



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety

November 8, 2019

ENGINE EXAMINATION

CEN19LA233

A. ACCIDENT EXAM

Location: Air Salvage of Dallas (ASOD)
Date: November 8, 2019
Aircraft: Cessna 172: N8251L
NTSB IIC: Jason Aguilera

B. EXAMINATION PARTICIPANTS:

Craig Hatch
Air Safety Investigator
National Transportation Safety Board
4760 Oakland St., Suite 500
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C. SUMMARY

Examination of the recovered airframe and engine was conducted on November 8, 2019, at the facilities of ASOD. The complete airframe was resting on stands. The wings had been removed, (for recovery) from the fuselage. Additionally, the horizontal and vertical stabilizers and related control surfaces had been removed.

The fuel selector was in the OFF position; the selector was turned by hand, the selector moved through each position. A 'light force' was required to turn the selector, each position was noted with a light detent at each position. The airplane was not equipped with an engine monitor, the tachometer time read 1,821.11 hours.

The engine was equipped with a spin-on oil filter, the filter was absent an installation date/engine time. The oil filter canister was cut open and the filter element inspected.

D. DETAILS OF THE INVESTIGATION

1.1 Exam Photos



Nose section of the airplane before the engine cowling was removed.



Front view. Both ends of the two-bladed fixed pitched propeller, show significant twisting, scrapes, etc.



Another view of the propeller.



A close of view of the propeller tip.

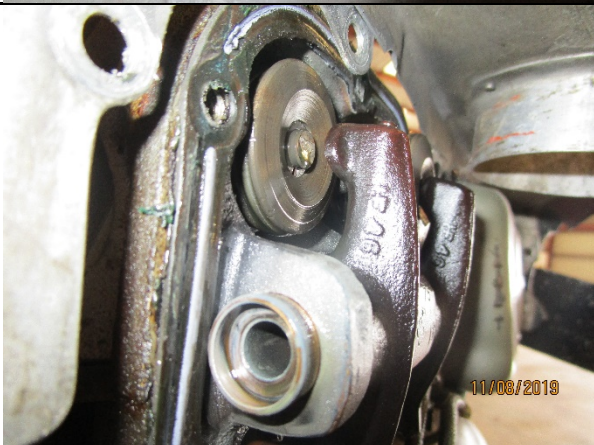
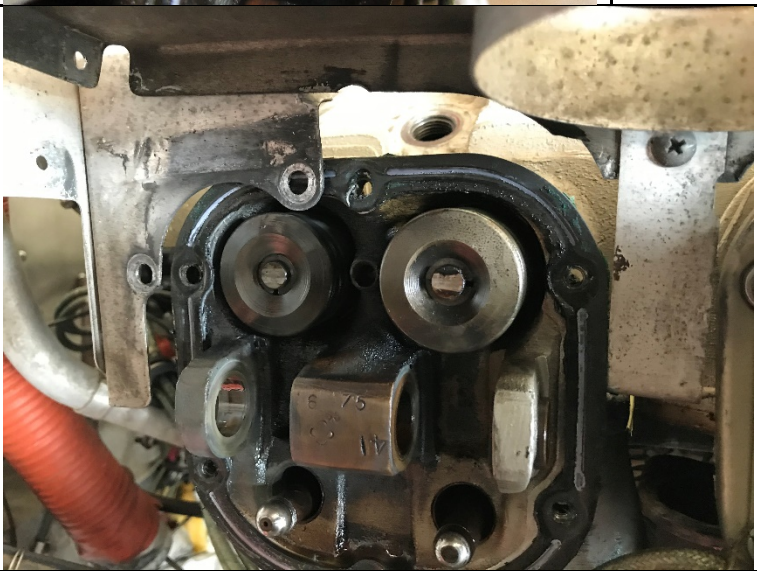


View of the other propeller tip.



Engine with cowling removed

	Evidence of slight oil leakage was noted
	Rust noted on exhaust pipe
	Controls were attached to the carburetor; inspection of the carburetor throat did not find any debris in its intake.

	The topset of sparkplugs were removed. The sparkplugs appeared normal. Spark was observed at each terminal, on the top set of ignition wires, when the engine was rotated by hand. Additionally, the impulse couplings were also heard.
	During thumb compression test; no suction/compression was noted on cylinder No 1. The exhaust valve was found stuck, in the open position.
	Some 'hammering' of the top of the valve stem is noted. Likely from rocker action, while the engine was running.