



U.S. Department
of Transportation

**Federal Aviation
Administration**

Aviation Safety

Flight Standards District Office

Rochester, New York

Fax: [REDACTED]

December 13, 2022

VIA ELECTRONIC MAIL

Timothy W. Monville
Sr. Air Safety Investigator
National Transportation Safety Board
[REDACTED]
Ashburn, VA [REDACTED]

RE: N51TM ERA22LA287

07/07/2022

Traveled to KIUA to examine aircraft for NTSB to determine what an instrument was. Turned on master and determined unit to be some type of engine analyzer. Removed unit for shipment. Portable GPS unit also removed from aircraft for shipment.

A fuel smell was noted when the master switch was turned on and boost pump activated. Removed upper and lower cowlings and inspected engine, controls, accessories. No issues noted. When an attempt to start the engine was done, the fuel line coming from the filter assembly to the engine driven fuel pump came off when the boost pump activated. The fuel line was pushed back on the fitting at the filter with no resistance noted. The line could be slid on and off with ease. Put line back on the fitting and tighten the clamp, (note-the clamp screw was hard to turn). This could have led to believe the clamp was secure. Examination of the line and lower cowl determined the possibility the line was held loosely on the fitting by the lower cowl. After the line was secured, an attempt to start the engine was done. The engine would not turn over fast enough to start, as the battery was low.

07/14/2022

Traveled to KIUA and inspected engine. Found no issues or leaks. Removed top spark plugs from numbers 1, 3, 5. All plugs looked satisfactory, with an indication of running slightly rich. Reinstalled plugs and attempted to start the engine after battery was on trickle charge overnight. Engine would still not turn fast enough to start. A booster was connected to the battery terminals. Engine started after about 6 to 8 seconds, and idled smoothly. After about 3 minutes, the engine started chugging a bit and then died. Engine acted as though it was very rich. Engine was started again and when the throttle was advanced some, the engine smoothed out and ran normal. When throttle was again brought back to idle, it chugged and quit. Suspected that wheat kernels were in the intake area by throttle plate.

Engine instrument and GPS units boxed up and given to inspector Mantione to take to the office for shipment.

8/4/2022

Traveled to KIUA to inspect induction system at carburetor. Removed 3 inch piece of scat tube and found a small amount of dirt and wheat pieces in scat and carburetor inlet. Cleaned debris and used compressed air to blow out inlet and carburetor.

Attempted to start engine several times with no success. After a few more attempts engine started.

- The engine was run engine about 3 minutes at 1000 RPM (est.), then brought back to idle for 3 minutes. Engine ran normal with no chugging noted. Discovered that this engine uses a choke to start

engine. Determined choke must have opened when compressed air was used to clean out the carburetor and intake. This would explain why engine started good on 7/14/2022, and hard to start today. Verified the choke was open about ¼ to ½ way using a light and mirror. Reference to the POH states to pull the choke to start the engine. Note: unable to determine engine RPM do to the fact the Engine Instrument System unit was removed for NTSB read-out. 2

During more inspections of the aircraft, it was found that the left fuel tank supply line at the fuel selector was not connect. Inspection revealed the line was too short to connect to the selector due to the result that the attachment panel with the fuel tank selector, was bent to the right a couple of inches during the accident. The line must have come off at the time of the accident. Bob Mincer the airport manager stated he remembers a fuel smell inside of the aircraft when the aircraft was first brought into the hangar.

It should be noted that the engine runs were performed using the right fuel tank both times. Bob Mincer called the pilot/owner Allan Mantell and asked him what fuel hose he replaced as noted on the aircraft inspection sheet. He replied he changed the hoses in the cockpit at the boost pump. Bob also stated the pilot still does not remember anything about the accident. Bob visited the pilot the day before.

Sincerely,

THOMAS G
MCCORMICK

Digitally signed by THOMAS G
MCCORMICK
Date: 2022.12.13 13:16:10 -05'00'

Thomas G. McCormick
Principal Maintenance Inspector
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