

Inspector's Statement

On 03/31/2021 at approximately 1015 CDT, I met A & P mechanic Johann Lourens, CEO of Medallion Aviation LLC and two of his mechanics, Larry and Keith at the Marianna Municipal Airport in Marianna, FL to witness the inspection of the electrical system of CE-P201N, N7736K

Larry and Keith removed the top engine cowling. Preliminary inspection showed no indication of any issues. Battery, voltage regulator, and connections looked normal. The battery voltage was checked with a hand held voltmeter and showed the battery voltage was 20.7 volts. Keith then begin to inspect the voltage regulator and noted that the plug from the regulator to the electrical system was very loosely connected and appeared not to be connected enough to charge the battery. The connector plug do not appear to lock tightly to connect and seemed like it could easily vibrate loose. Keith also noted that there was no tie wrap or anything to prevent the connector from becoming loose or disconnected. I attempted to connect and disconnect the plug as well and also noted that the connection was very loose and could easily pull apart with very little effort. Keith remarked that it should "click" into place and should take some effort to pull the plug apart.

Mr. Lohrens stated that if the connector was loose and the battery was not charging, then it supports the pilot's claim that he did not see any discharge indication on the ammeter during flight.

All three mechanics present confirmed that this connector was the likely source of the electrical issue since the battery was not charging and therefore no longer producing sufficient electrical power to support all the electrical equipment. Various equipment such as the autopilot, radios, as well as the electrically driven hydraulic pump would begin to fail or not operate properly. Without adequate hydraulic pressure, the gear would not lock into place. Adequate hydraulic pressure may have been obtained by using the hand pump.

I did not take any further pictures of the interior or exterior of the airplane.

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04/5/2021

Nina A. McBride

Aviation Safety Inspector, OPS

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