

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Aviation Safety
Washington, D.C. 20594

July 10th, 2019

Engine Examination

Factual Report
By Adam M. Gerhardt

1. EVENT DETAILS

Location: New York, New York

Date: April 14, 2019

Aircraft: Cessna 172

Registration: N5296H

Operator: 2BAPilot NYC Flight School and Aircraft Rental

NTSB Number: ERA19LA150

2. SUMMARY

On April 14, 2019, about 2215 eastern daylight time, a Cessna 172, N5296H, was substantially damaged when it impacted a building and power lines during a diversion to John F. Kennedy International Airport (JFK), New York, New York. The private pilot and two passengers sustained minor injuries. The airplane was registered to N5296H LLC. and operated by 2BAPilot NYC Flight School and Aircraft Rental under the provisions of Title 14 Code of Federal Regulations Part 91 as a personal flight. Night instrument meteorological conditions prevailed, and an instrument flight rules flight plan was filed for the flight that originated from Niagara Falls International Airport (IAG), Niagara Falls, New York about 1710 and was destined for Republic Airport (FRG), Farmingdale, New York.

3. DETAILS OF INVESTIGATION

On July 10, 2019, the NTSB investigator-in-charge and an NTSB investigator assistant examined the accident airplane's engine at the recovery facility in Clayton, Delaware. This report details the factual findings from the examination.

4. ENGINE EXAMINATION

The engine remained attached the firewall. The propeller could be moved by hand freely. When the propeller was rotated by hand, thumb compression and suction was confirmed on each cylinder and each piston moved freely. The oil dipstick read 5.5 quarts. The oil appeared brown in color.

The top spark plugs were removed. When compared to the Champion Check-a-plug chart, each displayed varying combustion signatures. The #1 spark plug matched the

lead fouled characteristics. The #2 matched the carbon fouled characteristic. The #3 and #4 spark plug matched the lead fouled characteristics.

The air intake hose displayed cracking and fraying near the middle of the hose and was found touching the cabin heat air hose. The cabin heat air hose also displayed cracking and fraying at the position they both were touching.

The spinner remained attached with minimal impact damage. One propeller blade appeared undamaged and remained straight. The other blade displayed a rearward bend beginning at the mid-point from the prop hub.

The throttle lever moved the butterfly valve located on the carburetor. The vacuum pump hose was removed, and no obstructions were noted. The vacuum pump was removed from the accessory section of the engine. When comparing the wear indicator port to the manufacture wear chart, it was found to be within tolerances. The pump gear moved freely.

4.1. ENGINE EXAMINATION PHOTOGRAPHS



Figure 1: Overview of Engine Attached to the Firewall



Figure 2: Overview of the Top of the Engine



Figure 3: View of the Vacuum Pump and its Wear Indicator