

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: N4379L
Date: Thursday, August 30, 2018 18:25:41
Importance: High

As requested, This is just a quick overview from me of what I have seen. Dale Hoff is working on the -23 findings and report. We will get together when I get back from TDY Sept-10 2018.
- Last Annual Inspection was performed on 11/2017. Don't have the amount of hours since annual.

- The pilot said during their travel that day they landed at an airport (Dale Hoff will know exact airport) and fueled the aircraft and added about $\frac{3}{4}$ qrt of engine oil bringing the level to about 7 quarts. The pilot stated it took a couple of engine start attempts before the engine finally started.

NOTE: The pilot said she fuel primed the engine on both of the engine start attempts and the fuel prime felt weak.

****** I don't know why the pilot would have fuel primed a hot engine with outside temperature in the upper 80's?.

- Pilot stated they just received their pilots license. Don't know the pilots total flying hours, or their total flying hours in make and model on this Cessna 172G aircraft. Dale Hoff should have that information if needed. The carburetor heat was not used according to the pilot. Problem started at about 4500' AGL about 1 $\frac{1}{2}$ hours at cruising speed when the pilot stated the engine started sputtering, she moved the fuel enrichment to the "FULL" enrichment position which did not help. The pilot did not try carburetor heat. The engine continued to sputter until it shut down. When the aircraft came in the pilot made a sharp turn looks to be trying to miss the telephone guide wires and land on the street. But; the aircraft right wing contacted the ground and the left wing contacted the telephone guide wires, abruptly spinning the aircraft in a counter clockwise direction with it only traveling about 40' until it came to complete stop. The tail section bent counter clockwise opposite from the clockwise force being applied and bent towards the right wing. Pretty much broke off. The pilot did say the propeller free spun during descent.

Here Are The Things Missing or Damaged On Engine Preventing a Start Up If You Want To Try and Start.

1. Propeller Blade is bent, need to replace to start, heavy vibration would occur.
2. Front wheel and lower strut broken off. Could secure fuselage on crates.
3. Battery Missing, have to check to see what happened to it
4. Key missing have to get with owner to see what they done with it
5. Carburetor inlet flange broken will have to get new carburetor, gasket mounting bolts for startup.
6. We cut the throttle cable and mixture cable during removal, would have to temp rig cables for the start
7. Tail section broken off would have to use salvage yard fork lift to support aircraft in position
8. Heater duct broken would have to secure
9. The carburetor filter assembly was bent but was in great shape on the inlet side. Should have no issue operating without air filter
10. Reconnect the few things we disconnected such as the Gascolator, fuel lines, Igniter

plug wires ETC.

****Other than that it should be ready to try to start****

- What Myself and The Mechanic performed When Investigating engine shutdown cause 100 Hour Inspection of engine minus a couple of checks such as compression check not completed.

1. Numerous spark plugs showed signs of running lean, Could not see hole or damaged pistons. But a few pistons had what appeared to be molted aluminum or something splatter on piston surfaces, could be some of the spark plug center cores but did not see evidence of this on general visual inspection.
2. Engine rotates smoothly with no noise or obstruction noted.
3. Carburetor had plenty of fuel in bowl, gas and bowl looked clean did not see any hard particles. (Float bowl fuel we put in a jar showed signs of very fine, low micro size looked like aluminum and brass particles. I feel these particles would easily pass by the Gascolator filter screen.
4. Carburetor float movement was normal, main jet needle and seat looked good, moved up and down with float.
5. Aircraft had 6 ½ qts of oil, looked new
6. Gascolator screen showed no sign of blockage or heavy particles, bowl was full of fuel, was clean looking and no heavy particles noted. (we pored the fuel from the bowl into jar. The fuel showed the same fine Aluminum and Brass particle looking sediment.
7. Spark plug gaps were good for the most part. Signs of the engine running lean for a while was noted. There was oil on a few cylinder lower spark plugs but the oil looked fresh and not like it came into cylinders during operation. We assume since the oil looked fresh and not baked it probably got into the cylinders from when the aircraft high rate of deceleration caused by the sudden stop or during the tow back to salvage yard.
 - a. NOTE: When the aircraft came in the pilot made a sharp turn looks to be trying to miss the telephone guide wires and land on the street. But; the aircraft right wing contacted the ground and the left wing contacted the telephone guide wires, abruptly spinning the aircraft in a counter clockwise direction with it only traveling about 40' until it came to complete stop. The tail section pretty much broke off.
8. Mag timing check was good
9. Bore scope of the cylinder combustion chambers showed signs of running lean. Some areas on piston tops had some type of molten splatter type puddles on them. But we did not see any holes in the piston tops and no chips or noted issues found during scope. The Ignitor Plugs Center Electrode Post did not look melted.

I am sending pictures as requested in numerous emails to keep size down

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[REDACTED]

From: Hodges Michael <[REDACTED]>
Sent: Thursday, August 30, 2018 3:41 PM
To: Nelson, Douglas E (FAA) <[REDACTED]>
Subject: N4679L - Photos/Notes

Hi Doug,

Here is my mailing address:

Mike Hodges, NTSB-CEN
4760 Oakland Street, Suite 500
Denver, Colorado 80239-2793

If you could please send me your photos and notes from the N4679L examination today, that would much appreciated. A CD or thumb drive will work.

Thanks for all the help.

Mike

Mike J. Hodges
Air Safety Investigator
Central Regional Office
Office of Aviation Safety
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“From tragedy we draw knowledge to improve the safety of us all.”

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