

7F7 Firewall

Building the CH701 Firewall.



7F7-1SP Upper Channel

Locate and mark the centerline on the Upper Channel.



7F7-1SP Upper Channel

The center of the Nose Strut is 60mm from the back of the Upper Channel. Locate and drill a 2" hole in the Channel.



7F7-1SP Upper Channel

Each end of the Upper Channel will need to be trimmed. Mark and cut (DWG 7-F-7).



7F7-1SP Upper Channel

Upper Channel ready to install on firewall.



7F1-1 Firewall

Layout the center line and the Upper Channel (7F7-1SP) location. The Upper Channel is 395mm to top edge of the Channel from the bottom of the Firewall.



7F1-1 Firewall

Layout the other two vertical line for the Firewall Stiffeners. They are located 420mm from each other or 210mm from the centerline. This is the location where the engine mount will be bolted on the firewall bottom.



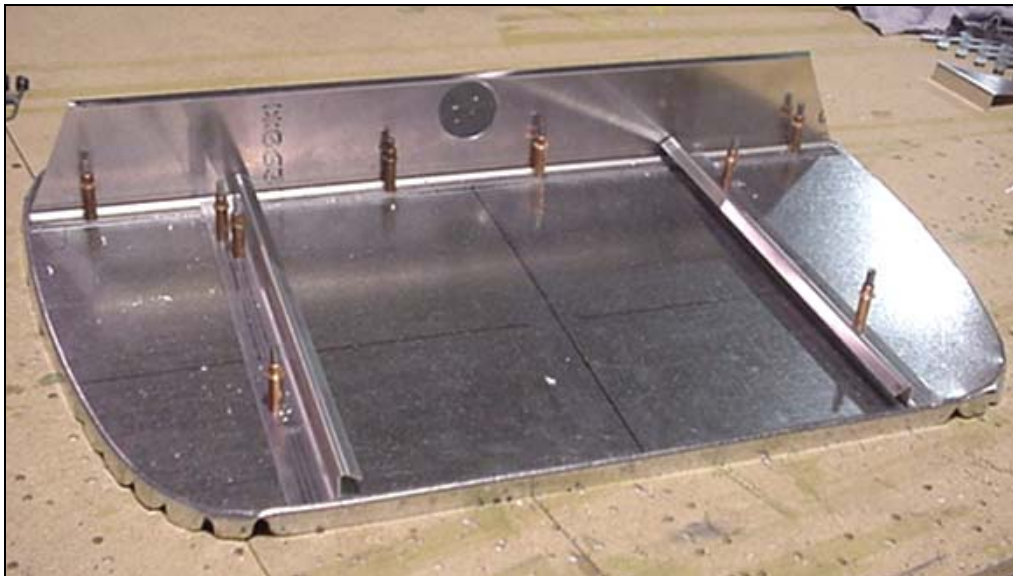
7F7-1SP Upper Channel
7F1-1 Firewall

Position the Upper Channel on the Firewall. The Channel is 395mm from bottom of the Firewall to the top edge of the Channel.



7F7-1SP Upper Channel
7F1-1 Firewall

Layout the rivet line on the Upper Channel. The rivet pitch is 35mm, but when laying the rivet pattern out, don't forget the no-rivet zone for engine mount and the location of the Vertical Lower Channel and Firewall Stiffeners. Drill and cleco just a few holes until all the parts are in position on the Firewall.



7F7-5 Firewall Stiffeners

Layout the rivet pattern for the Firewall Stiffeners. Position the Stiffener and drill and cleco. Ref drawing 7-F-7, the flange center line is on the 210 line.

Two rivet lines (divide the flange width by 3), the O/B rivet line is 10mm from the edge, the I/B rivet line is 9mm from the bend (vertical flange)

A5 PITCH 60 each rivet line, stagger the two rivet lines.





7F7-8C Channel Doubler

Layout the center line and drill a center hole. Then layout four holes on each side of the center hole. The center hole will be opened to 5/8" hole later.



7F7-8C Channel Doubler
7F7-2C Vertical Lower
Channel

Measure down 235mm from the top of the Vertical Lower Channel 7F7-2C. And 25mm from the bend, for the location of the 5/8" hole. Pilot drill this and cleco the Channel Doubler center hole at this location. Drill the remainder of the 8 holes.



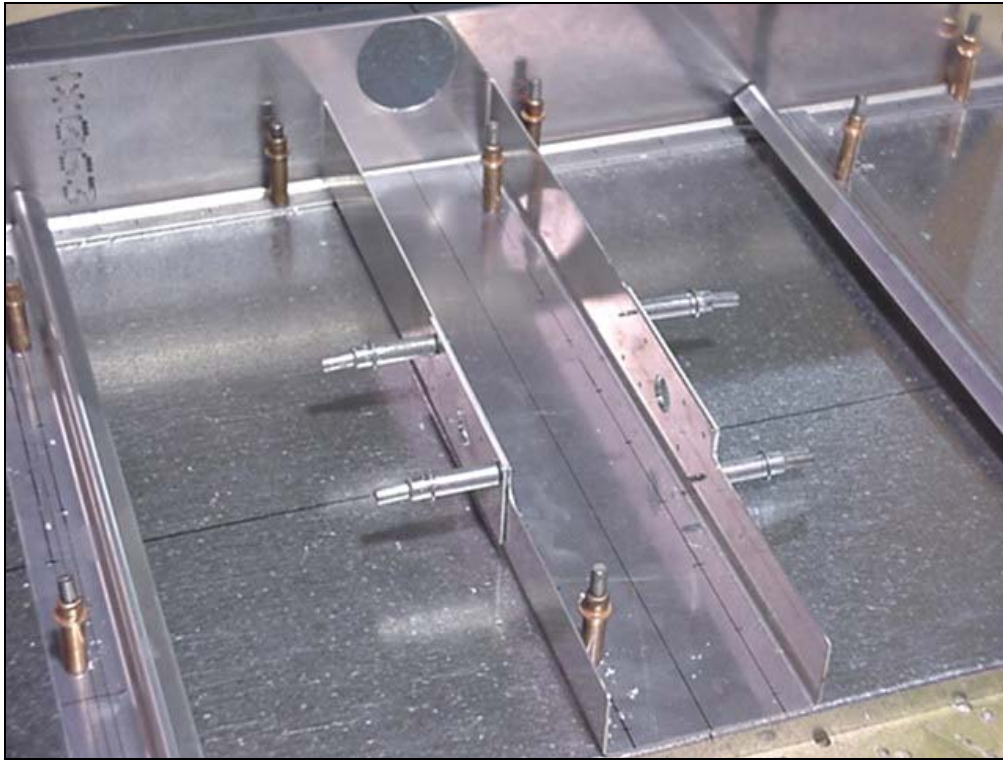
7F7-2C Vertical Lower
Channel
7F7-8C Channel Doubler

Open up the center hole to 5/8" hole for the Bungee Pin.



7F7-2C Vertical Lower
Channel
7F7-8C Channel Doubler

On the lower section of the Vertical Lower Channel the channel will be cut down to a 33mm flange, this will allow for more Rudder travel.



7F7-2C Vertical Lower
Channel
7F1-1 Firewall

Mark a centerline on the inside of 7F7-2C and two rivet lines 60mm apart. Layout the rivet pattern pitch 40 where the bungee pin is located. The rivets need to be 15mm from the center on each side. This will prevent the bungee from rubbing on the rivet heads. Drill and cleco.



7F7-9C Gear Gusset

Layout the rivet pattern on the Gear Gusset.



7F7-9C Gear Gusset
7F7-1SP Upper Channel

The Gear Gusset is positioned on the Vertical Lower Channel and Upper Channel. Using a square will keep the Upper Channel square with the Firewall. Once the Gusset is in position, clamp the Gusset in place.



7F7-9C Gear Gusset

Drill and cleco the Gusset in place.



7F7-7SP Top Channel Stiffeners

Layout two rivet-lines on the Top Channel Stiffener.



7F7-7SP Top Channel Stiffener

The Stiffener will need to be cut at the same angle as the Upper Channel (7F7-1SP). Drill and cleco.



7F7-3 Vertical Top
Channel
7F1-1 Firewall

Layout three rivet-lines. Plan for a no rivet zone area for the engine mount.
Drill and cleco.



'Z' Angle
7F1-1 Firewall

Cut a 'Z' Angle 670mm long and position the 'Z' 160mm up from the bottom
of the firewall. Layout the rivet line pitch 40.