

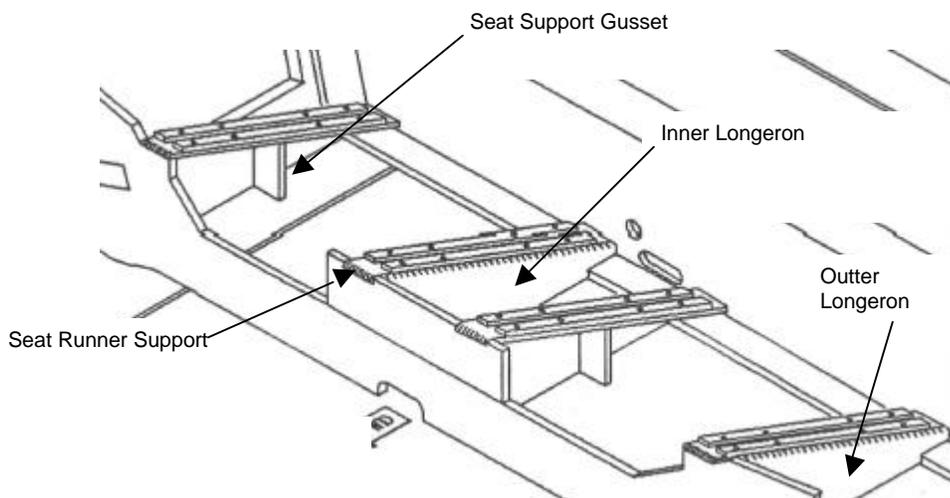
PROCEDURE 4.030

INSTALLING FORWARD LONGERONS

In this procedure...

The forward Longerons, which support the control stick assembly, will be installed. The longerons also become part of the seat support structure. The parts are located between the carry-through assembly and the forward shear tie assembly. The outer seat support ribs will also be installed during this procedure.

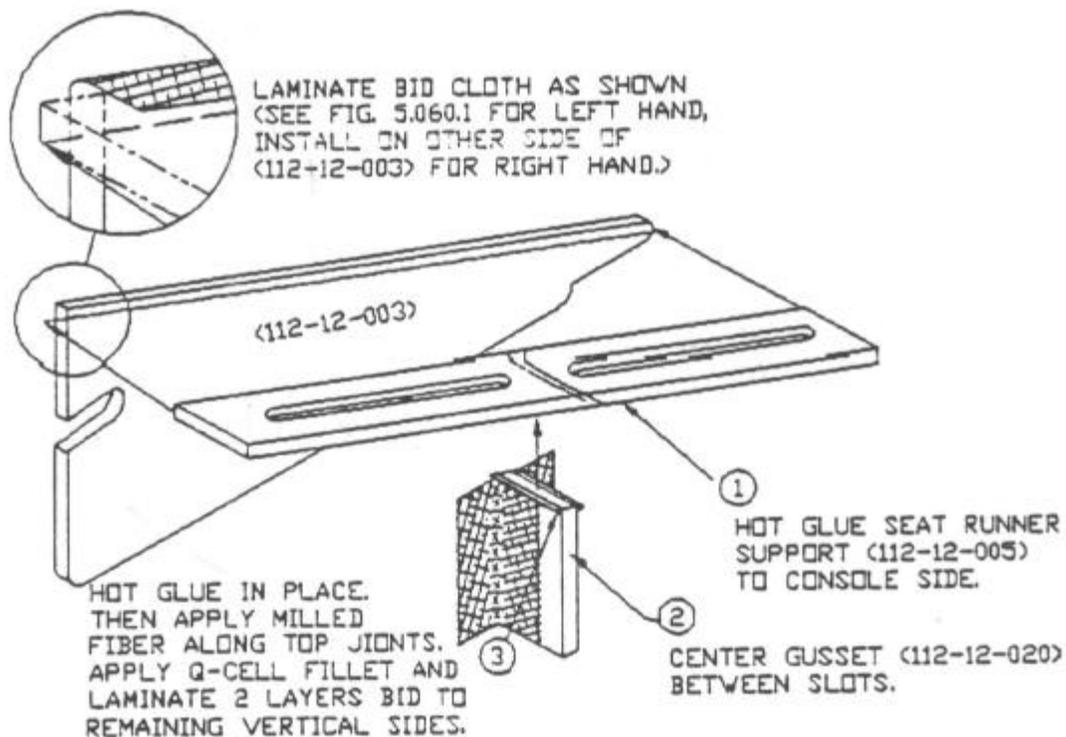
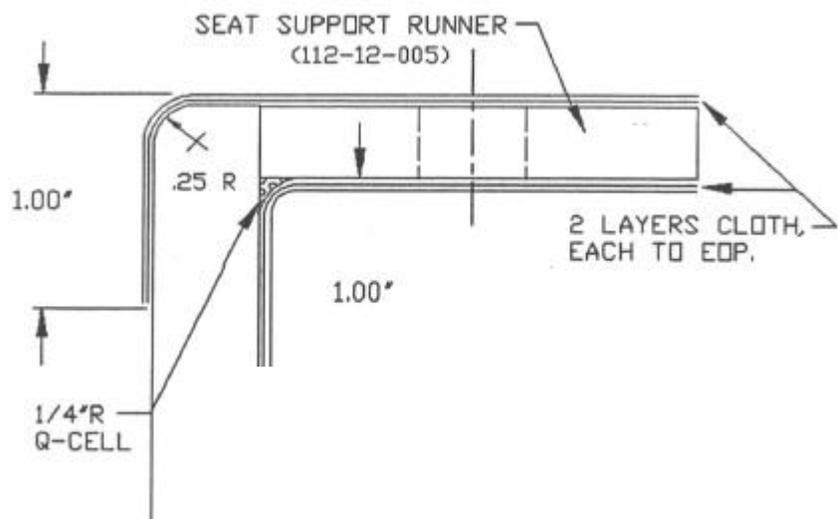
<u>Part No.</u>	<u>Qty.</u>	<u>Description</u>
112-12-003	2	Longerons, Inner
112-12-026	2	Longerons, Outer
112-12-005	4	Support, seat runner
112-12-020	4	Gusset, seat support - mid
112-14-001	8	Runner, seat
BSC-43	32	Rivet, pull



Step 1. Assemble Forward Longerons.

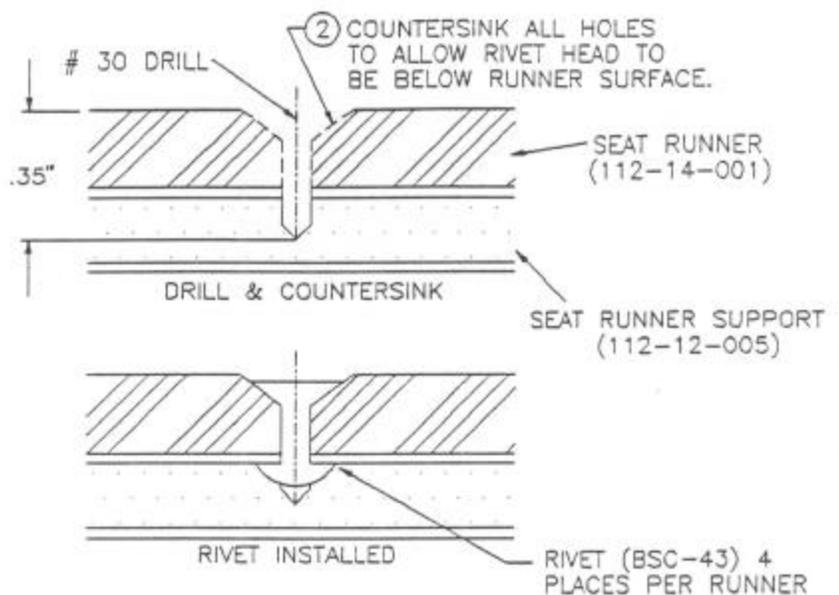
On your bench fit and hot glue the slotted seat support runners (112-12-005) to the outside faces of each forward longerons (112-12-003 and 112-12-026). They must be perpendicular. Radius the upper edges of the console sides. Apply cloth to the inside and outside joints. The bid cloth must be flush with the outboard EOP of the support runner and lap 1.0" onto the console side. Trim after green cured. Make one right-hand and one left hand assembly.

Fit the seat support gussets (112-12-020) midway between the inner slot ends. Apply 1/4" milled fiber fillet along the upper horizontal joints. Apply a Q-cell fillet along the vertical joints. Laminate two layers of 2" wide bid cloth on each side along the vertical joints.



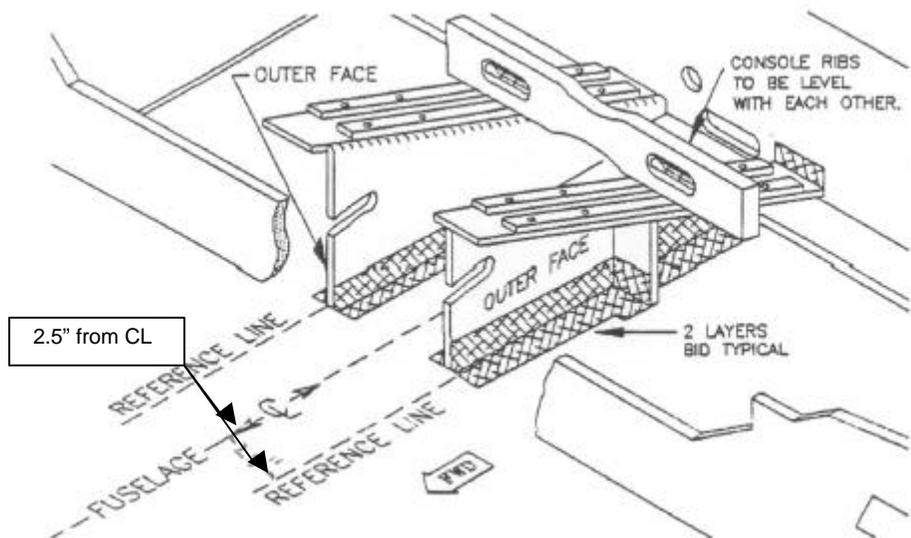
Step 2. Install Nylon Runners.

Fit the nylon seat runners (112-14-001) on the Seat Runner Supports (112-14-001) with the keyhole to the front. The seat runners are installed with 1.0" of the runner support open at each end. Drill four #30 holes through each of the nylon runners and the first layer of glass of the support rails (wrap tape around your #30 drill bit 0.35" from the tip as a guide) for rivets (BSC-43). Countersink for the rivet heads so they are just below the runner's top surface before fastening the nylon parts in place.



Step 3. Install Longerons.

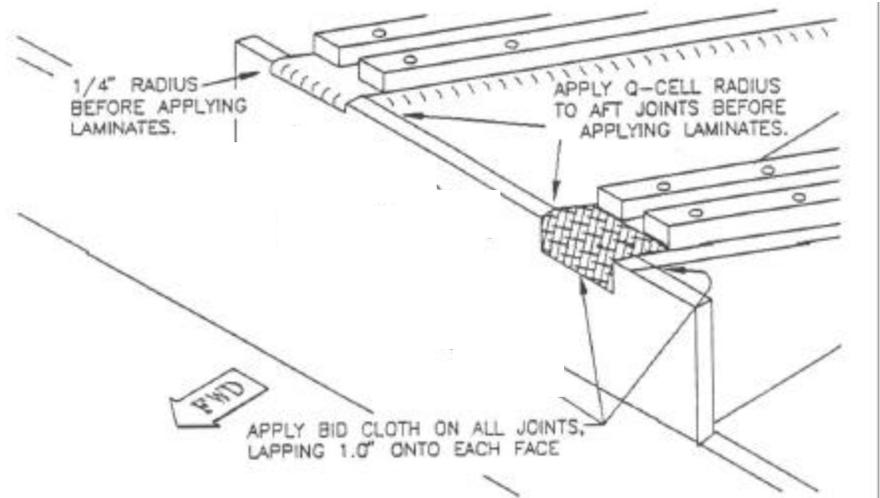
Carefully fit the left and right hand inboard longerons between the carry-thru and forward shear tie assembly, flush on the fuselage floor with their respective outside faces on the reference line drawn 2.5" outboard of the fuselage centerline. Use your carpenter's level to carefully check that the tops



are aligned level with each other. The slots must be parallel with each other and 90° to the carrythrough. Prep the area. File and fit at all mating surfaces and hot glue in place. Apply Q-cell fillet and two layers of bid cloth to the joints.

Step 4. Install Forward Seat Runner Gusset.

Apply a Q-cell fillet along the inside joints where the shear tie meets the front edges of the longerons. Laminate two layers of bid cloth along these joints. Radius the front edges of the seat runners. Apply two layers of bid cloth over these joints down the front face of the gusset for at least an inch.

**Step 5. Install Outboard Longeron Assemblies.**

Repeat Step 1 and 2 to assemble the outboard seat runners.

NOTE:

The inboard longerons have the slotted seat runner supports facing outboard, and the outboard longerons have them facing inboard. Make one left hand and one right hand runner support assembly.

Carefully fit the outboard longerons so that the nylon seat runners are spaced xxxx" apart, level and parallel with the inner seat runners. (**Note: Alignment of the seat runners is critical to the smooth operation of the seat slides.**)

Prep the areas where the outboard seat runners attach. Hot glue the in place. Apply Q-cell fillet along the joints and laminate two plies of 2" wide bid cloth along the joints where the parts meet the floor, carry-thru and forward shear tie.

Seal all of the exposed foam along the upper edges of the forward shear tie and seat gusset with one ply of bid cloth.

