

On September 26th, I received a phone call from Tim Pritchard and was asked to see if I had time to look at the fuel system on N7133N. I informed him that I did have time at 1:00 pm that day and he arrived on time. I opened the cowling found nothing visually that could be an issue. I then disconnected the fuel line between the fuel pump and the throttle body, unmetered fuel, and installed my remote gauge to check to see where the fuel pressure was currently set. I removed the RH inspection cover of the lower cowling to gain access to the throttle body so that idle mixture settings could be adjusted. Tim operated the engine from the cockpit through voice commands from me and found that the idle mixture was slightly rich and the fuel pressure at idle was within specs. I readjusted the idle mixture setting at the throttle body and then checked the fuel pressure on the remote gauge. The fuel pressure was still within specs. The engine was shut down twice and restarted and the fuel pressure at idle and idle mixture settings were checked again. Tim said the engine ran so much better after making the adjustments with the idle mixture. I then removed my remote gauge from the unmetered fuel line and reattached the fuel line back to the fuel pump and checked that it was secure. I checked the locknuts on the idle mixture adjustment arm and did a complete visual of the engine compartment to make sure everything that I had adjusted was tightened and secured if necessary.

Adjusting the idle mixture rise was the only adjustment needed. All pressures were within limits. I then reinstalled the lower cowl cover and then secured the cowling. I was asked if I wanted to go on the test flight and informed Tim that I would, but had to keep moving on the engine currently being assembled. I gave Tim instructions to take off and go to 6500 MSL and circle the field and check the mixture setting and see what the CHT and EGT temps were operating at with settings at a cruise configuration. If everything looks good, come back in and land and I would check the engine over. He said after he landed he would see how it reacted because that is where it would sometimes quit on roll out.

I watched Tim take off and everything sounded and looked good from my vantage point and he continued with retracting the landing gear and I watched as he continued the climb to altitude. He circled the field as I requested and everything sounded good from the ground. I went back to the tool box to get my tools ready to open the cowling when he came back. I saw that he was on left down wind for runway 9 and I talked with our employee, Brian, about the engine he was getting ready to ship. I came back to see where Tim was at after landing and Brian said he heard a plane take off and it sounded like it was "having issues". He thought it was a Bonanza. I went back to the hangar to see where Tim was at and I then I received a phone call from Tim informing me that something had happened and he was in a field East of the airport. I made him repeat what he had said because pilots do joke with me at times. I informed him that I was on my way and I went to Beegles to pick up Jared and continued to where N7133N came to rest in the field East of the airport. I knew that the emergency responders had already been called. Tim did a great job in getting the airplane down without any injuring to himself. He explained that after landing that he had made an attempt to do a touch and go by adding power quickly to see how the engine would respond and at about 400 AGL the engine started running rough and he turned the boost pump on and operated the mixture from midway to full rich with no noticeable positive response from the engine and decided that finding a place to land was necessary. Immediately necessary. I stayed with Tim while the airplane was recovered and continued to discuss what all that happened.

During the engine overhaul in late 2011, it was found that a large amount of debris was found in the fuel pump by the overhaul facility. It appeared to be from a deteriorated fuel bladder that was changed prior to the engine work. I then asked the shop that was doing the engine R&R to inspect the airframe fuel system components and they had found debris in the airframe system that was consistent with what the fuel system overhaul facility had found in the pump.

Joe Folchert