

Begin forwarded message:

From: Jeff Abbott [REDACTED]
Subject: NTSB
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To: [REDACTED]

NTSB
Date 9/13/2018

Pratt & Whitney engine s/n 513130 Model R-1340-AN1 Investigation / inspection. Object of investigation was to determine cause of said be lose of power leading to forced landing and lose of aircraft.

Upon inspecting engine the following was noted:

- 1) one prop blade was bent back rather severely approximately 70 degrees while the other was bent approximately 15 degrees.
- 2) carburetor was broken off of engine leaving only part of the mounting flange (I never got to inspect carburetor).
- 3) The right hand magneto cover was broken from impact but magnetos were other wise in tack and secured to engine.
- 4) engine turned though normally (with plugs installed) cylinders had compression with the exception of lower cylinder with broken ear.

The following steps were taken for further inspection of engine. The front plugs were removed and inspected for damage or sign of internal engine damage (none was found). Again engine was turned though, check for movement of all pistons up and down (checking for broken rod) no abnormalities were noted engine turned through freely and smoothly. Next blower impeller was visually inspected and back lash checked, the impeller looked normal but back lash seemed to be excessive, (rotating approximately .750-.800 of an inch.) no excessive end play or wobble in impeller was noted, along with no sign of contact between impeller and case.

Accessories were removed from rear case and all drives were checked for rotation. Magnetos were spun by hand and both would spark brightly (note: were unable to bench check or heat up coils to check for break down under a load). Main sump was removed. It was broken but had no metal or sign of internal engine parts were found. Main inlet screen was removed and no metal was found in screen, just sludge. Rear section / blower section was removed. A visual inspection of drive gears appeared normal. There were no signs of failure, no evidence of excessive heat, broken teeth, or metal chips, flakes or slivers. Rocker covers were removed and engine rotated feeling for clearance on all rockers, cylinder with broken ear was uncheckable along with one other cylinder with a bent pushrod and housing all others felt normal. Air box and filter assembly was inspected although damaged on impact. Air passage appears to have been open / unrestricted except for filters and it was noted carburetor heat door was wired in the open / off position.

In conclusion I found or saw nothing in engine that would have cause engine to lose power or not produce proper power. Three things are needed for engine to run spark, air, and fuel, from what I can see engine had spark, and air, fuel screen on aircraft was clean, Note: carburetor was not intact or with items inspected.

Jeff Abbot