

March 26, 2021

Inspector Statement, Cessna 170A, s/n 19383, N9515A

Inspector McCarty and I met with Mr. Jim Swanson at the St. Peters Recovery facility on March 24, 2021 @ 0830 hours. The aircraft, N9515A was stored in a hangar at the facility. Several photos were taken to document the condition on arrival.

On initial inspection, we found the wings, wheel skirts, and interior seats removed. The four engine mounts are broken and the engine pushed back toward the firewall, alternator terminals broken & smashed into firewall, prop bent, wing spars bent, vertical stab bent, cockpit window broken/cracked and numerous skin buckling sites. The recovery team previously removed the main aircraft battery. The airworthiness certificate and registration could not be located.

Mr. Swanson retrieved the main battery and a roll of toilet paper (T.P. roll found lying next to battery at accident scene) for our inspection. The main aircraft battery, manufactured by Odyssey Battery, is Model PC680 and has marking codes: 1927R02 & 0769-2016-0920 and bar code: 0574D201820300. Using a Fluke Digital Multi-meter, the battery measured 12.45 volts with no load. A five second load was presented to the battery using an Automotive style Battery Load Tester (see photo "Battery 3.jpg"). During the load test, the Fluke Digital Multi-meter indicated 11.8 volts steady and the Battery Tester indicated the same voltage on its analog meter and in the "GOOD" range while under test.

NOTE: the Fluke Digital Multi-meter and Auto Battery Tester do not have calibration certification. This inspector has no reason to believe these voltage measurements are in error due to the fact the Fluke Digital Multi-meter displays acceptable readings from other known voltage sources, i.e. functioning car battery, wall outlet, etc.

The battery contactor relay main bus cable and control wire were found pulled out of their respective ring terminals. These wires were temporarily installed into the respective terminals and battery reconnected. With the master switch actuated "ON" we observed the Comm/Nav radio digital frequency display(s) to turn on. The Cigarette style lighter outlet was measured to have 12.45 volts at its center contact. A automotive style phone charger was inserted into the cigarette lighter outlet and was able to charge an Apple iPhone (see pics "Phone Charging", "Phone Charging & Radio On" and video "Phone Charging").

Mr. Swanson lifted the engine with a hoist to allow access to the alternator. We removed the alternator to allow for testing. The alternator's 4 electrical terminals were found broken away from the alternator but still connected electrically. Other than the broken terminals, the alternator did not appear to have any further damage. With the master switch actuated "ON", we spun the alternator with a Dewalt Screw Gun (rated at 1500 RPM). The Fluke Digital Multi-meter indicated 12.45 volts regardless of alternator spinning or not. We noted the alternator system, ground wires (2 ea.) mounted to the firewall, were loose and able to freely rotate around the single sheet-metal mounting screw. We temporarily relocated the 2 ground wires to a different

ground location (on the firewall) and retested the alternator. Regardless of alternator spinning or not, the voltmeter read 12.45 volts.

Per NTSB request, we removed the alternator, alternator voltage regulator and battery for further testing. We supplied a hand written receipt to Mr. Swanson for items removed. These items are in custody of the FAA STL CE-03 FSDO pending location of a repair facility capable of testing the system.

No further work performed. We departed the St. Peters Recovery facility @ 1230 hours.

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MUELLER

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Dennis J. Mueller
Principal Maintenance Inspector



CE-03 FSDO