance of your zipper installation.

Use a small square of leather or fabric with well hemmed edges roughly two inches on a side to reinforce the inside upper end of the zipper tape. Sew it on all three sides over the overlapping zipper tapes (Figure 42). Also cover the last 1/4-inch or so of the meshed zipper teeth with this same material. Sew round the teeth a couple of times with a hand needle and twine to lock them together (Figure 43).

Use a length of twine to whip the opposite ends of the zipper and to prevent the slider from coming off. You also can sew a small leather tab in place here or cut away a tooth in a scrap zipper and weld it between the final two teeth with a soldering iron or gun (Figure 44).

Sew six inch strips of webbing or Velcro hook and loop tapes to opposite sides of the dodger just under the front bow and use these to hold the roll of material in place (Figure 45).

The dodger is now complete. But leather or binding tape can be used anywhere there is an unfinished edge or an edge that may be subjected to unusual chafe. The use of these protective materials will add a note of quality to any dodger. Don't hesitate to use them freely.

Sailrite
Self-Reliance Under Sail

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