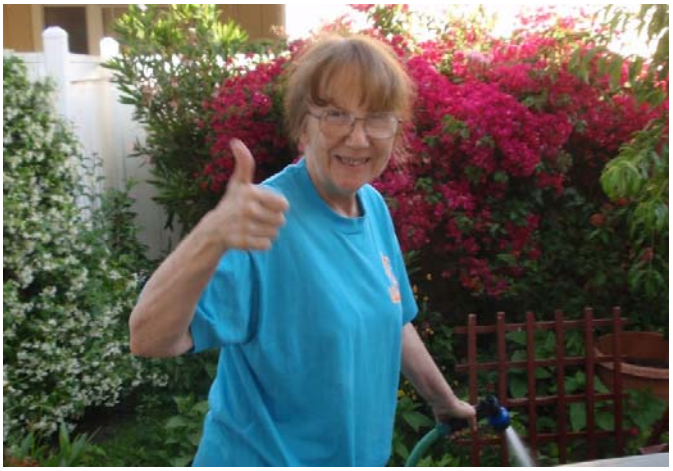
The First Flight

This is not at all about Wilbur and Orville's first airplane flight on December 17, 1903. This is all about N5807T and the people who have been associated with my day and my first flight in 07T after my airplane's engine overhaul. I had some anxiety about that.

For those of you who know me well, you know that my bedtime is often something in the early A.M. That was not true last night. I went out to dinner with my wife Sue and then I went to bed at 10:15. Yes, me.



My wife Sue our in backyard

Ed & Sue out to dinner

I woke up early today. Five O' something. I tried to sleep more. By 8:00 I was a bouncing bunny. Bad choice of words. But I was up, making coffee, checking current weather, and I still had an anxiety knot in my tummy.

Kent

I had two important things to accomplish today. Kent was going to come over from Anaheim to see if the seatbelt in my Mooney would fit around him. He is a plus size teddy bear and I plan to fly with him to Lake Tahoe next month. Then Dave, my A&P was going to go flying in my Mooney with me on the initial flight after my airplane's annual inspection and the imbedded Major engine overhaul.

Just a little history:

Some oil was leaking at the base of my airplane engine's cylinders and at other discrete places. Not a lot, just enough to make a mess on my nose gear doors after every flight. I remember Sofie volunteering to clean those gear doors a year ago. And, I was getting only 5 hours of flight time per quart of oil used. I asked Dave to remove the cylinders and send them to Corona Cylinder to have the cylinders overhauled. That is called a top overhaul in airplane talk. Then Dave looked around the inside my crankcase with his flashlight and found my camshaft had a worn down lobe. OK, that means removing the engine from the airplane, sending it to the engine shop, and splitting the engine wide open to get to the camshaft. Expensive stuff.

Ben and his staff at Corona Cylinder did my engine overhaul including sending my fretting crankcase to Oklahoma for lap and line bore. Everything to be re-used was checked for microscopic cracks. He obtained a new oil pump, camshaft, and cam followers for my engine. Ben sent my propeller governor to a prop shop for a complete overhaul. [My McCauley propeller had just been overhauled a few months earlier, so that was OK.] Oh yes he sent the fuel servo and the entire fuel system, right down to the fuel injectors to another shop for a complete overhaul. The spark plugs and ignition (spark plug) wires were replaced with new. Pistons, rings, bushings, bearings, valves, all new. When they were all done assembling the engine in their 'clean room', they put it on a test stand and ran it for an hour and a half. If there were any tweaks needed, such as adjusting the oil pressure, they were done then.

That is why they call it a Major overhaul. It is a Major reduction of my savings account.

Dave did the airplane's annual inspection, replaced my main gear tires, tested my landing gear retraction system, lubricated my landing gear, wheels, and all of the flight control points inside of my wings and tail-cone, had my pilot seat re-done with new foam so it no longer rubbed against the trim wheel, and his helper Nick, fabricated a special guard so I cannot (any more) accidentally engage my speed brakes on takeoff. That guard worked exactly just as he and I envisioned it would.

My seat clears the trim wheel now

New guard just below black speed brake switch

He replaced the light bulb that indicates if my landing gear is up or down on the display on the floor. The old one worked but it was too dim, it was the wrong bulb number. That is really helpful at night. He lowered my landing light aim angle, so it doesn't point at the birds in the trees anymore. He overhauled my magnetos which provide the oomph to my spark plugs, He had my cracked muffler repaired at a certified muffler repair shop, sent my oil cooler to a specially shop for a flush and pressure test, obtained all new fuel and oil lines with FAA certified orange colored fire protection sleeves, obtained a new alternator and belt, and did the engine installation. I bet he hooked up 100+ things. He didn't break anything and he left me with a clean airplane. He is my favorite A&P. The only things up front that are not brand-new or completely overhauled are my Lord engine mounts and my starter motor. Both of them are in excellent condition.

Back to today:

Kent was there waiting for me when I arrived at the airport. He was impressed at the newer Mooney because he had seen only 27 Victor before. He climbed in. Then we both heard the sweetest sound - **CLICK**. Yes, the seatbelt does fit him just fine. He's good to go. He went off to meet other friends.

Then it was Dave's turn. We wanted to accomplish this engine break in flight before it got warm outside, because Corona was going to go to 90° or 100° today. I ran the flaps all way up and all the way down and then back to the takeoff position. I ran the trim all the way nose down and all way up and then back to the takeoff position. Dave watched, approved, and then climbed aboard. I checked every knob, switch, circuit breaker, and gauge three times. Some things were not as I usually set them so everything had to be checked. For example, I don't usually turn each radio off. I just turn the avionics master switch off. But after somebody else has been in the airplane everything has to be checked and corrected if necessary.

Just a little more history:

My stomach had knots in it for the past week with the anxiety of this upcoming flight. I DON'T want to be a new test pilot at age 68. I was scared somewhat. I am human too. If something is going to break, it probably will in the first hour of operation. Dave reminded me that Ben's shop had already covered this with his hour and a half run-in of my engine. I didn't feel all that much better.

Another engine on Ben's run-in rig

Back to today:

I mentally pushed forward. Master on, prop and mixture forward, throttle 1/4" in, boost pump for two seconds, yell "clear prop", and turn the key. Wow, it fired right up, and seemed smooth and quieter. All the controls felt silky smooth. We had a memorized checklist of all of the things to do on this particular day. We taxied to the run-up area. Dave is a pilot, and he is my mechanic, so when engine temps came up, I slid that black throttle knob forward and turned onto runway 25 Corona. At 40 IAS, I smoothly slid it all of the way to the stop. That Lycoming IO360 A361B quietly roared as it came alive and pushed me ever so comfortably back in my seat. The new switch guard kept my knuckle from accidently deploying the speed brakes.

Dave was watching the important gauges and I was watching the runway center line and soon we had 70 knots indicated and I thought 'rotate', pulled the yoke back slightly, and we left the ground. It was like the old days, as if I had not forgotten anything. Left cross wind and climbing while calling out on the radio. Multi-tasking. Wow, it was fun again. Another call on the radio and I turned left downwind. A shallow climb to maintain engine cooling, then reduce power to 75% horsepower when safe to do so. I remembered there are important parameters to remember when breaking in an engine. The whole point was to get the piston rings to seat properly on the cylinder walls without overheating the cylinders.

I climbed to 2500' while orbiting my airport in case something went amuck but that never happened. At 2500' we were just under Ontario's class C airspace. After 10 - 15 minutes and 2 - 3 times around the airport area, Dave said "Let's go over there". I think he was satisfied that the engine was not going to break into a million pieces. So I left the area - resumed a climb, and we went over to the Lake Mathews area. I kept adjusting the power and Dave kept a tight watch on the instruments.

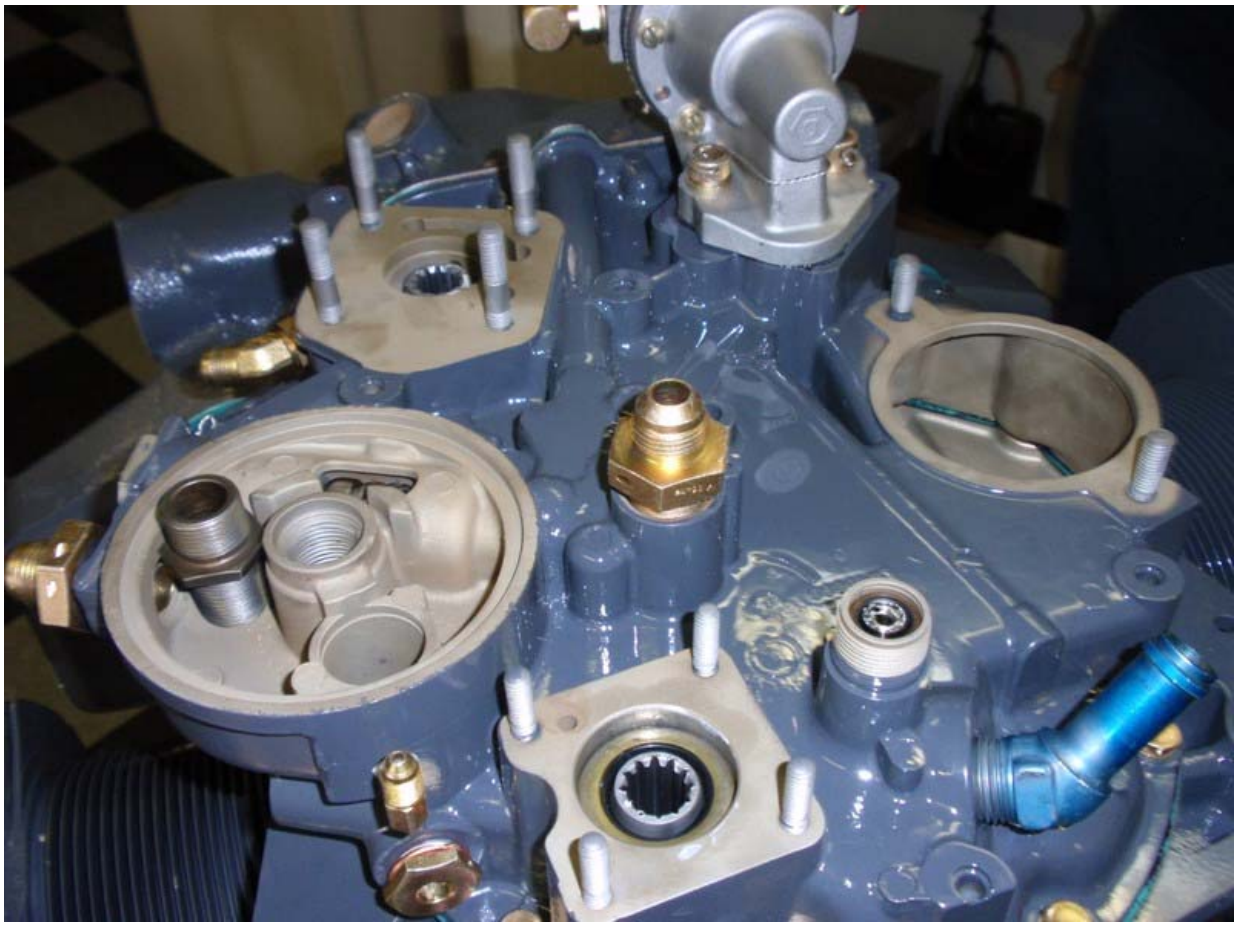
Then Dave asked me "OK, if I fly it for a while?" Dave usually flies Cessnas and Pipers and he was amazed at how tight, solid, fast, and fit a Mooney feels. Yes, a Mooney is the ultimate traveling machine. [You Mooney drivers already know this.]

He flew it for a good ½ hour then it was time to start to head home. About 10 miles out, he gave control back to me. Good thing, as there are no brakes on his side. Even though I started 5 minutes out from 3000', it was hard to slow that sweetheart down to 130 kts to drop the gear, then slower to dump in some landing flaps. Is it me, or is she even slipperier than before? I love her to death. What a babe. Yes, my expensive aluminum mistress.

Dave wants to remove her engine cowling one more time tomorrow to inspect everything hidden inside. 'No leaks of any kind allowed' is our motto.

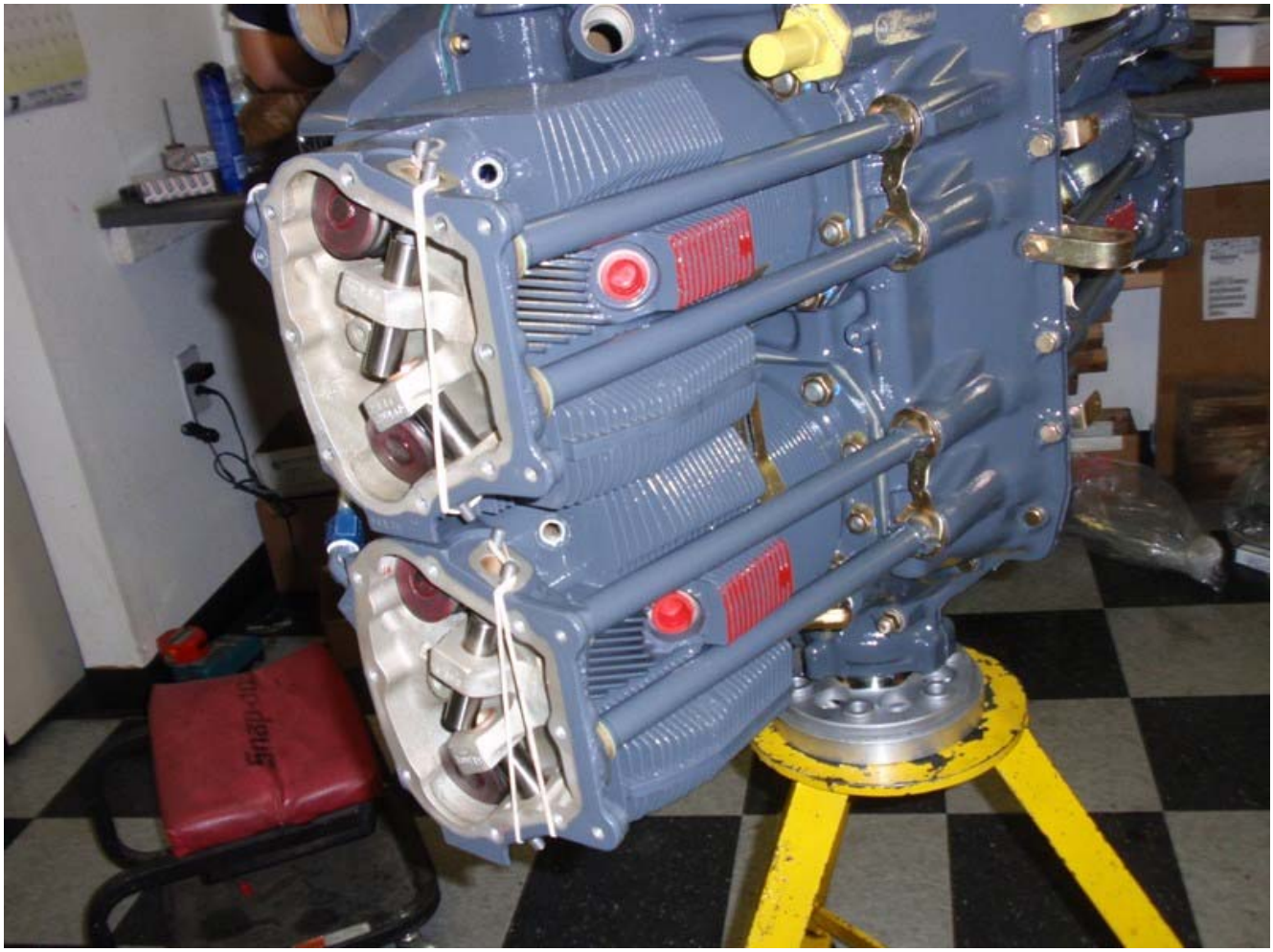
I will make a flight to Teresa's home in Phoenix, and then invite you to again join me below or above the clouds on our next escape from terra firma. I know the Lycoming O-360 and IO-360 engines have a reputation for being 'bullet proof' but I want to re-assure myself before inviting you.

A few more engine pictures from the overhauled engine assembly processes.



This is the back of the engine known as the accessory case.

The bottom with each cylinder’s intake and exhaust ports ready for their induction and exhaust pipes.



Cylinders #1 and #3 ready for rocker arms.

My tummy is calm. My Mooney's engine is clean and dry.

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