

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ANC23FA045

ENGINE EXAMINATION

July 26, 2023

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A. ACCIDENT

Location: Old Harbor, Kodiak AK
Date: July 2 2023
Time: 1510L
Airplane: Piper PA-32-300

B. ENGINE EXAMINATION

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NTSB

C. DETAILS OF THE EXAMINATION

1.0 Engine Examination

Propeller governor was broken off from impact forces.

Compressions,

#1 27/80 - using a borescope the cylinder looked new, valves looked good, debris from the air intake was found inside the cylinder.

#2 77/80

#3 52/80

#4 0/80 - Debris in cylinder,

#5 70/80

#6 0/80 - Cylinder cracked.

Borescope cylinders with low compression and found all cylinders in good over all conditions with signs of cracking from impact forces and debris sucked in from the air intake.

Drivetrain continuity from the propeller to the accessory case was confirmed by the vacuum pump moving when rotating the propeller. Valves moved equal distance.

Magneto timing was about 25°. Removed magnetos for bench function test and both produced spark.

Spark plugs were in used but good condition. All spark plug wires were secure.

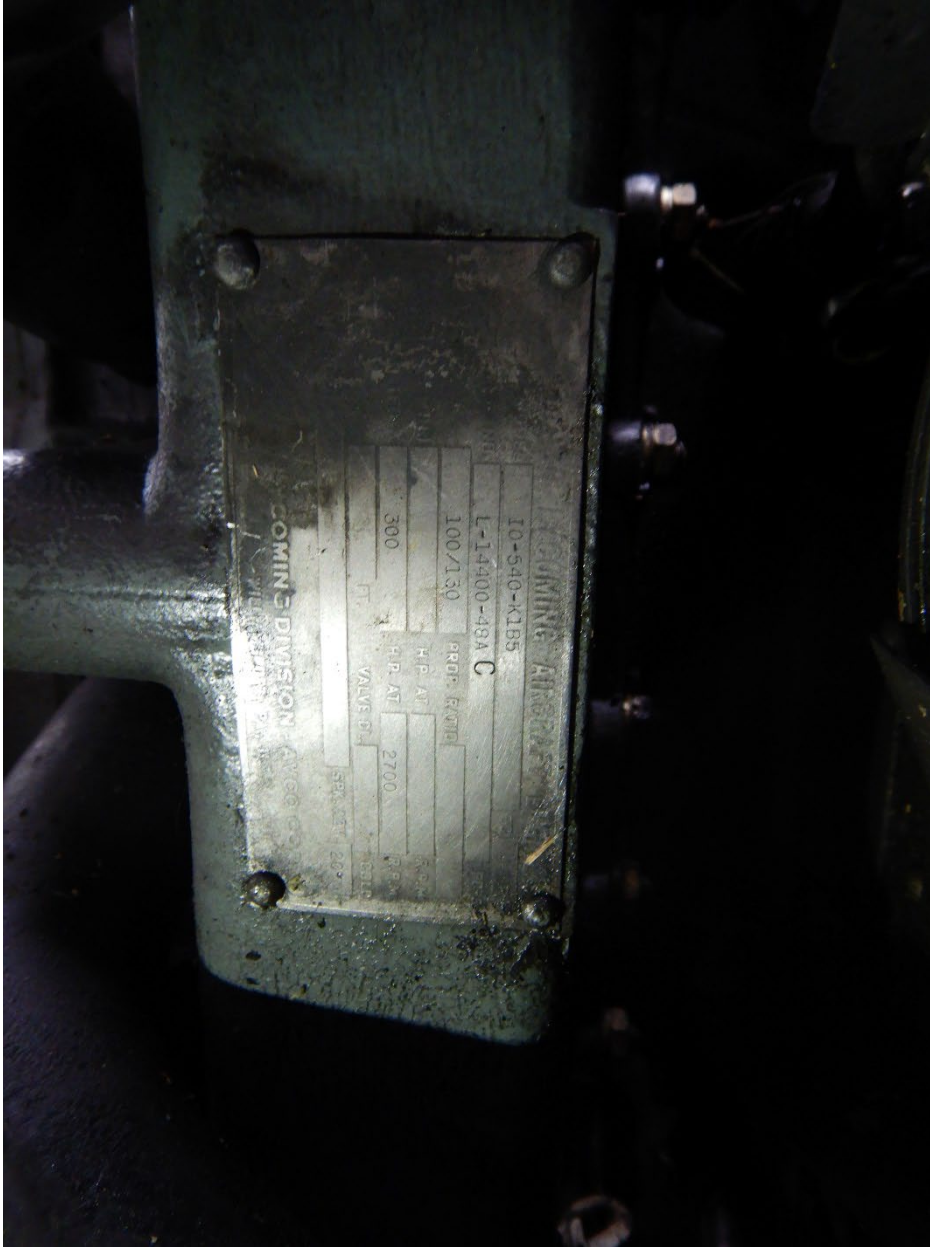


Figure 1. Engine data tag



Figure 2. Left side of the engine.



Figure 3. Right side of engine



Figure 4. Accessory gear box on rear of engine.



Figure 5. Top row of spark plugs removed from engine.



Figure 6. View of cracks in cylinder.



Figure 7. Top view of engine

2.0 Propeller Examination

All three propeller blades were curled back and had nicks, dents and cuts into the leading edges of the propeller. All propeller blades had rotational scoring. The propeller hub had oil in it. Propeller attachment nuts were all safety wired.



Figure 8. Propeller assembly after removal from engine.

Submitted by:

M. Ward

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