

SECTION 1B

THROTTLE BELLCRANK CABLE STOP

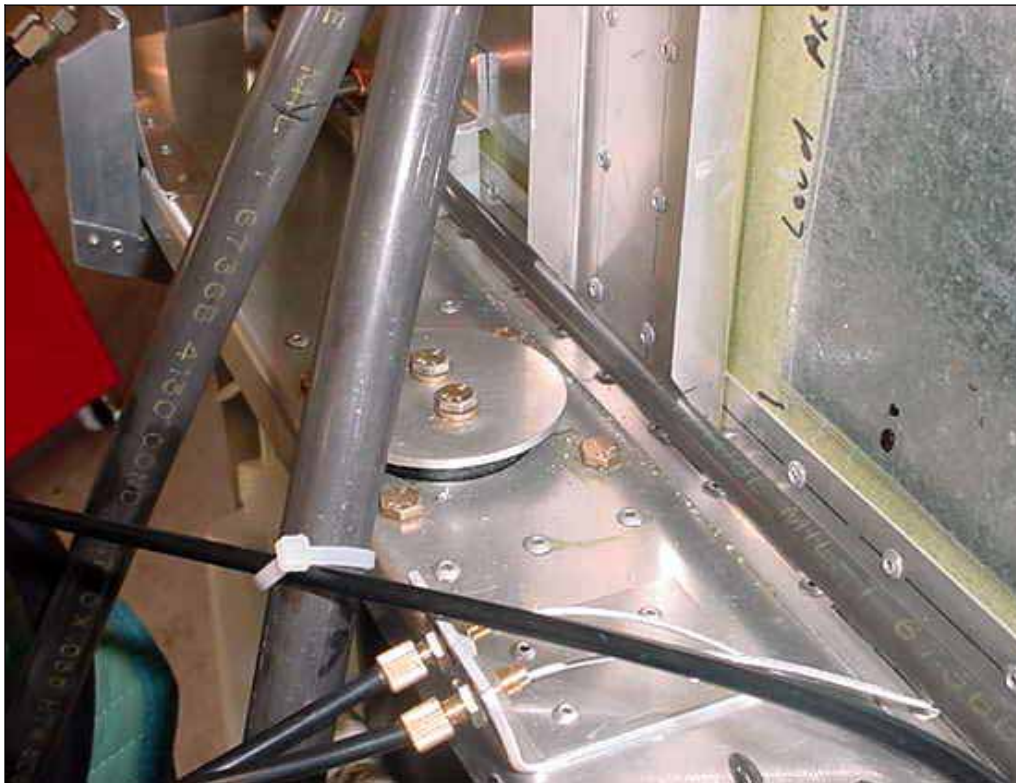


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Make sure that your engine is registered with Rotax or an authorized distributor so that the factory warranty is in effect. In the United States, the Rotax distributor is Kodiak Research: <http://www.kodiakbs.com> Contact a Rotax distribution or service partner if you do not understand the instructions or if you have any additional questions. Maintain copies the manuals with the aircraft in case of sale. Obtain current versions of the manuals from the official Rotax website, as well as current service and maintenance information: www.rotax-aircraft-engines.com

If a discrepancy arises between the information provided by Rotax and the following pages, the Rotax manuals and/or service information and instructions take precedence. Zenith Aircraft Company does not manufacture or directly support engines.

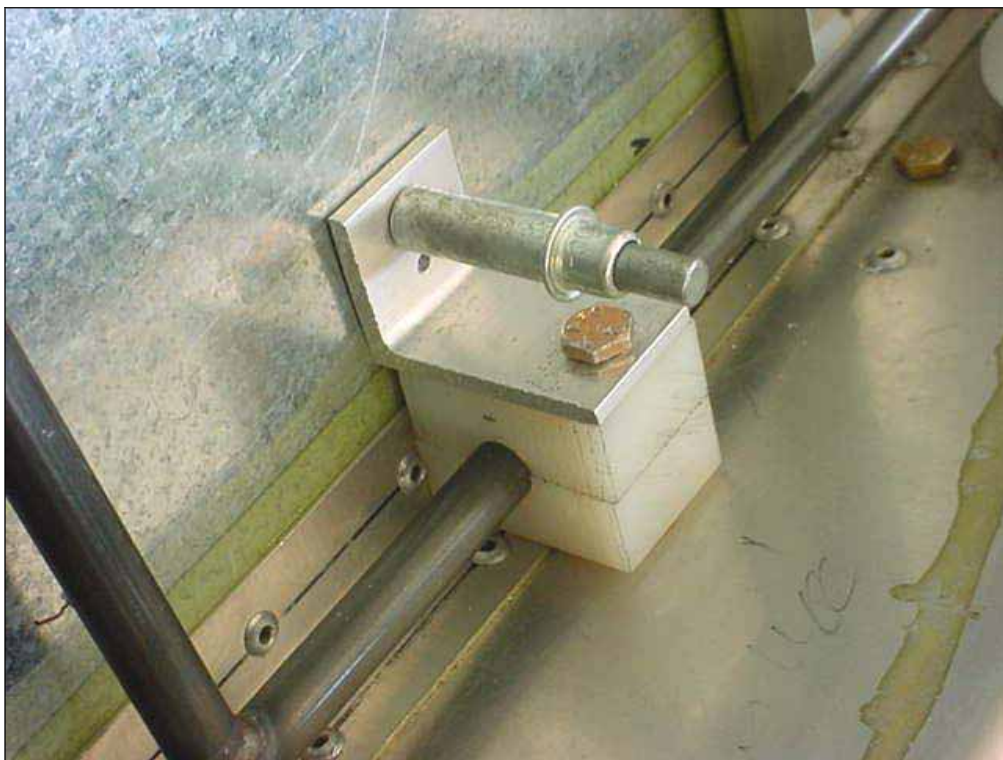
Alternative engines will affect performance, specifications and flight characteristics of the aircraft. Also, the weight and balance of the aircraft may be adversely affected by alternative engines, and the original fuel system may not be adequate or suitable for some engines. Most alternative engines will require a custom engine mount and engine cowl.



Set the Bell Crank at 16mm from the Top Channel Stiffener 7F7-7SP to the center of the Bell Crank 7E5-1 (horizontal tube).

CHECK: The position of the Bell Crank 7E5-1 is behind the Stop Plate 7L1-5J.

Trim the bottom corner of the side flange on the vertical Top Channel 7F7-3 to make room for the Bell Crank 7E5-1.



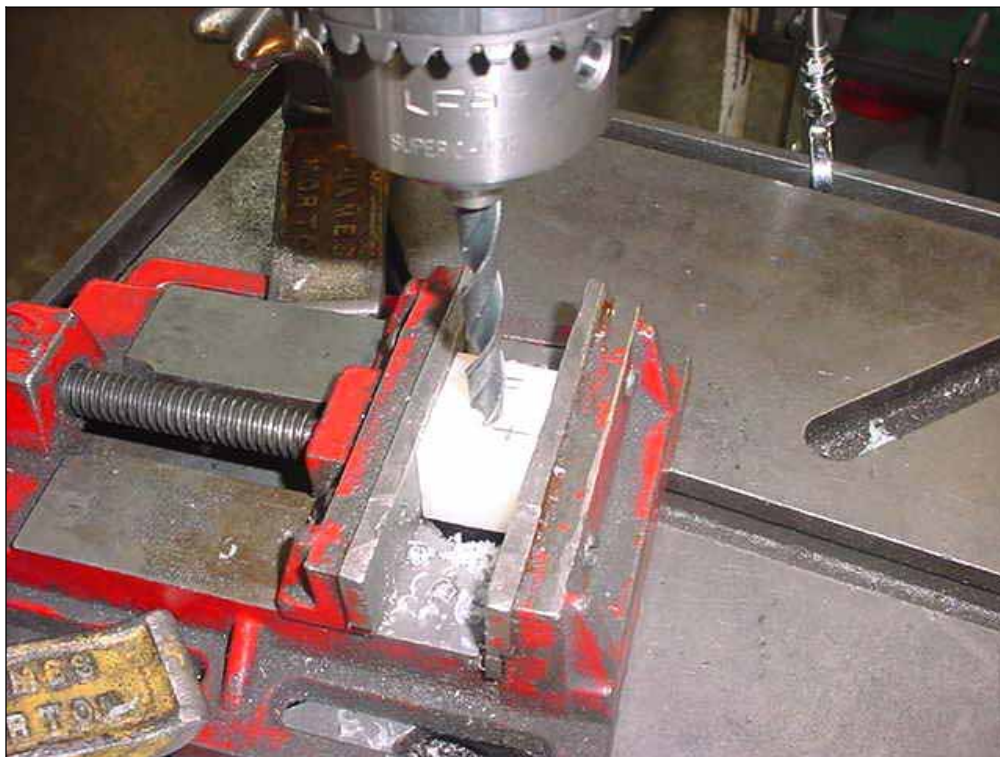
FRICION BLOCK
7E5-6
Qty: 2

Nylon 66 Plastic
35mm x 25mm x 1/2"

Note: 3mm between firewall and aft edge plastic block 7E5-6.

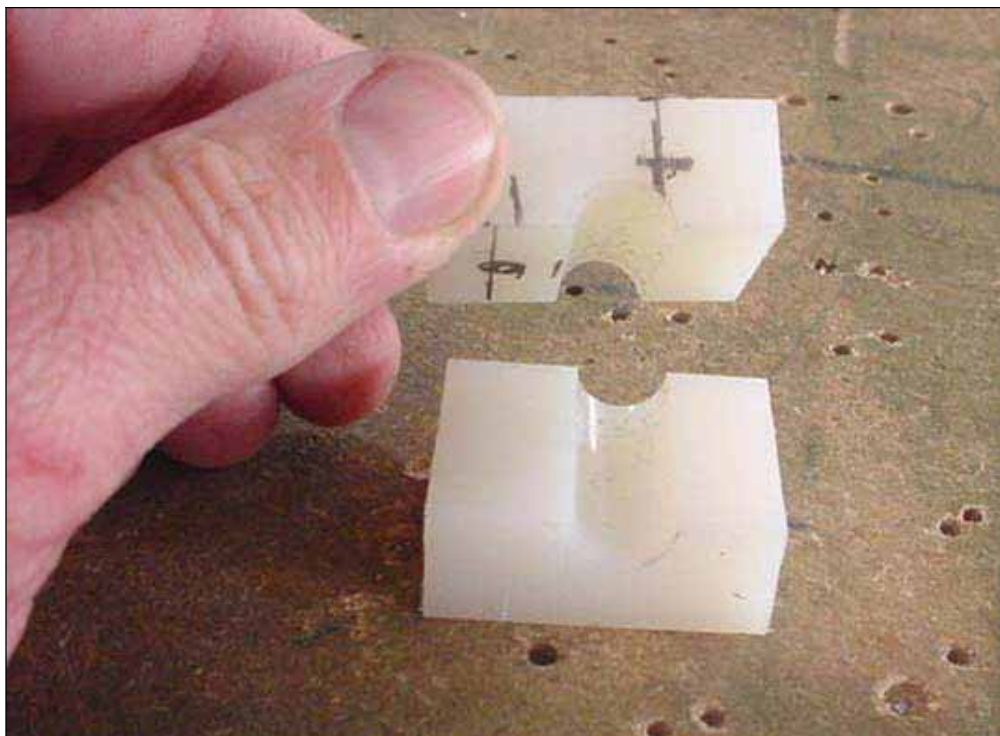
TIP: The block is 35mm long, line up the front edge of the plastic block 7E5-6 even with the front edge of the extrusion Clamp 7E5-5.

Layout the location of the 3/8" hole in the Friction Block 7E5-6 (referenced from the aft edge) 16mm to the center of the hole.



3/8" drill bit

Clamp the two blocks in a drill vise, drill the 3/8" hole through both pieces.



3/8" hole through both blocks.

Note: The hole is not in the middle of the block to make room for the AN3 bolt.



Location of the 3/16" hole
Edge distance = 8mm.

Clamp the two blocks on the Bell Crank to drill the 3/16" bolt for the AN3 bolt.



**FRICTION CLAMP
7E5-5**

File a radius along the bottom aft corner of the bottom Block 7E5-6 to fit inside the radius of the Top Channel Stiffener 7F7-7SP. Position the Block on the Stiffener, and hold the Friction Clamp 7E5-5 on the firewall. Mark the aft edge of the Block on the Clamp 7E5-5 and remove assembly to back drill the 3/16" hole through the Clamp.



**THROTTLE
BELLCRANK
7E5-1**

Welded assembly.
ORIENTATION: Vertical
rods are installed on the
right side.

The Throttle Friction Clamp is installed 120mm to the right of the aircraft centerline. If necessary adjust the position of the friction clamp in between the existing rivets in the Stiffener – do not install the Clamp on top of a rivet. Back drill the 3/16" through the Block 7E5-6 into the Upper Channel 7F7-1SP.



**AN3-15A BOLT
QTY: 1**

(Position self locking nut
and washer underneath
Channel).

**2 RIVETS A5
7E5-5 into firewall.**

NOTE: Add a washer (AN960-10) under the lower block, between block 7E5-6 and Channel 7F7-1SP.



THROTTLE BEARING 7E5-2

1L + 1R required.

ORIENTATION: drill the 3/8" hole in the 1-1/2" flange; then chamfer the top edge.

Drill the 3/8" hole 16mm from the aft edge and 12mm up from the bottom edge.

With a file, radius the bottom edge to make room for the bend radius of the Top Channel Stiffener 7F7-7SP



Detail of left side.

**2 RIVETS A5
7E5-2** into firewall.

LOCATION: Line up the mid-point of the 600mm long Bell Crank 7E5-1 with the aircraft centerline.

IMPORTANT: Do not install the Throttle Bearing 7E5-2 on top of a rivet.



Saw the side flange to the corner relief hole. Chamfer the 1" flange. With a square, mark the bend line across the 1-1/2" flange 25mm from the top edge.



**THROTTLE CABLE
STOP 7E5-3
(Qty: 1)**

Length = 120mm

Drill a 1/4" corner relief hole tangent with the 1-1/2" flange approximately 25mm from the top edge.

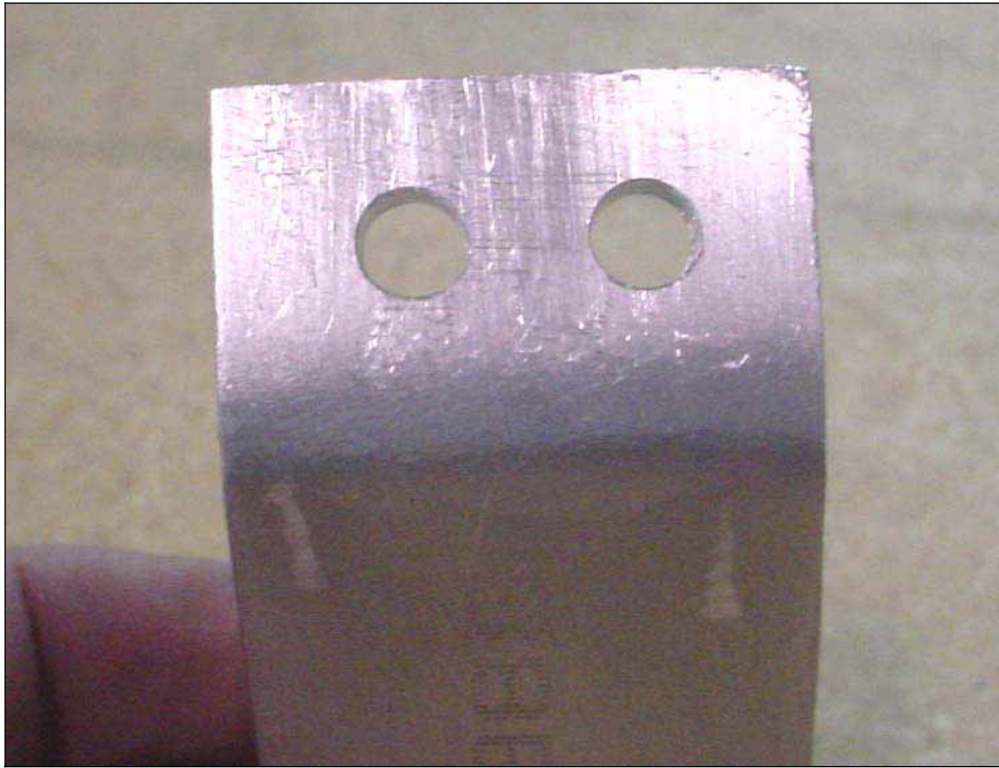


Note: If using a vise (as in photo above), only use aluminum grips with the appropriate radius. Bend approximately 45 degrees.

IMPORTANT: Bend the extrusion over a piece of wood with a 1/4" radius if a vice with aluminum grips (and radius) is not available.

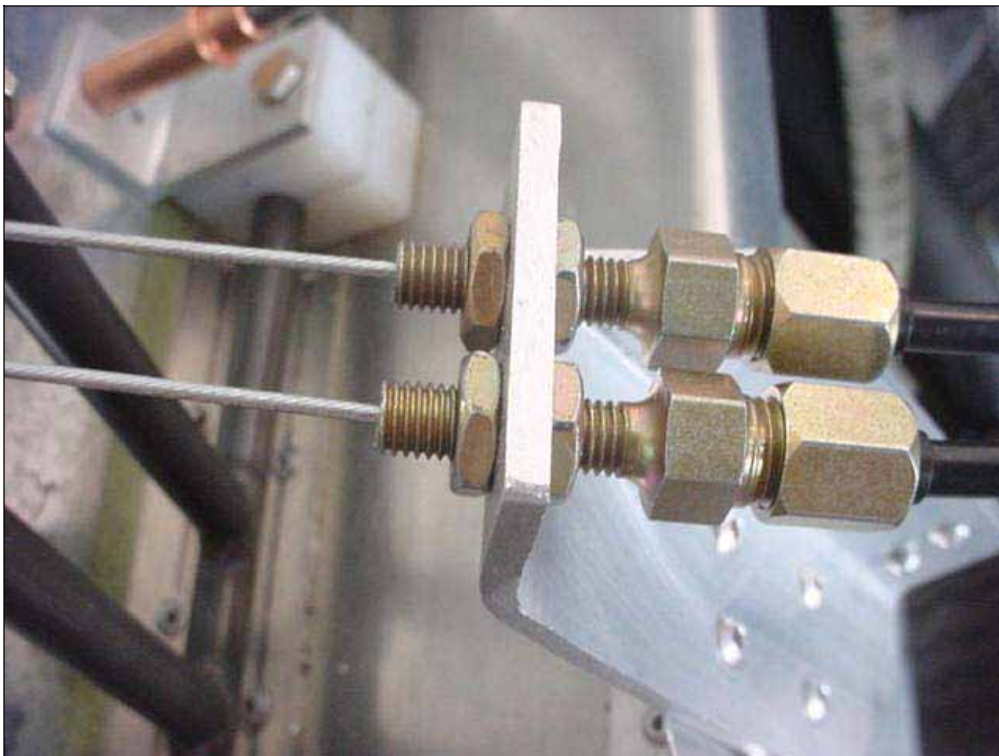
CHECK: That there are no visible cracks along the bend.

ORIENTATION: The bend is at the top with the 1" flange installed on the I/B side



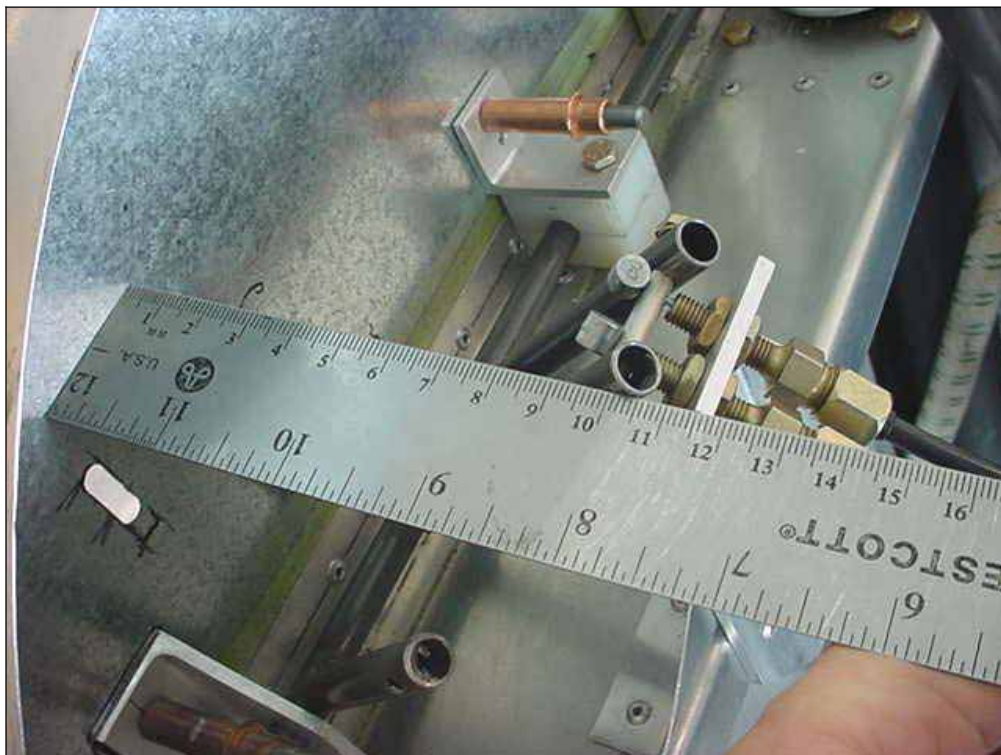
SUGGESTION: Wait to chamfer the bottom edges until after the diagonal L angle is drilled and Clecoed.

Drill two 1/4" holes 13mm part (center to center) on the bent 25mm end of the Throttle Cable Stop 7E5-3.



**25-0700
CABLE STOP
ADJUSTER ASSEMBLY**
Qty: 4.

Install the Cable Stop Adjuster assemblies 25-0700 to the Throttle Cable stop 7E5-3 with jam nuts on each side of 7E5-3.



Set the Bell Crank 7E5-1 in the full throttle position (fully forward).



105mm = horizontal distance from the firewall to the top of the Bell Crank.



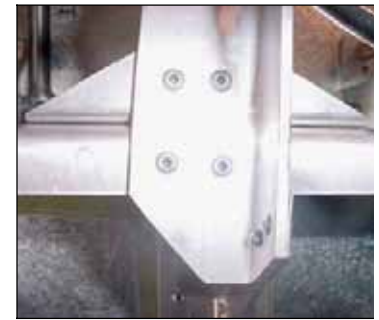
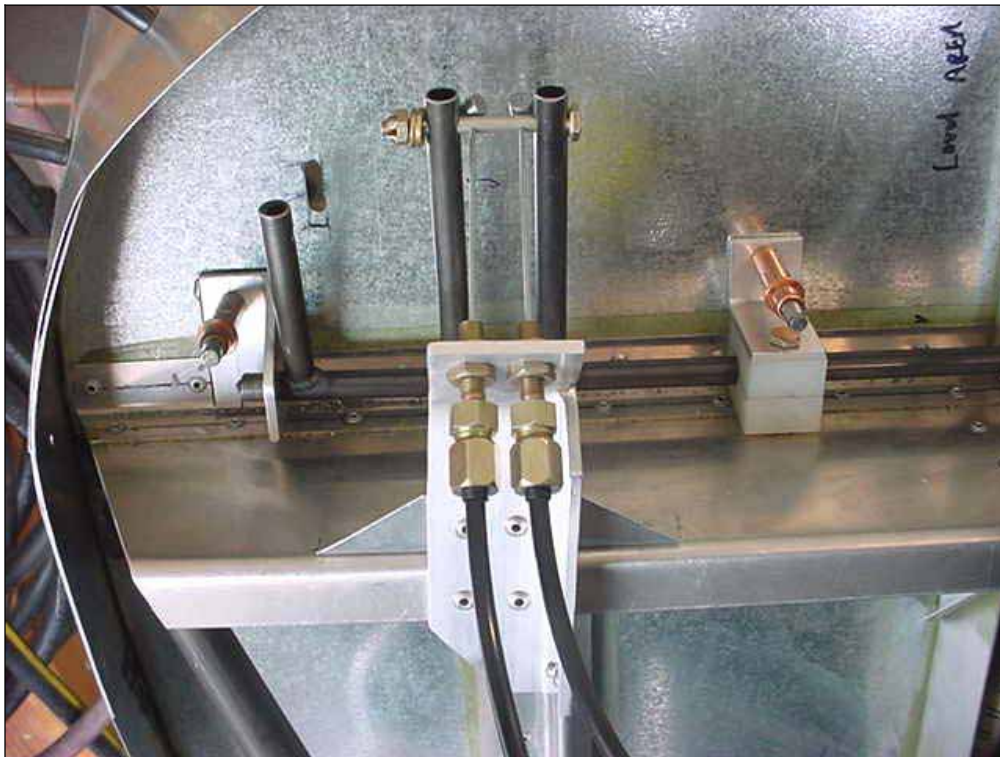
VERTICAL HEIGHT:

The ends of the Cable Stop Adjuster Assemblies should be in line with the center of the AN3-20 bolt on the Bell Crank.

CHECK: That the sides of the Throttle Stop are vertical.

2 RIVETS A5
7E5-1 into 7E7-1SP.

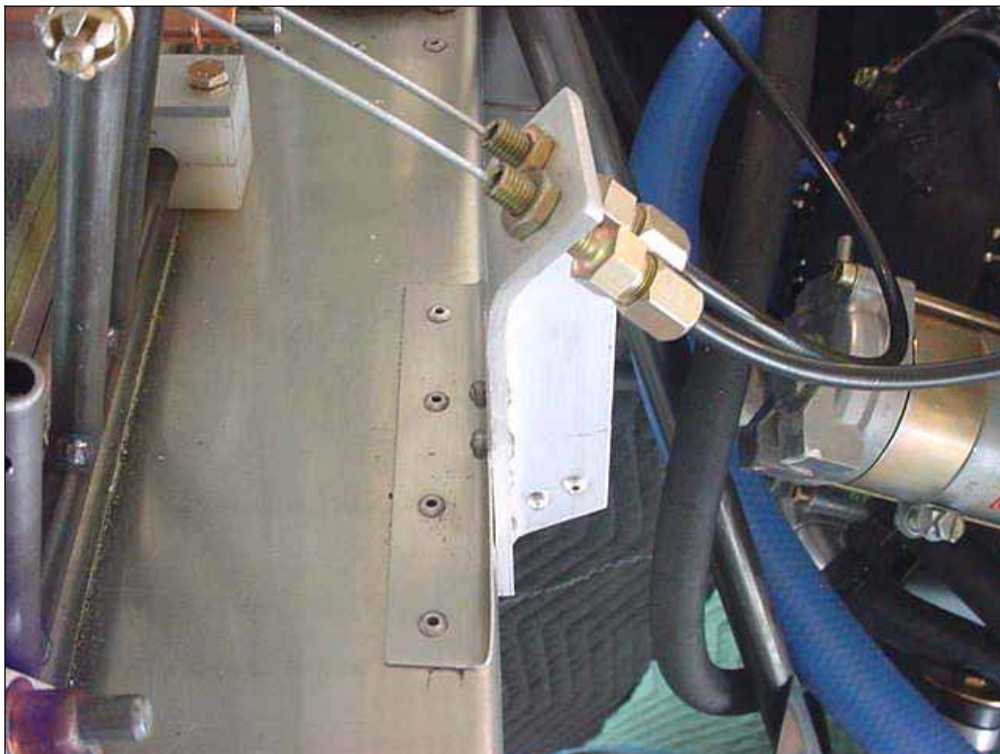
Clamp the Throttle Cable Stop 7E5-1 to the front flange of the Upper Channel 7E7-1SP; Drill & Cleco.



2 RIVETS A5
7E5-3 into L angle.

L angle = 100mm.

Installed in the corner of the Upper Channel 7F7-1SP and the Throttle Cable Stop 7E5-3. Chamfer (trim) the left and right corners.



Top view (when standing in front of aircraft).

4 RIVETS A4 from
L angle into 7F7-1SP.

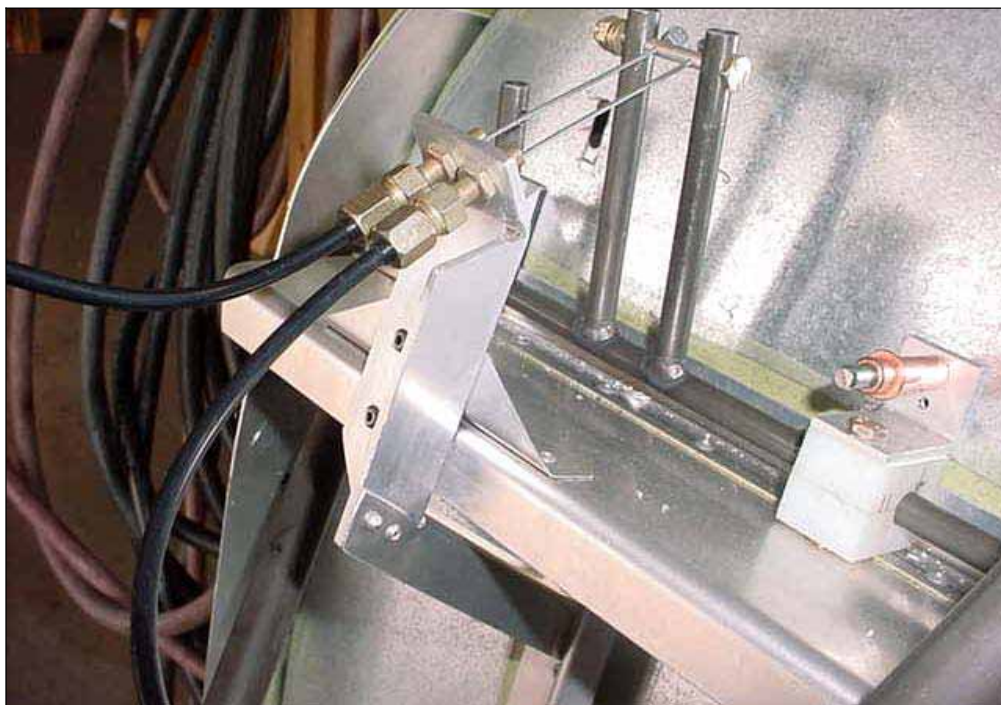
DIAGONAL L ANGLE



180mm measured along the firewall from the Upper channel to the bottom of the diagonal L angle.



2 RIVETS A4
L angle into 7F7-5.



2 RIVETS A4
7E5-3 into L angle.

Drill a #20 corner relief hole in the diagonal L angle and cut the top flange to make room 7F5-3. Cut the bottom side flange 7E5-3 flush with the bottom edge of the diagonal L angle. Chamfer the front of 7E5-3 even with the bottom of the upper channel.



AN3-20
Bolt on Bell Crank 7E5-1.

Drill the two 1/16" hole in the AN3 bolt for the throttle cables (parallel holes).



CHECK: The holes in the AN3 bolts are in line with the center of the cable stop adjuster assemblies 25-0700.