

N2184T evaluation

09 February 2024

Performed by Twining Aviation Maintenance of Carlisle, AR

In attendance from LIT FADO- Greg New (A/WASI)

The evaluation was performed on the ramp area at Conway Municipal Airport (CXW) in Conway, AR. Mr. Twining and assistant shored the aircraft (the nose gear is broken off at the yoke and the strut is folded under the aircraft) as level as possible with the equipment available. The upper and lower engine cowlings were removed. An initial inspection of the engine showed a broken engine mount, crushed air inlet box and muffler and engine controls with binding due to the broken mount. The lower spark plugs were removed, and a compression test was performed. #1 73 #2 75 #3 70 and #4 72. The remaining spark plugs were removed, and all had normal coloration with no wear or fouling. The valve covers were removed. The engine was rotated through multiple revolutions with normal crankshaft, piston, and cam shaft movement, indicated by movement of rocker arms at each port on all cylinders (each had proper oiling also). The impulse coupling on the magnetos were "clicking" and there was intake vacuum at the vacuum pump. This indicated normal accessory gear movement. Spark was present at each ignition lead. All fuel and oil line connections were tested for tightness, and none were loose. The fuel had been removed from the aircraft for movement from the crash site, so several gallons of that fuel was put in each tank. The output line from the fuel boost pump was disconnected. With the boost pump on there was a steady flow of fuel when the selector was placed in right tank and left tank position. There was no fuel when placed in the off position. When the selector was placed in the position it was in when I photographed it at the scene, there was a slight stream of fuel that would not be sufficient to keep the engine producing power. Equipment to measure fuel flow and psi was not available at the time of the evaluation.

In summary, the engine appeared to operate mechanically as it should. It produced sufficient compression and spark. The fuel pump produced a strong fuel flow and the fuel selector operated as it should. Damage to the engine mount and airbox prevented full movement of the throttle, mixture and carburetor heat. These things along with the bent propeller prevented any attempts at running the engine.

GREGORY SCOTT  
NEW

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