



U.S. Department
of Transportation
**Federal Aviation
Administration**

Nashville Flight Standards District Office

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August 7th, 2023

Timothy W. Monville
Sr. Air Safety Investigator
National Transportation Safety Board
[REDACTED]
Washington, DC [REDACTED]

Dear Mr. Monville:

Please find below my statement on the accident of N9313J Piper PA-28-180 S/N 28-3193.

I gathered items and left the Nashville FSDO for the hour drive to the occurrence scene 0730-0800 on the 22nd of May 2023 with Ops ASI Steven D. Sinclair. We arrived at the residence of the property owner approx. 0915 local time, approximately 9.15 miles north / northwest of Smithville municipal airport (0A3). Parked the GOV at the residence, gathered needed items and walked to accident scene approximately 1 mile down a field road. Once we arrived, Mr. Sinclair began taking the pictures from a radius. I began searching the scene for items, parts or equipment shed by the aircraft and noting distances from aircraft resting place, working my way in from the outer radius. Investigation noted that both fuel cells were found to be over 3/4 of a tank full of blue avgas. There was no signs of any previous or current fuel leaks, from accessible areas. There was also no smell of fuel noted.

Investigation found no sign of any engine oil leaks on the belly of the aircraft that was accessible or in the engine cowling. Once inside the cockpit it was noted that the engine throttle and mixture controls were noted to be in the full "Cut off" position. Operational check of both the throttle and mixture controls were noted to be working properly and full travel was visually verified. The operation of the carburetor heat control was checked and found the cable trying to make travel. However, the arm/cable control attach point was being bound by the lower cowling being compressed up against it due to the nose of the aircraft resting on the ground. The main aircraft fuel tank selector / cut off was found to be in the right hand tank position. The engine primer pump control was found closed and locked.

During exterior investigation the propeller was noted to have one bent propeller blade from impact with the ground and was bent at approximately the half length position. The short distance the aircraft traveled appears to be due to the wheat growth being approximately 3' high and the slight uphill grade within 12 feet of touch down location. The right wing appears to have sunk down into the wheat further than the left. This seems to have caused a more rapid deceleration of the aircraft. The aircraft then contacted the ground with the nose when the nose gear collapsed causing the aircraft to lift the tail and pivot clockwise coming to rest on an east-northeast heading. The aircraft was attempting to land on a westerly heading. Both the pilot and passenger walked away with no serious injuries. The pilot (Also the aircraft owner) stated that he had a "scraped nose", and some slight evidence of blood was noted at the scene. Both people walked to the property owners home almost a mile away

for assistance. Inspection of the aircraft paperwork onboard found the Airworthiness certificate but not the registration. Inquiry with the owner stated that he keeps the registration in his flight bag, which he took with him when he left the aircraft.

After review of documentation and records for the aircraft and pilot my understanding of the events from the pilots' statement led me to believe that an inspection of the mufflers was needed. A video was taken with a borescope of the forward and aft mufflers. It was noted that the forward muffler was coated with a black oily soot and the aft muffler was not, it looked normal. The decision was made to remove the top spark plugs and borescope the cylinders at first opportunity.

I arrived at the holding area for the aircraft, AMF in Springfield, TN. I removed the top cowling for the engine access. The ignition leads for all 4 cylinders top sparkplugs were removed from the plugs. The top spark plugs of all 4 cylinders were removed for inspection. The #1 and #2 cylinder spark plugs were noted to have a black and oily residue covering the tips. The #3 and #4 spark plugs appeared to be firing normally and have no abnormal indications. A borescope was used to inspect the #1 cylinder and there was corrosion pitting and wear noted on the cylinder walls. The borescope was then used to inspect the #2 cylinder and multiple crescent moon shaped indentations were noted in multiple places on the top of the piston. The borescope was adjusted to look at the valves and it was noted that the exhaust valve was missing. The spark plugs were reinstalled snugly with a socket and the ignition leads were reinstalled by hand only. The engine records show annual inspection was completed 7.0 hours previously on April 4th, 2023. At that time compressions that were recorded in the entry did not seem abnormal. The oil filter was removed, cut and inspected with no defects noted in the entry. No in-depth engine maintenance was performed during the annual inspection.

If you have any questions, please call or you may reach me through email at david.a.clouse@faa.gov.

Sincerely,

**DAVID ALAN
CLOUSE**

Digitally signed by DAVID ALAN
CLOUSE
Date: 2023.08.07 14:11:39 -05'00'

David A. Clouse
Principal Maintenance Inspector