

FUSELAGE

FIRST SECTION (of three)

FUSELAGE MOLDED COMPONENTS

The figure below shows the major premolded components of the fuselage assembly that includes such associated parts as the cabin doors, and the vertical fin.

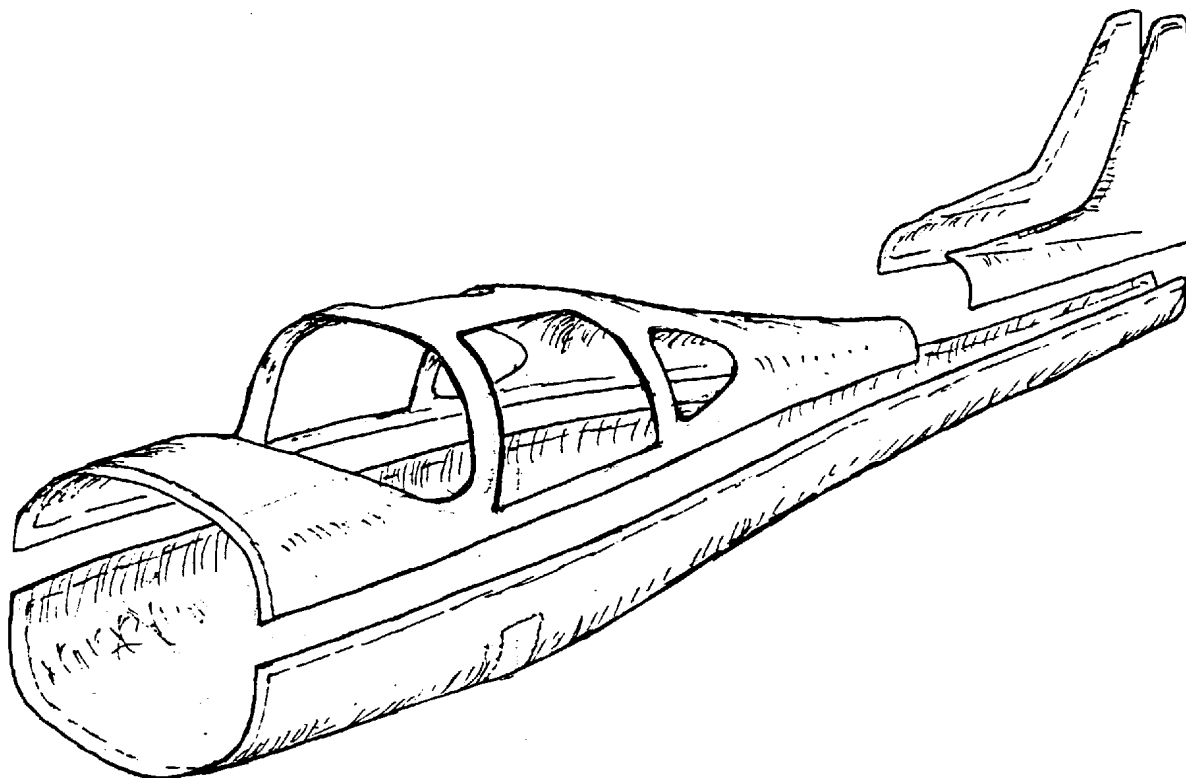


FIGURE - Exploded view of the moulded components for the fuselage

The initial steps will be preparing the lower fuselage section molding and fixturing and leveling. Trim and clean up the horizontal joint line of both the upper and lower fuselage molded parts, sanding any raw edges to minimize any cuts snags or slivers that might result from handling. The lower fuselage trim line is 2.0 inches above the “joggle”. The longitudinal factory “joggle” is located at Waterline 38, the trimmed edge 2 inches above this is Waterline 40. Trim this edge quite carefully, since this edge will be used for referencing during the leveling procedure.

The upper fuselage section should have the trim line scribe from the mold at WL 38, and this is where it should be trimmed. Care fully verify these lines before using them for cutting, The proper trim line for the upper section is WL38 and the lower fuselage section WL40. The proper overlap between these two parts should be 2.0 inches after all trimming, and fitting.

WARNING - THE STRIP OF BLACK MATERIAL ALONG THE FUSELAGE “BELTLINE” IS A CRITICAL CARBON FIBER STRUCTURAL REINFORCEMENT - AND MUST NOT BE CUT INTO FOR ANY REASON. NOTE THE POSITIONING OF

THIS MATERIAL AND MAKE SURE THAT IT IS NOT COMPROMISED IN ANY SUBSEQUENT OPERATIONS!!!!!!

REINFORCEMENT PATCHES/HARD POINTS

Before mounting the lower fuselage molding into the cradles, and leveling, invert the lower half, and add reinforcing patches, and what are referred to as “hard points”, for the seat belt attach fittings. Sandwich panel materials are very strong especially in view of their light weight, but require local reinforcement for concentrated loads such as seat belt attach points and the wing attach bolts. Performing this step at this time will avoid having to work against gravity, or dismounting and re-leveling the fuselage section at a later time. Prepare the fuselage surface in the area to be bonded by washing with solvent, and roughening the surface with sandpaper as outlined in the procedures section. Cut away a 2 by 10 opening in the outer skin centered at station 84 as shown on attached figure, and carefully remove the foam core in this zone to the inner skin. Clean surface of inner skin and remove debris in preparation for inserting the hard point insert. Cut a piece of the furnished 1/4 inch thick phenolic material to fit this cut out, and clean and rough en both surfaces of this phenolic. Bond this part in place, and fill around the edges with a FLOX mix. Prepare the surface area around this hard point for bonding by cleaning with solvent and roughening with coarse sandpaper. Wet out the bonding area with a p73 wet brushed on epoxy, and apply a 4-layer BID patch over this opening with at least a 2-inch overlap around the edges. Stagger the edges of the BID overlap for a tapered effect around the patch. Taper the sizes, starting with the largest being applied first, to avoid a sudden discontinuity in the surface.

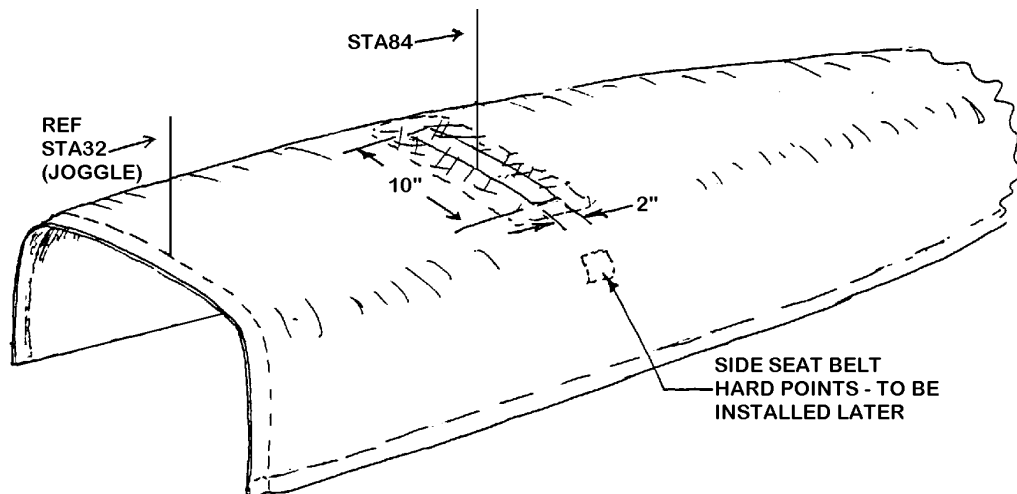


FIGURE - Sketch of reinforcement for seat belt hard points

LEVELING AND FIXTURING

Three sturdy saw horses or similar supports should be procured or fabricated to support the fuselage bottom half during subsequent fabrication steps. Three cradles should be cut out of at least ½ plywood or similar panel material. Front and rear cradle contours can be traced from the appropriate ends of the molded part, and cut out using a saber saw or similar tool. A cardboard pattern should be made of the fuselage section just behind the wing (about 70 inches aft of the firewall), and a cradle cut for this contour as well. Some relatively thin padding material (terry cloth, blanket, thin foam, etc.) should be used on the surface of the cradle where it will contact the fuselage surface.

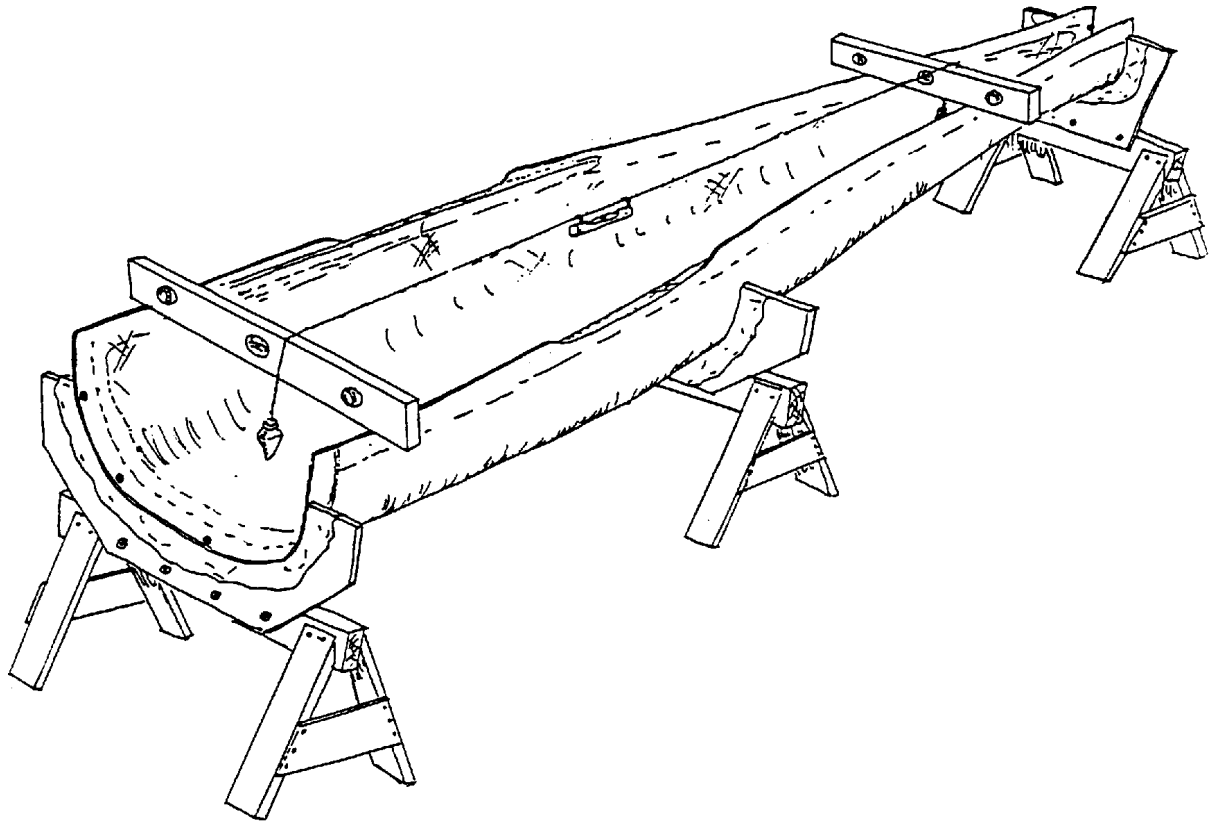


FIGURE - Fuselage bottom on horses with string and levels

Drywall screws or similar self-drilling screws will facilitate attaching these cradles to the face of the sawhorse top bar, and make changes of position during the leveling phases quick and easy. Use a level and string to level the horizontal bond line of the fuselage molding both crosswise and fore and aft (see fig.). Be aware that there is a step in the longitudinal trim line, and use a proper reference for the fore and aft leveling. This step is only in the cockpit area, avoid this area in establishing reference points for the longitudinal leveling.

It is suggested that drywall screws or similar fasteners be used at each end, to secure the lower molded fuselage section to the cradle in the proper position. Locate the cradles at the very ends of the flanges at each end, to permit access for installing the firewall, and other features into the fuselage. Put the screws through the solid fiberglass in the end "joggles", near the very end of the part. Temporarily remove the screws during bonding operations in these local areas to avoid trapping them in a lamination. Check the set up to make sure that the part will not shift out of position during subsequent operations. If it becomes necessary

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TEMPORARY FITTING OF THE FUSELAGE TOP

The fuselage upper section will be temporarily installed to assist in placing some of the other components. Align the axial position of the two assemblies by matching the joggle line at the forward (firewall) end of both parts. If the parts were properly trimmed, the vertical position will be established by the trimmed edge of the upper part resting on the shoulder of the joggle in the lower part along this “beltline” verify this fit, and temporarily attach the top section by drilling holes at locations about 2 feet apart and inserting the proper size Cleco’s to securely join these assemblies (small bolts or sheet metal screws can be used in place of the Clecos). It may be useful to store the upper fuselage section in this temporary installed position whenever there is no work going on in this assembly. This storage location will help these parts retain their shape until final bonding.

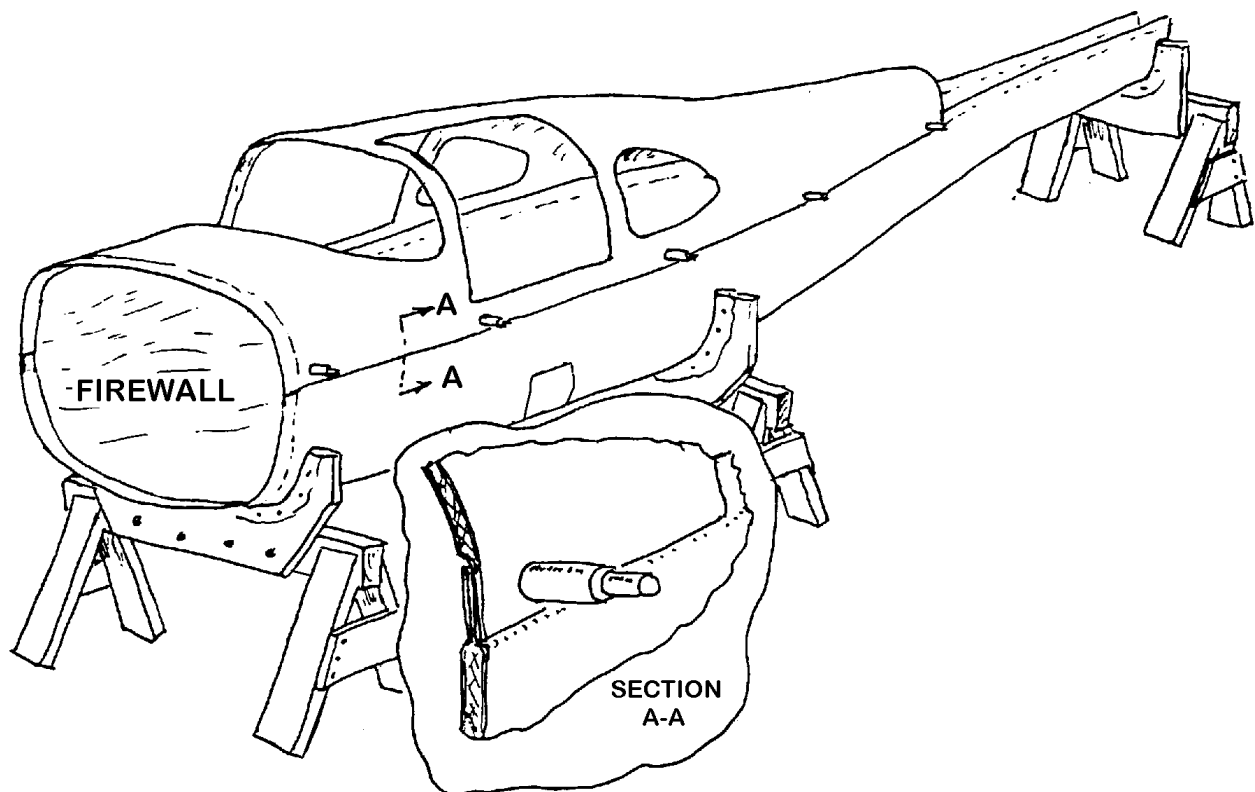


FIGURE - Temporary installation of fuselage top

Spreader sticks should be used to provide the proper width at the appropriate stations, since the molded parts have a tendency to close together in handling and shipping. Fabricate these spreader sticks from nominal 1 x 2 lumber material that is reasonably free of knots, and relatively straight. The list of suggested stations and outside fuselage width dimensions at those points are shown below.

Station (FROM FIREWALL)	Outside Fuselage Width
103.5 (71.5 in.)	38.5 in.
152 (120 in.)	21.375 in.

FIREWALL

The firewall will be fabricated from the ¼-inch plywood piece included in the kit parts. This piece of plywood should have the outline, and location of major features (such as engine mount locations) marked on at the factory. Some slight amount of trimming will be required from this line to finally fit it to the fuselage. The firewall cutout should be inserted into the forward portion of the two fuselage halves, and pushed back to the reference location. The back surface of this plywood firewall is to be set at Station 32, with considerable care and precision, since this will be used as reference for many of the assembly procedures. Station 32 is described as the edge of the “joggle” for the cowling rear overlap (see figure).

Four holes about 1/16 inch diameter may be drilled through the edge of this “joggle” to visually determine the location, and the plywood may be temporarily secured with large pins, or small nails through these holes. Assure that the firewall is vertical and square in place, and also use the level line on the firewall to assure proper vertical placement relative to the Waterline references on the lower fuselage section (the joggle at WL 38 and the trimmed edge at WL 40). Also verify the fit with the upper fuselage half before “tacking” it to the lower section with 5-minute epoxy. As mentioned before, when “tacking” in place with 5-minute epoxy, be careful not to spread the epoxy over a wide area. The fast curing epoxies have significantly lower structural bond strength than that of the slow cure mixes, and any area covered by the fast epoxy will have this “weak link” in the joint. Keep the 5-minute epoxy “tacks” as small and local as practical.

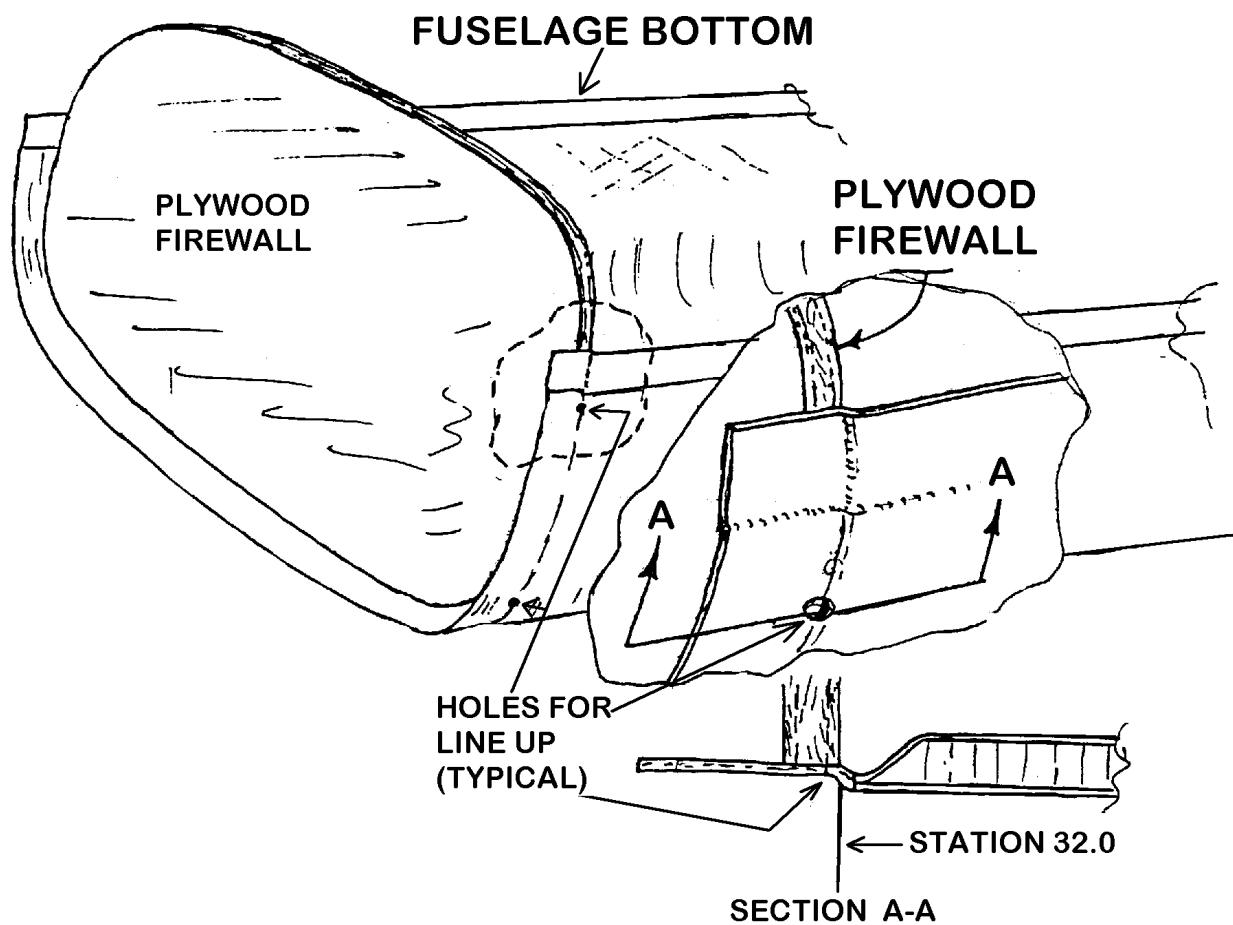


FIGURE - Joggle and station 32 reference

Prepare the inner surface of the fuselage flange and the forward face of the firewall for bonding. Tape the firewall in place with 2 plies of 3 inch wide pre-lam BID between the inside surface of the lower fuselage section and the front face of the firewall.

ENGINE MOUNT REINFORCEMENTS

The engine mounting points will be marked on the plywood firewall panel. Cut out the triangular shaped gussets and the firewall cross stiffening strip, from the same plywood panel that you cut the firewall from. The patterns for these parts should also be factory marked on this panel. Attach these plywood gussets, and the firewall cross stiffening strip on the inner surface of the firewall panel and to the lower fuselage section

inner wall with dabs of 5-minute epoxy. The location for these stiffeners is shown on the enclosed figure. The full width stiffener should be mounted with its upper surface $1\frac{3}{4}$ inches below the upper engine mounting hole centerlines. The upper triangular gussets are mounted with the upper edge aligned with the top surface of the upper edge of the fuselage flange (waterline 40). These gussets should be angled upward such that the lower surface is $1\frac{1}{4}$ inch from the center of the engine mount bolt hole, to provide adequate clearance for the washer which will be installed at each of these mounting points. A fillet of dry MICRO should be worked into place on the underside of the joint along the fuselage flange to provide proper backing for the subsequent layers of BID. The gussets for the lower mounting holes shall be installed $1\frac{1}{2}$ inches on each side of the engine mount bolt center line location, as marked on the firewall pattern, and shown in the figure below.

Note all areas that will be covered by the bonding layers of BID and clean and abrade these areas with coarse sandpaper.

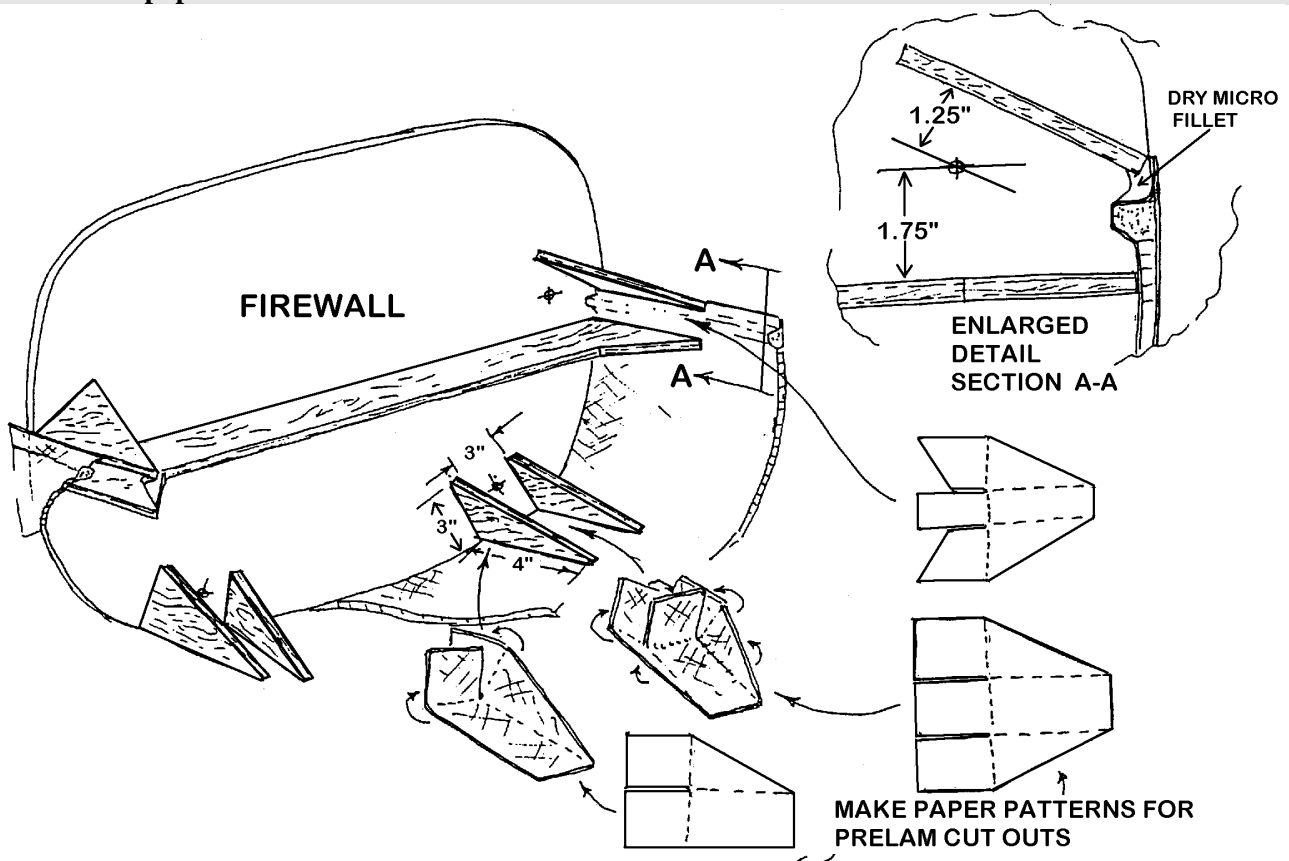


FIGURE - Firewall installation with gussets.

Make paper patterns in roughly the shape and sizes shown in the drawing below. The areas between the upper braces will be the most demanding because of the angle between the gussets. Try to optimize the pattern to provide full coverage on the firewall in the bolt area with the three layers of 8 ply each overlap. Make up an 8 layer BID section of the required size (provide generous margin) on a plastic sheet and wet out with resin, apply the top plastic sheet and cut to the pattern developed for the appropriate gusset set. Wet out the surface that the pre-lam BID will cover with a good wet coat of brushed on epoxy (this applies to all areas where the prewetted BID is to be applied, and helps to assure a good bond in these areas). Remove one layer of plastic and install between each set of gussets with the wet side to the structure. Fold the "ears" of this BID such that there are now 3 of these 8 ply layers (24 BID layers total) bonded on the back side of the firewall where the holes will be subsequently drilled for the mounts. Remove the plastic backing as you install the glass cloth to avoid having any plastic in the overlap areas, and work any bubbles out of the resin with a brush or squeegee. You should probably do the first of these laminations one assembly at a time to avoid rushing against the time barrier of the resin working time. The outsides of each of these gussets are reinforced in a similar fashion, also with an eight layer pre wetted BID pattern, but with the angle cut "wing"

on only one side. The upper surface of the upper gussets will require special treatment, and probably should be delayed until the fuselage top is being permanently installed.

ADDED REINFORCING IN FIREWALL AREA

Any previously cured BID layers which will be bonded to in later steps must be roughened and cleaned prior to applying added layers. This applies to any portion of the assembly process, and should be kept in mind when scheduling layup work (what you leave unfinished in one work session will have to be re prepared before continuing at the next work session).

Bond the uncovered upper surface of the cross stiffening strip, in place with a 12 layer BID tape, with roughly a three inch overlap on the plywood firewall, and long enough for a 2 inch overlap on the BID used for the engine mount gussets. This is the reinforcement for the upper nose gear attach point, and the heavy loads on this gear mounting are the reason for the generous number of layers. Green trim the surplus glass cloth overhanging the edge of the plywood parts, or grind these edges to shape after curing.

The mounting area for the lower gear attach assembly is near the bottom edge of the firewall, so prepare a 20 layer, 6 inch wide BID tape for the firewall joint between the bottom two engine mount gussets. Bond this tape along this joint with at least a three inch overlap on the plywood, where the lower gear leg supports will be installed, and a 2 inch overlap on the BID retaining the engine mount gussets. **IMPORTANT** - Any remaining unbonded perimeter of the firewall and the lower fuselage section, should be taped with a two layer three inch wide BID tape.

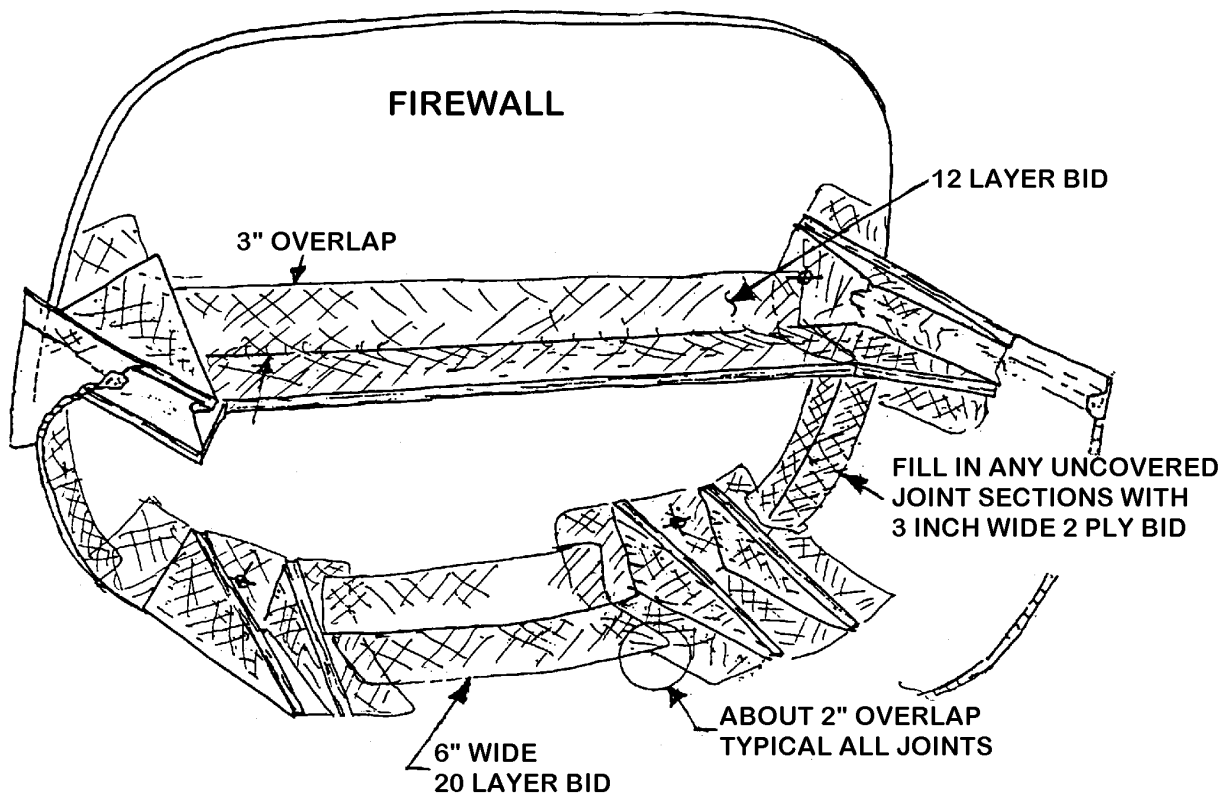


FIGURE - Added reinforcing on the firewall

STATION 153 BULKHEAD

The mid tail cone bulkhead is located at station 153. This bulkhead is cut from a section of the two ply prepreg panel that has the outline of this part drawn on the panel at the factory. Cut this part out carefully since the station 189.5 bulkhead is outlined in the center cut out from this part. Use a fine tooth saber saw blade or similar tool for this operation. The outline provided is on the generous side, so some trimming or block sanding may be required to fit it to the two fuselage halves. Carefully install and remove the fuselage top half for fitting these components.

The 153-station location is to the aft face of this panel (152.75 at the front face. Remember that the station 32 reference is at the "joggle" where you lined up the firewall, and reference these locations from that point). Test fit the bulkhead into the proper position, trimming as required for a good fitted joint, and prepare both the bulkhead surface and the inner fuselage surface for bonding. Mark the upper fuselage edge position (Waterline 40) on the bulkhead, and remove it for fitting the shoulder belt "hard points". Drop down a half inch and locate a one and a half inch square "hard point" insert with its upper edge at this half inch point, and its outer edge flush with the outer edge of the bulkhead on both sides.

Use a section of the 1/4 inch aircraft ply wood for these inserts, close out the open surface side of the insert with a 4 inch square of 2 ply BID at this time (numerous plies will be added after installation).

Fit the bulkhead and align it carefully and secure in place to the bottom fuselage half with some dabs of 5-minute epoxy. When it is in satisfactory position and secure enough to work with, bond it to this lower section with two layers of two inch BID tape on both front and back faces. In this location, as other places where there is an inside angle joint, fill the corner with a small radius MICRO/FLOX fillet, and wet out the bonding areas with brushed on epoxy. Provide a uniform 1-inch overlap on each part. Use additional sections of the 2 inch wide 2 ply BID tape laid axially to build up to 6 added layers on each side in the shoulder belt hard point area. Taper out the thickness against the fuselage by using staggered lengths of the tape (8, 6 and 4 inch long with fuselage inner skin overlap of 6, 4 and 2 inch respectively). When the system is fully cured, drill the hole and install the AN43-12 eyebolt on each side as close to the fuselage skin as installation will permit.

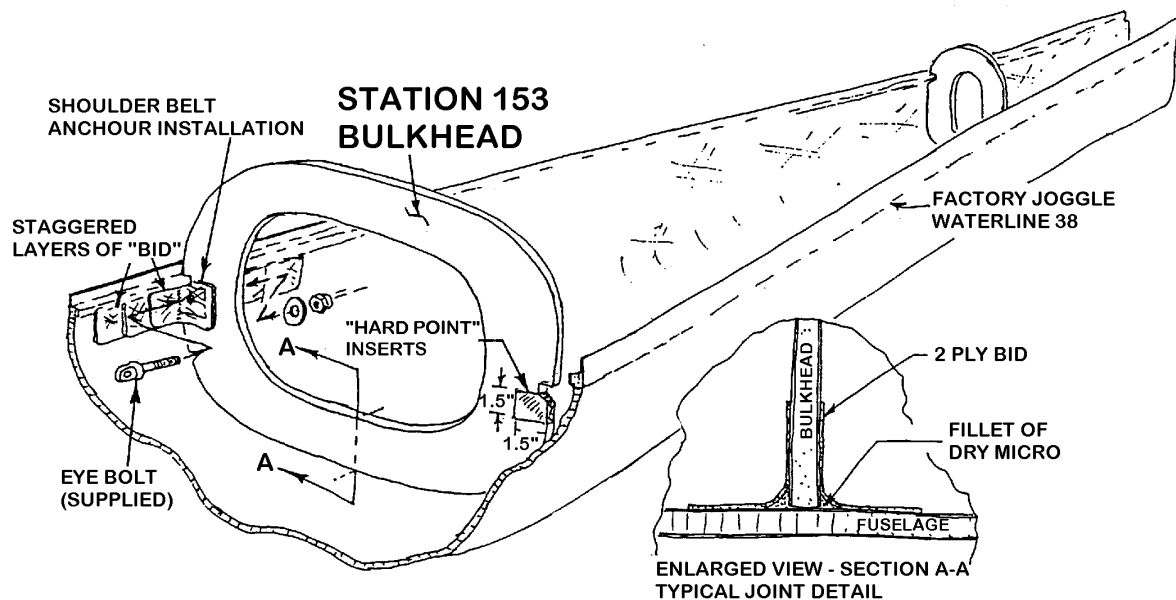


FIGURE - Sta. 153 bulkhead installation. (With shoulder belt attache points)

STATION 189.5 BULKHEAD

The aft tailcone bulkhead is located at station 189.5. This bulkhead is also cut from the premarked two ply prepreg panel (inside the opening of station 153 bulkhead). This part also should be cut out carefully with a fine tooth saw, and located with the front face at the 189.5 station. This also may need to be trimmed for proper fit, and should then be tacked into place with 5-minute epoxy. This bulkhead will have to be removed temporarily during the installation of the horizontal stabilizer, so use a minimum amount of the 5-minute epoxy in “tacking” it into place.

SPAR BOX FABRICATION

The spar box will be fabricated from the ¼ inch foam material supplied in the kit. The finished assembly will be an inverted “U” shaped section that must be fitted to the bottom of the lower fuselage section at the proper location (the centerline of the main spar is to be located at STA. 66.55). Before assembling this “U” section, some “hard points” must be prepared in both the front and back panels of this box.

A “hard point” as described in the procedures section, is typically established, as in this case, by removing a section of the light weight core material, and replacing it with a higher density, stronger material. Cut the shape shown in the template for the front and back faces, and the 3 1/8-inch wide top section, from the ¼ inch foam material. Cut out four rectangular pieces from the ¼ inch phenolic material, 3 inches wide by 5 inches long. **IMPORTANT** - Roughen the surface of the phenolic pieces with coarse sandpaper, otherwise the slick surface will not bond well into the sandwich structure. Lay these pieces on the face panel foam cutouts, with the 3 inch side flush with the upper (straight edge), separated by 30 inches between centers (two per face)(see figure). Use the phenolic as a cutting guide and cut out and remove the foam, so the phenolic can be placed inset into the core. Put the phenolic pieces in position, and squeegee a thin layer of micro slurry on the surface of all three foam parts (faces and top). Use a thicker micro slurry to fill any voids between the edges of the phenolic inserts and the foam cut outs. **HOWEVER**, the surface of the phenolic inserts should be wet out with straight epoxy resin (no MICRO) for maximum strength. Cover each of these assemblies and the top center section with two layers of BID (“green trim to edges of foam).

After the two layer BID cures, mark one of the face panels “FRONT”, and the other one “REAR”. On the forward face of the rear panel make the three one inch wide cutouts in the foam, 3 inches long on the outer ones, and 3½ inch long on the one between as shown on the sketch. Note that the cut out between the other two is not in the center, being offset to the side that will be the pilot’s side in the final assembly. Chamfer the edges of these cutouts at roughly 45 degrees. Clean the foam away from the back side of the cured BID face to prepare that surface for bonding. Squeegee a thin layer of MICRO slurry over these foam surfaces. Again use a thicker MICRO mix to fill any voids around the phenolic inserts, but cover the Phenolic surface with straight epoxy (no MICRO). Cover the foam surface of all three parts with 2 ply BID, working the glass down into the foam cut outs in the rear inner face assembly (these recesses are for the bolt heads which will be used to attach the control stick assembly brackets, and the flap actuation system, at a later time). Two additional layers of BID should be applied in these local cutout areas, overlapping about an inch onto the flat foam surface on all sides, and working them well down into the cut out areas as above, trim the overlapping BID, and clean up edges flush with the foam after the resin cures.

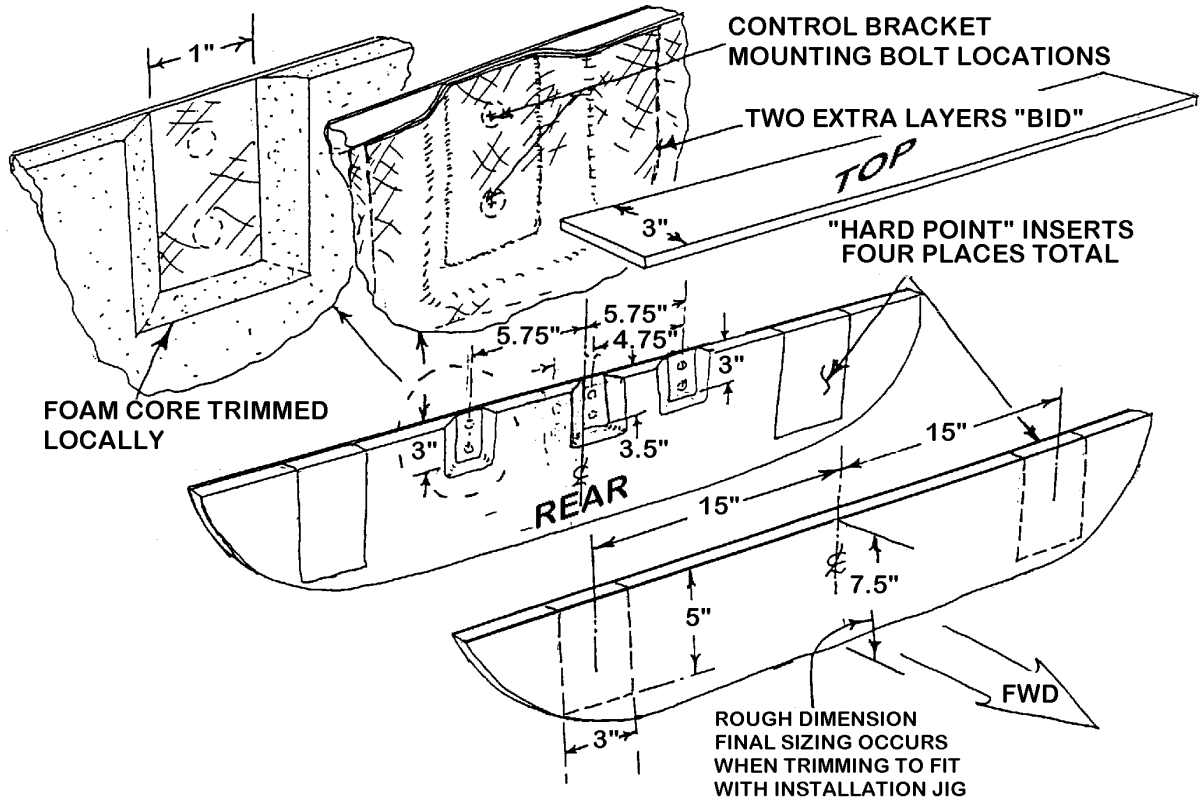
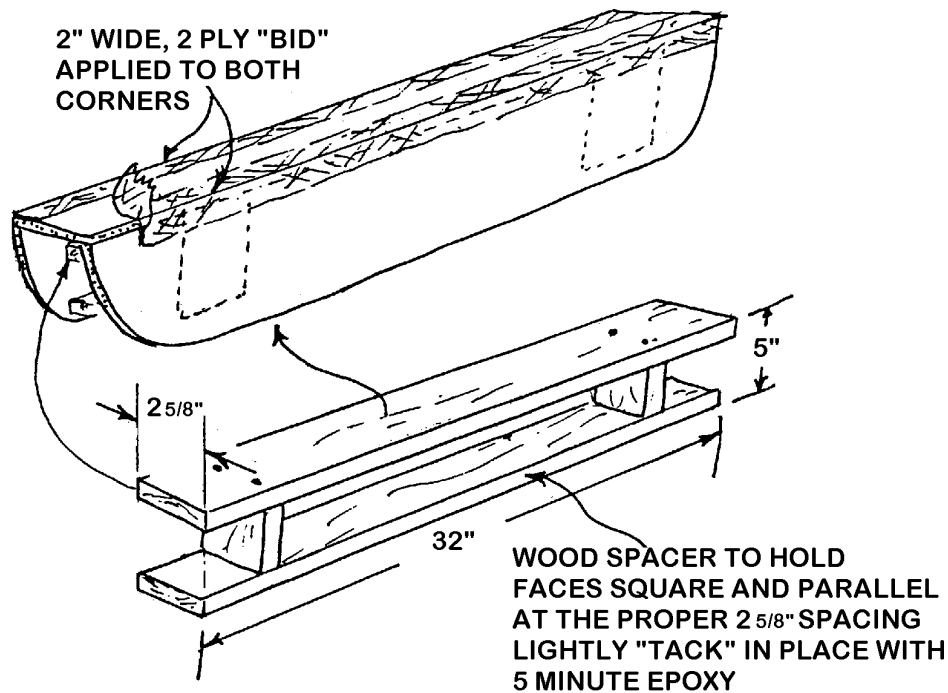


FIGURE - Spar box fabrication and dimensions

The best way to assemble the spar box with parallel sides and the proper spacing is to make up a 2 and 5/8 inch thick softwood "block" assembly, and lightly tack the faces to this block with 5 minute epoxy, making sure that the two faces are centered on each other, and the top edges are in line and parallel. This spacer block is left in place until the spar box is bonded to the fuselage, and the spar cut out completed. Bond the top plate on this inverted "U" assembly, with 2-inch wide two ply BID tape along each corner.



REAR SPAR

The rear spar is fabricated from a strip cut from the same $\frac{1}{4}$ inch aircraft plywood as used for the firewall. Cut a strip $3\frac{1}{2}$ inches wide by 44 inches long. Apply a 6 ply BID on both faces of the plywood spar, holding the strip flat with no bend or twist during the resin cure. "Green trim" the edges, and grind any overhang flush with the edges when the resin cures.

SPAR POSITIONING JIG

Both the front (spar box) and rear spar are positioned using the installation jig shown in the sketch below. The two sides must be cut out accurately from at least $\frac{1}{2}$ plywood or medium density particle board using the template provided in the kit. The top positioning boards shall be straight lengths of board at least standard 2 by 2 inch section. These boards suspend the jig from the Waterline 40 position. This position is located using the factory joggle along the fuselage belt line as a reference (Water line 38). Carefully and accurately fabricate 2-inch wide sections of plywood and temporarily (but securely) attach them lined up with the joggle, to support the spar location jig. This jig both positions the wing at the right station, and also establishes the angle of incidence of the wing by positioning the spars.

BE SURE THE JIG IS POSITIONED SQUARE AND LOCATED AT THE PROPER STATION BEFORE SECURING EITHER SPAR. CHECK DIMENSIONS FROM BOTH FRONT CORNERS OF THE SPAR BOX TO THE FIREWAL REFERENCE. BE AWARE THAT THERE IS ABOUT A FACTOR OF SEVEN IN AN ERROR BETWEEN THESE MEASUREMENTS AND THE TIP OF THE WING (A $\frac{1}{8}$ IN. ERROR HERE WILL BE NEARLY ONE INCH AT THE TIP).

The spar jig should be tacked in place with hot glue to prevent it from shifting position. Clean and roughen areas where the spar box and rear spar will be bonded.

Using the spar jig as shown in the sketch below, position the spar box assembly in its proper location. Trim the edges of the spar box assembly as required, to provide a good fit with the inner surface of the fuselage (the inset "hard points" of phenolic may be cut into in fitting the spar box to the fuselage, do not be alarmed). "Tack" the spar box to the positioning jig with spots of 5-minute epoxy. Keep the spar jig in place for the rear spar assembly.

Use the spar positioning jig as a guide, to establish the location for the fuselage wall cutouts for the rear spar. Insert the spar through these cut outs, and center it carefully, and locate it fore and aft with the spar positioning jig. Tack it to the spar positioning jig with dabs of five minute epoxy. When you are satisfied that the location of the spar box and rear spar is correct (double check the "square" dimensions), temporarily bond them both in place with two ply BID where this can be accomplished disturbing the jig or location.

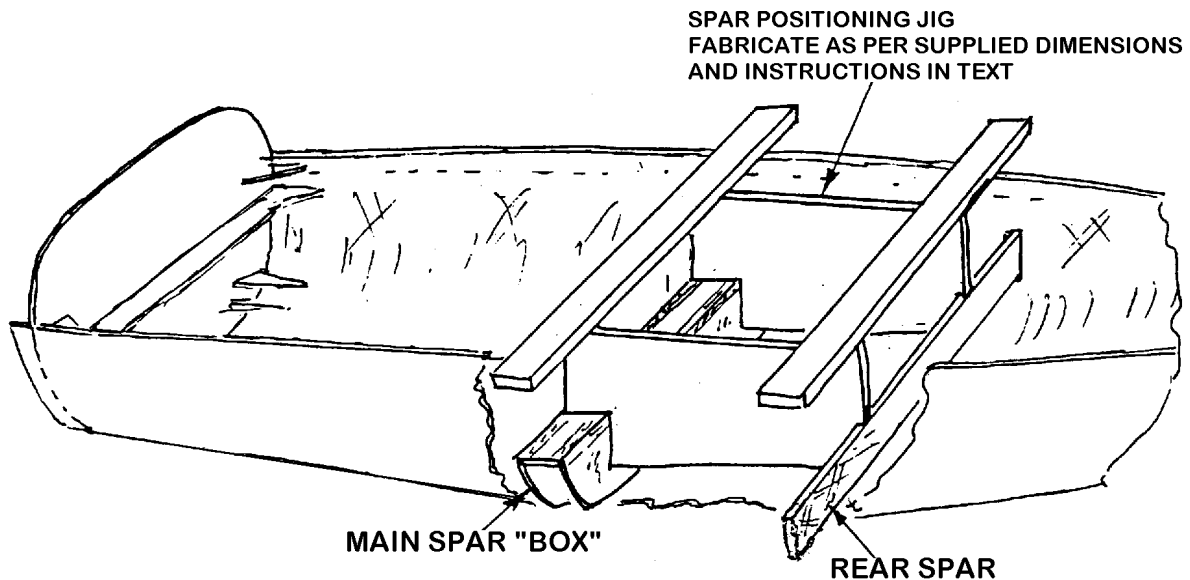


FIGURE - Spar positioning jig

When these temporary laminations have cured, and the spar box and aft spar are securely located, carefully remove the locating fixture and proceed with the final structural laminations for these assemblies.

These are large layups and it may well be a good idea to concentrate on one end of the spar box at a time, to avoid returning at another session and having to roughen and prepare large areas of cured BID for added layers.

Thoroughly clean and roughen with coarse sandpaper, all surfaces to be bonded. Fillet all inside corners with dry MICRO where the laminations will be applied, and wet out these surfaces by brushing on a layer of epoxy. For the spar box, prepare the BID wet layups on plastic sheet as described in the procedures chapter (Pre-lam's). Make paper patterns to test the shape of the pre wetted BID patches. The rear overlaps on the spar box should cover the hard point inserts in the spar box, and continue inward to Butt Line 10 on both sides to provide reinforcement for the gear box stiffening ribs which will be added later. The front and top overlaps should extend inward to Butt Line 12.5 to stiffen the spar bolt areas. The overlap to the fuselage inner surface shall be a minimum of 4 inches. The total BID thickness will be 16 layers, but it is suggested that the patterns be prepared in two 8 layer sections. Cut the first BID sections slightly oversize to encompass the maximum area of bonding to the fuselage skin. Apply first the side sections and then overlap these side sections with the top section, which should slightly wrap over the side layup. Prepare the second set of BID material, cutting these sections slightly undersize (about 1 inch less overlap on the fuselage inner skin). Apply these layups such that overlaps and seams will not be at the same locations as the initial 8 layers. This location procedure will avoid concentrated loads in either the skin or the BID layups. Work the BID down into all surfaces and corners

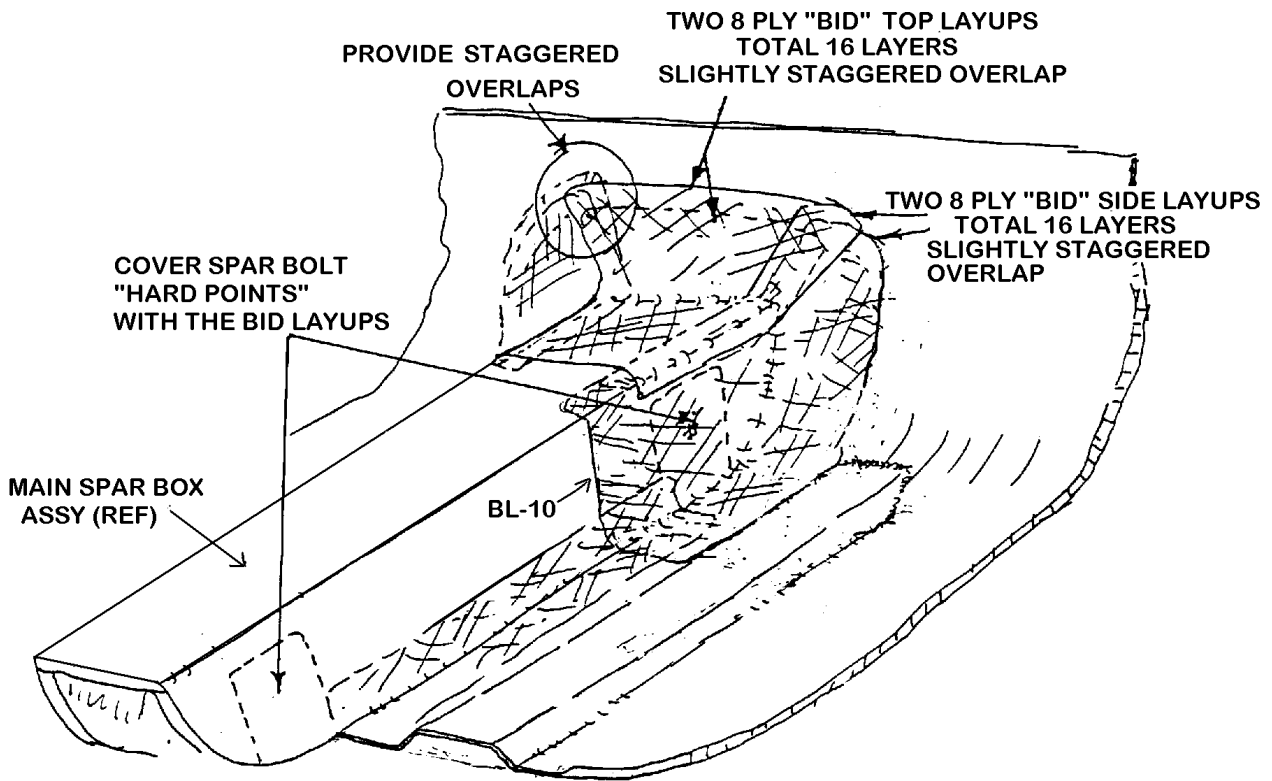


FIGURE - Spar box lamination into fuselage

After the BID cures, the opening for the spar can be cut into the fuselage skin section. Using a fine tooth saber saw, cut the opening to rough size, significantly smaller than the finished size. With the visibility provided by the rough cut opening, carefully trim the opening flush with the inner surface of the spar box.

Before the rear spar is bonded in place, a 1 and 1/2 inch square hard point should be inserted from the outer surface centered on and immediately adjacent to the front surface of the rear spar where it penetrates the fuselage (see *figure*). The inner laminates are 4 by 6 1/2 inch rectangles of four ply BID with the lofig edge set flush with the spar top edge. The rectangle will splay out when fitted into the corner and provide the desired overlap pattern on the inner surface of the fuselage. The outer laminate should be precut to the pattern shown in the figure. Cut out a dry pattern and test assemble the lamination to refine the pattern for optimum fit.

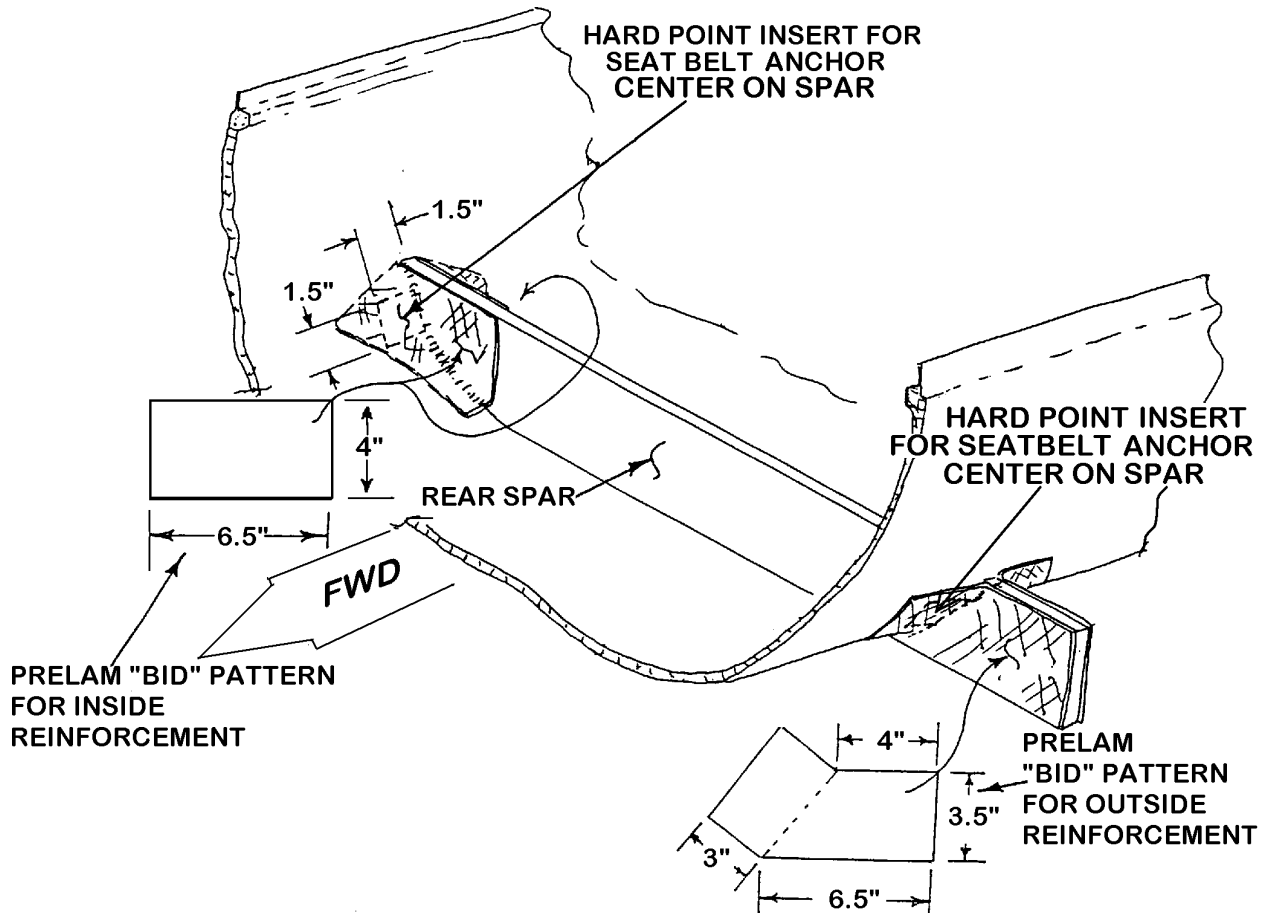


FIGURE - Rear Spar lamination into the fuselage.

MAIN GEAR BOX REINFORCEMENT

Added reinforcement will be used in the main landing gear mounting area to distribute the landing gear impact forces over a large area, and also use the spar box area as added structure. Cut a 3½-inch wide section of the ½ inch foam supplied in the kit, and fit it into the fuselage bottom, behind the main gear “box” at the radius run out point. Spacing it back to this point is required to provide clearance for the washers on the main gear mounting bolts. This should go the full width of the fuselage, trimming it into the side curvature at each side (reference sketch below). A wedge shape strip of foam can be cut to aid in filling the void between the gear “box” and this vertical foam strip. Tack the foam pieces in place with 5-minute epoxy.

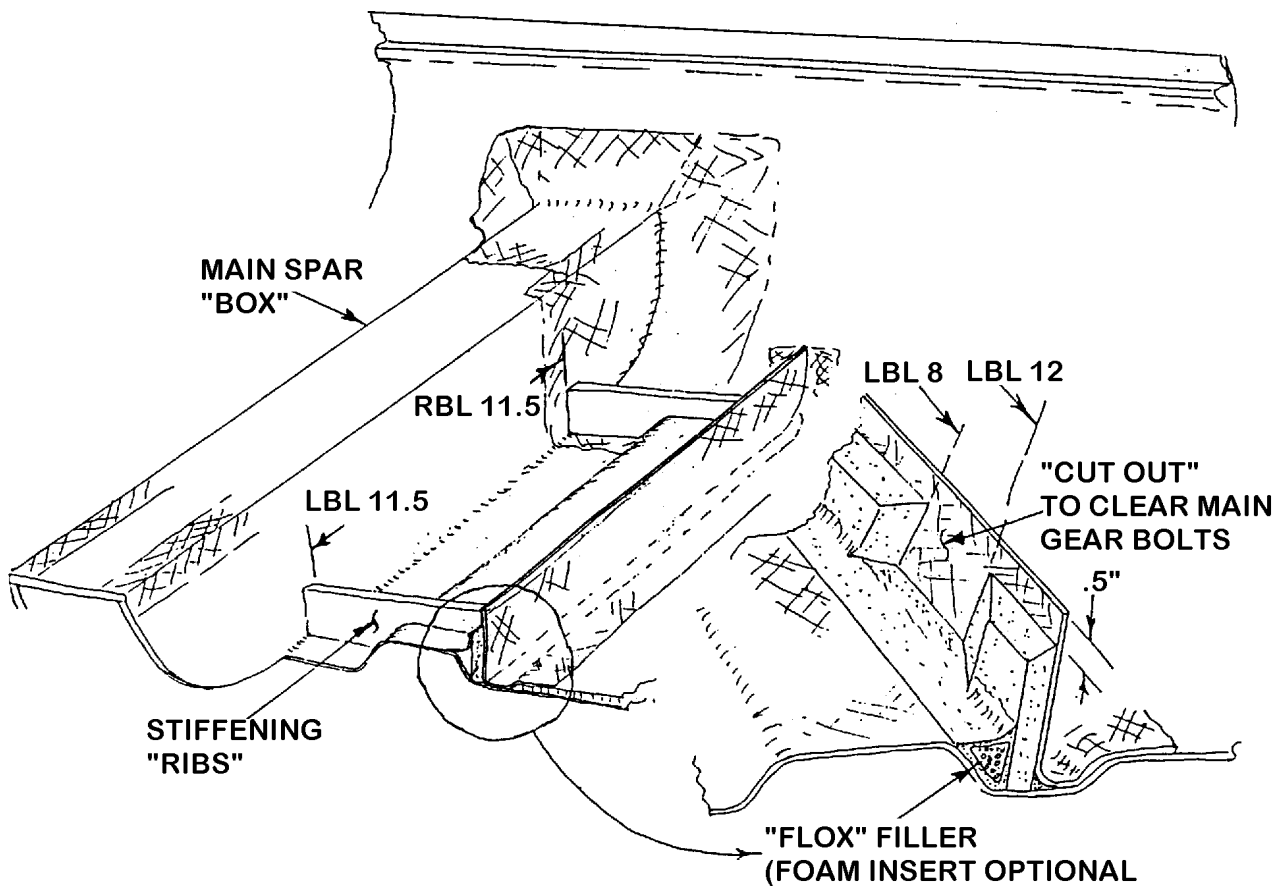


FIGURE - Main gear "box" reinforcing with added flange and ribs

Provide a small fillet of dry micro in the backside joint corner of the foam, and bond this back side to the floor and fuselage sides with an 8 layer BID. Green trim to the top surface of the foam, and when the BID is sufficiently cured, trim away a portion of the foam as shown in the sketch. Trim the foam down 1/2 inch from the top for the full width, tapering the surface back at about a 45-degree angle. Cut away the foam totally (down to the dry MICRO) 4 inches wide on each side from BUTT line 8 to BUTT line 12. Also taper the edges of these cuts at about 45 degrees. Fill the remaining voids between the front of the foam and the backside of the gearbox with dry MICRO, making a smooth radius for the subsequent BID that will be applied in this area. Clean and roughen the exposed inner surface of backside BID, smooth and radius any sharp corners of the foam, to prepare for bonding the front side. Bond in the front side of this resulting flange with 8 ply BID, provide a minimum of 1-inch overlap onto the gearbox, working the glass down into all corners and recesses. Green trim the surplus bid along the top edge of the flange and smooth this edge after the cure is complete.

Cut out the two main gear "box" stiffening ribs from the factory marked plywood sheet (same as used for the firewall components) leaving a little extra length for trimming. Trim these ribs to fit between the spar box and the reinforcing flange along the backside of the gearbox. Tack each of them in place with the inner face on BUTT LINE 11.5 inches each side of centerline, with 5-minute epoxy. Make a fillet on each side with dry MICRO, and laminate in place with 8 layers of pre-lam BID on the outside, and 20 layers on the inside (where the holes will be subsequently drilled for mounting the main gear). Green trim the surplus material projecting up from the plywood ribs and smooth these edges when cure is complete.

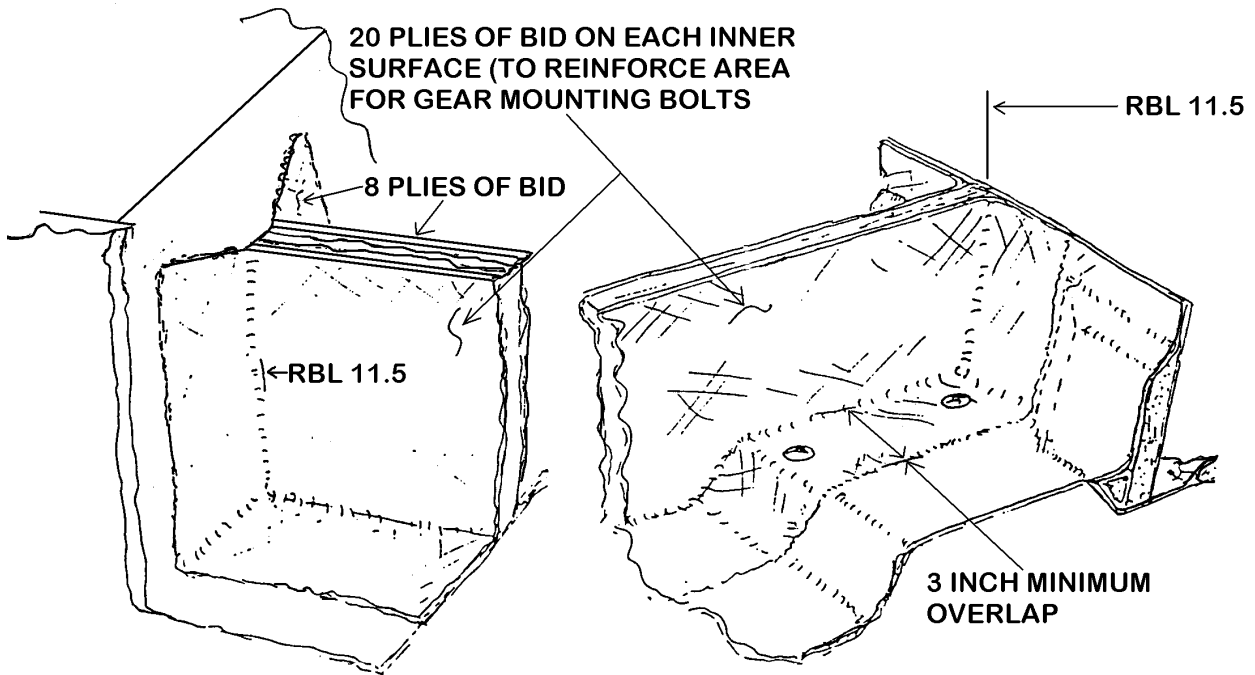


FIGURE - Detail of BID laminating stiffening ribs in place

This is a somewhat complex lay-up that requires a lot of finger poking into the corners. The lay-up should overlap both the spar box and the gear stiffener by at least 2 inches. Be sure that all air bubbles are worked out of the laminations.

NOTE – Fuselage assembly continued in next section