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To: [Rodi Jennifer](#)
Subject: PA-32, engine run
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After the accident, the airplane wings were removed, for transport and recovery to the salvage yard. The engine exam and run was conducted at the salvage yard.

A visual inspection of the motor was conducted, no obvious abnormalities were noted, the engine was free to rotate. The sound of the magneto impulse couplings were noted. The engine oil appeared normal, and the dip stick indicated about 10 quarts of oil in the sump. The airplane's battery was charged for the examination.

For the engine test run, the fuselage was strapped down to a trailer. The damaged propeller was removed and a two-bladed, constant speed propeller was installed. Additionally, a fuel can, was connected to the electric driven fuel pump, located just aft of the pilot's seat. Due to damage to the fuel line, a fuel line was then run outside of the fuselage, and plumbed into the engine driven fuel pump pickup point.

The airplane's master switch was turned on, however, when the electric boost was turned on, no sound was heard coming from the pump. A inspection of the pump, noted the electrical wires had been torn from the pump, during the accident. Troubleshooting the electrical wires, found electrical power through the wires, however, in order to operate the pump, the wires had to be manually connected to the pump. The wires were connected, and the pump, appeared to operated. Fuel/air sound was also noted at the engine. The starter was engaged, the propeller rotated. However, the engine did not start. Additionally, fuel was added by again operating the electric fuel pump. Again, the engine did not start. The attempt was repeated several times, until fuel, was observed coming from the overflow tube. The engine was allowed to set for several minutes, before another attempt was made. The engine did not start, so the bottom set of sparkplugs were removed. The plugs appeared wet from fuel. It was also noted that the sparkplugs appeared 'worn out – severe' when compared to the Champion Check-a-Plug card.

Another set of six sparkplugs were located and installed in the engine. After several more attempts, the engine started and run at idle. The engine was run up, to test the propeller and magnetos, it was noted that the engine would not run when the right magneto was selected. The engine was run up to power, and no other anomalies were noted.

The right magneto was removed and bench tested. The examine of the magneto found the magneto did not produce any spark on the test bench. Further exam of the mag found the coil was bad. After the engine run, the top set of sparkplugs were removed and again the left set of top sparkplugs appeared worn out normal/severe. The right set of top plugs appeared normal.

The airplane was equipped with a JPI engine monitor. (Download TBD).

Despite the inoperative right magneto, the engine developed power and a loss of engine power was not observed. A reason for the accident's flight loss of power was not found.

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