



NATIONAL TRANSPORTATION SAFETY BOARD

Eastern Regional Office (Virginia)

45065 Riverside Parkway

Ashburn, Virginia 20147

Fax: (202) 905-0232

January 6, 2017

Mr. Brazy,

I completed the engine exam on N3941X on January 5, 2017.



First I noticed that the propeller showed little signs of power, one propeller blade was bent aft, midblade while the other blade showed signs of "S" bending. One blade had the propeller blade knob fractured and the blade could freely spin 360 degrees.

After removal of the lower engine cowling, and removal of the top spark plugs, the engine was manually rotated. The engine rotated smooth without any signs of grinding. Thumb compression was performed on all cylinders with good compression.

The oil “finger” screen was removed, it was clean and clear of debris.



The number four cylinder was removed to gain access to the case and view the crank, cam and internal components. The push rods were clean, no carbon or metal present. there was no rust present in the cylinder, no scoring from rings or any signs of rubbing.



The valves were seated and no traces of overtemp.



Pushrods, rockers were clean, no metal and well lubed.

The piston and rings were clean, no marks and showed normal wear and not overheated.





The piston rod was clean, moved freely and well lubed. The visual of the cam, crank and internal that could be seen from this opening was clean, no corrosion and no metal visible.



The oil filter was previously removed by the FAA and cut open, only the filter case remained and small signs of carbon deposits could be seen in the bottom of the filter case.



Both mags were removed, manually rotated and produced spark from both mags. Both mags were opened up and showed no signs of wear, clean and looked new.



The fuel servo was removed and inspected for debris, the servo was clean and the finger filter was clear of debris. The air and fuel diaphragms were in good conditions with no tears or marks.



The fuel filter in the mid center section of the plane was removed for exam. It was clean and clear. It was full of 100LL aviation gasoline. All the injectors were removed and inspected. They were all clean and clear of debris.

The flow divider “spider” was opened for exam, it was clean and clear of debris and the diaphragm was in good condition.

All fuel lines were blown through and clear of debris.

The air filter was removed and found clean and clear of debris.

Sincerely,

Daniel Boggs
Air Safety Investigator
National Transportation Safety Board
45065 Riverside Parkway

