

# Rotax 912S

## SECTION 1

### ENGINE MOUNT



Photo to show the position of the  
Steel Brackets E1-1X on the  
Dynafocal Brackets E2-1X on the  
Engine Mount 7E1-1

#### **REFERENCE: 7-E-2**

Level the reference line on the fuselage, see 7-F-2. Also level the fuselage span-wise across the top of the cabin frame between the wing attachments.

CHECK: The engine mount is level (longitudinal and span wise).



**BOLTING ENGINE  
MOUNT TO FIREWALL**

Detail of left side

File or with a hand grinder remove material on the I/B side of the Lower Bracket welded on the engine mount to make room for the side flange of the Longeron 7F10-3. Do not cut the Longeron!



Underside attachment

**2 BOLTS AN3-6A**  
Underside firewall  
Bolted through Bottom  
Front Longerons 7F10-3.

Photo of right side



Bottom right engine mount attachment points to the firewall  
 Check: That the Lower Bracket is not sitting on top of any rivets.  
 2 BOLTS **AN3-5A** Bolted through Firewall Stiffeners 7F7-5



Detail of lower left attachment



Middle firewall attachment: Engine mount plate overlaps on top of the Upper Channel 7F7-1SP. Add a .063" shim underneath the engine mount plate below the Channel (not shown).



Detail of middle right attachment

2 BOLTS **AN3-6A**  
 into 7F14-5R





Top Attachment

2 BOLT **AN3-6A**  
into 7F18-1SP

Detail of top firewall attachment



**22001-13**  
**GREEN DOT BARRY**  
**MOUNTS**  
QTY: 6

**E2-1X**  
**DYNAFOCAL ENGINE MOUNT BRACKETS QTY=2**

Reference: Drawing 7-E-2 Radius the top and bottom edge of the 3/4" hole for  
in E2-1X for the Green Dot Barry Mounts 22001-13



CHECK: The Dynafocal Brackets E2-1X are parallel with the engine mount (span-wise)



Detail of the Barry mount between the engine mount and the Dynafocal bracket E2-1X  
Qty = 4



Cut and radius the ends of the Dynafocal Brackets E2-1X



Detail of the Barry mounts at the front of the engine mount: between the "tray" and the front Bracket E2-1X





**AN6-32 BOLTS**  
QTY: 4



**AN6-20 BOLT**  
QTY: 2

Penny washer AN970-6 on the topside of the Rubber mount 22001-13.  
AN6-32 BOLTS Through the bushing and washer welded on 7E1-1R  
AN6-20 BOLT Through the front plate welded on the engine mount.



**E1-1X**  
**STEEL BRACKETS**  
QTY: 2

Reference drawing 7-F-2 middle diagram.



**M10x1.25x20 8mm key  
12.9 BOLTS**

Drill 1/16" hole through the head of each bolt to safety tie the front and rear bolts together.

Remove the engine from the shipping crate, do not use the shipping bolts or support brackets used to secure the engine inside the crate.



**CHECK:** That the engine is level.

Bolt the left and right Steel Brackets (E1-1X) to the engine.





High torque 912S starter

Saw off the tabs at the end of the starter.



File the corners to round off sharp edges.

CHECK: That the back of the starter does not touch the engine mount.



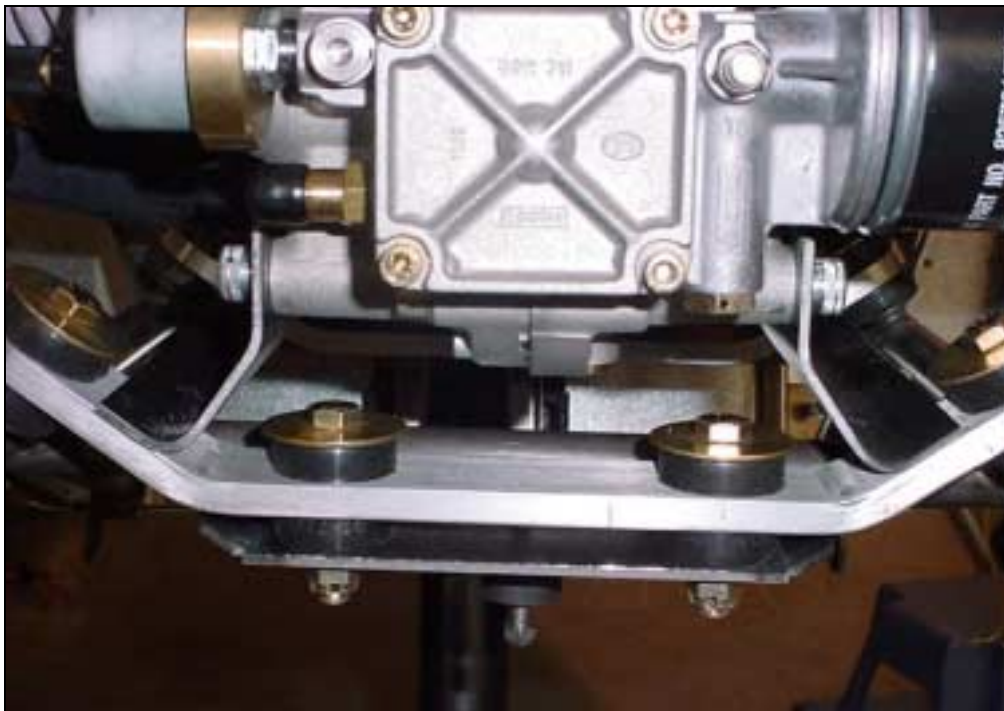


The front left side of the rear box.



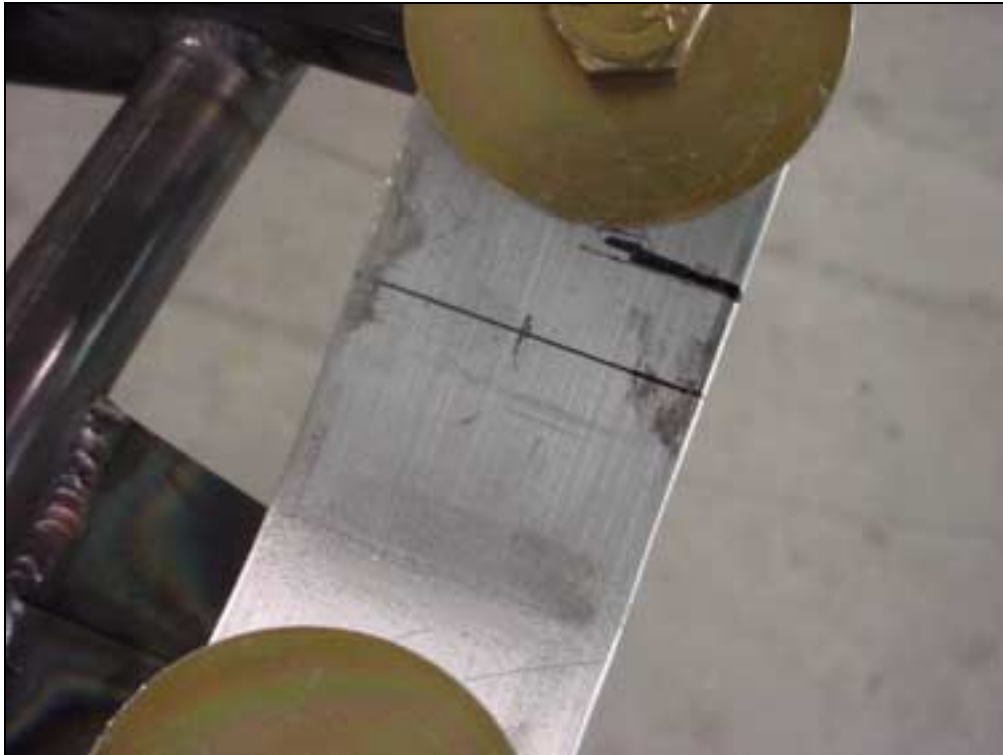
The back of the gear box

Position the engine with the Steel Brackets E1-1X on the Dynafocal Brackets E2-1X  
**CHECK:** that the engine is level before drilling the ¼" hole to bolt E1-1X to E2-1X



Front view

**LAYOUT:** With a marker, mark a reference line on the Dynafocal Bracket 2E-1X to mark the position of the outboard edge of the bottom flange of the Steel Bracket E1-1X (front and rear, left and right).



**E1-1X** is 142mm (width of engine) Locate the holes in the holes for the M10 bolts in **E1-1X** 55mm up from **E2-1X**.

(see Drawings: 7-E-2)

Remove the engine.

From the reference line, measure down 10mm and locate the 1/4" in the middle of the Dynafocal bracket. Drill the 4 pilot holes. Reinstall the engine and back drill into the Steel Bracket E1-1X



**AN4-10A BOLTS**  
QTY: 4

Bolts E1-1X to 2X-1X





Hexagonal bolts M10x1.25x20  
TORQUE 25 Nm or 220 in/lbs

Front and rear bolts are safety tied together.



Detail of Left side



Notice the interference between lower hose and rear engine mount bolt of the Dynafocal Bracket. See next photo for corrective action.



Detail of Right rear bolt



**PROTECTIVE SLEEVE:**  
Use an extra piece of radiator hose (approx. 3 inches long), slice open, slip over engine hose and fasten in place.

**SOLUTION** for interference noted on page 11, bottom picture: Slide a protective hose sleeve between the radiator hose and the engine mount bolt.



Note 1: The protective hose sleeve around radiator hose still missing in this photo.

Note 2: Bottom radiator hose should not kink or rub on steel bracket **E1-1X**.

Detail of left side. If necessary, remove the engine and file a radius on the aft edge of the steel bracket **E1-1X** to make room for the hose.