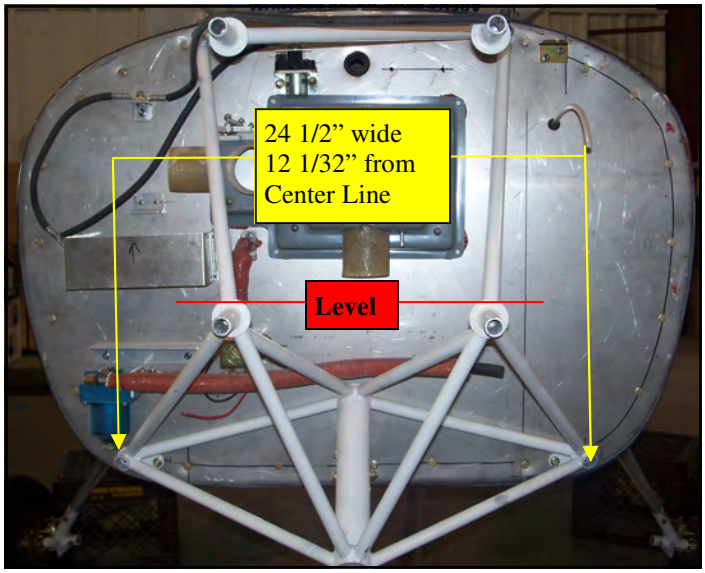
Revision #	Date	Detail of changes
1	4-9-2009	Original
2	4-23-2012	Addition of torque Specs. Also use of Special Process Control form.

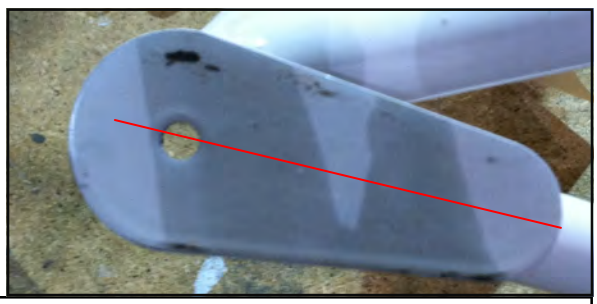
Section Overview: Correct Installation of the Engine mount.
Required Parts: 1 Engine Mount ALM-0010, 4 engine mount back plates ALM-0012.
Required Hardware: 8 AN4-10A bolts, 8 AN4-11A bolts. 16 AN960-416 washers, 8 AN363-428A all metal stop nut.
Required Tools: SAE socket set, SAE wrench set, 1/4" drill bit, 3/16" drill bit, 5/32" drill bit, straight edges, rulers, tape measures, level, digital level, torque wrench.
Required Conditions: None
Required Skills or Training: Basic use of hand tools, and knowledge required to use them, ability to read and carry out directions, read and understand simple CAD drawings.

Installing the Motor mount

Note: *Firewall must be fitted prior to proceeding with this section, but not installed for the final time, temporary installation with clecos is sufficient.*

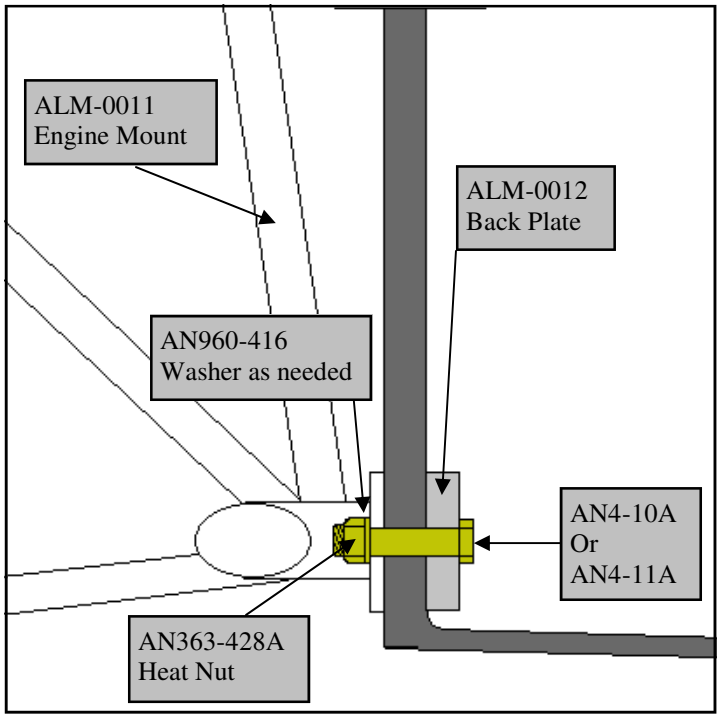


Date Completed	
	1. Level the aircraft, this is done by sliding spar bolts in their holes and setting a level across them.
	2. Measure the distance between the lower motor mount holes (outboard set) should be 24 1/16". Make marks 12 1/32"from center where the lower mounts will sit.
	3. Hold the mount in place, and level it across the bottom pin weldments. Use a punch to mark the left lower outboard hole. Remove mount and drill thru the firewall and fuselage to 3/16".
	4. Place mount on fuselage and install 1 long AN3 bolt to pin the hole placement.
	5. Align the lower right mount hole to the previous mark made, check the lower weldments are still level.
	6. Use a center punch and mark the holes position.
	7. Remove mount and drill the hole to 3/16".
	8. Reinstall mount to fuselage with 2 long AN3 bolts to pin in position.
	9. Mark the upper left outboard hole to the fuselage with a center punch.
	10. Remove mount and drill hole to 3/16".
	11. Reinstall mount to fuselage with 3 long AN3 bolts to pin in position.
	12. Mark the upper right outboard hole to the fuselage with a center punch.
	13. Remove mount and drill hole to 3/16".
	14. Remove firewall.
	15. Drill the four 3/16" holes in the mount to 1/4".
	16. The inboard mount holes are not drilled in the engine mount bases.
	17. Measure and draw a center line on the mount base as shown in the picture at right.

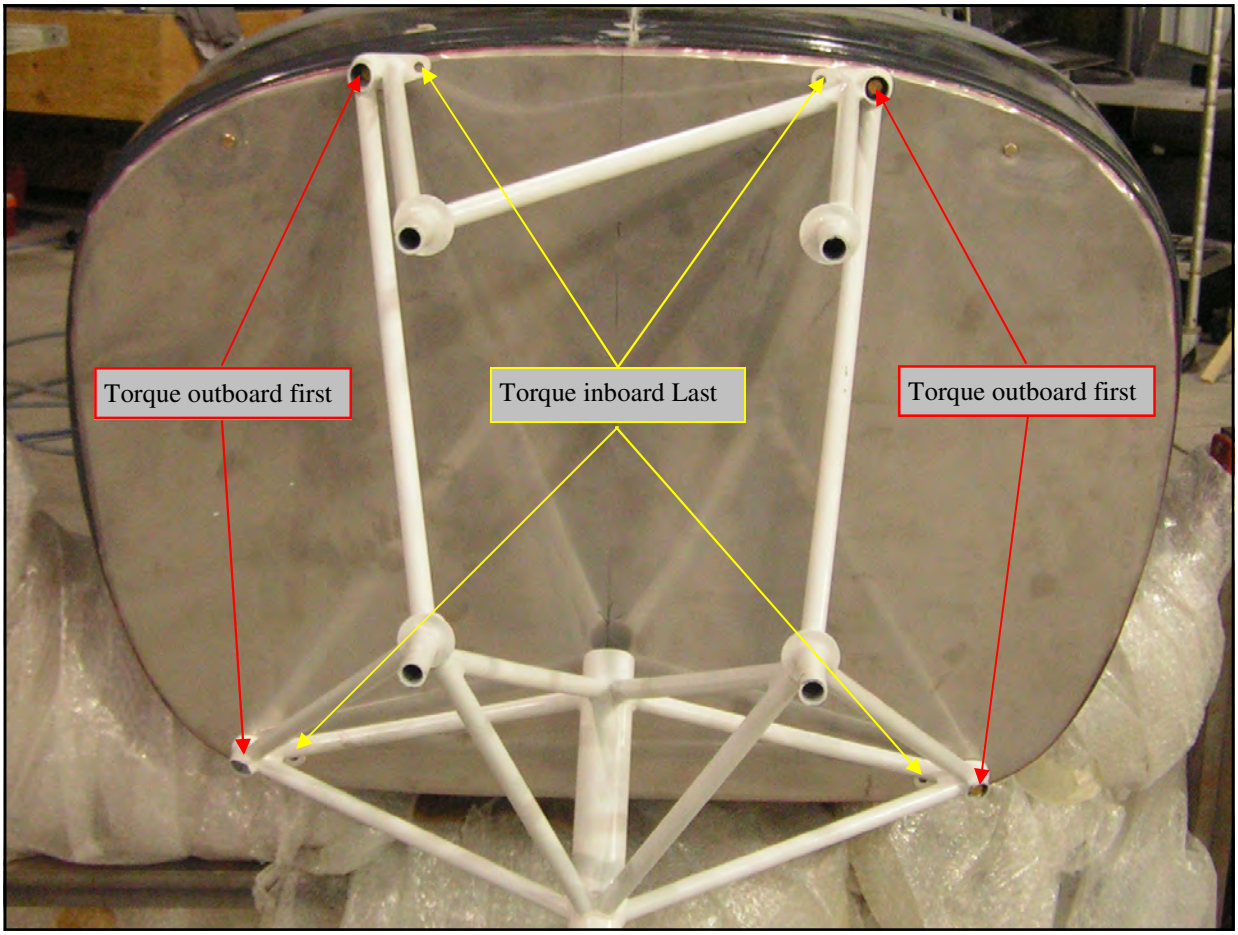


18. Locate mount back plate PN ALM-0012
19. Insert an AN4 bolt thru the plate and outboard engine mount holes.
20. Center the inboard hole of the back plate on the centerline drawn earlier. Clamp in place with a vise clamp or similar.
21. Use a 1/4" drill bit in a drill, slowly run the bit in the back plate hole. Do not drill thru the engine mount, this is just to mark the engine mount.
22. Un clamp the back plate.
23. Wrap a piece of scrap metal around the mount tubes behind the plate before drilling the engine mount plate.
24. Use your mark and drill to 1/4". It is more accurate to start with a 1/8" drill bit and work up to the 1/4" bit.
25. Drill out the holes in the fuselage to 1/4"
26. Drill our the holes in the firewall to 1/4"
27. Bolt the engine mount to the firewall not installed on the fuselage.
28. Mark the inboard engine mount holes on the firewall.
29. Remove the mount and drill the inboard holes on the firewall. Work your way up to 1/4" as described earlier.
30. Install the firewall to the fuselage as written in Section 31 of this process manual.
31. Match drill the inboard holes in the firewall to the fuselage.
32. Carefully rheem the outboard holes as well, now that the mount is installed for the final time.

33. Refer to the Drawing at right to assembly the engine mount to the fuselage
34. The bolts will be either AN4-10A or AN4-11A depending on the thickness of the material being bolted to.
35. The bolt will go from the inside of the fuselage to the outside so that the nut can be inspected,
36. The mount back plate ALM-0012 is installed on the inside of the fuselage flange.
37. Assemble all 8 attach points snug, do not torque. This is to check that proper threads are showing thru the nut and the correct bolt was used.



38. After all bolts are installed and proper length is verified, the engine mount bolts can be torqued to the final value.
39. Verify that the torque wrench to be used is with in the calibration period. Use the special process control sheet AA-SPC-LS1-1 to log that you verified the wrench time from and that the engine mount was torqued to specs.
40. Torque the engine mount bolts to 10ftlbs. Torque the outboard bolts first. Shown in Red in the picture below.



41. Torque the inboard bolts to 10ftlbs, shown in yellow in the picture above.
42. Final check torque on all bolts, outboard bolts first, than inboard bolts.