



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

August 9, 2017

AIRFRAME AND ENGINE EXAMINATION

WPR17FA152

This document contains 7 embedded photos.

A. ACCIDENT

Location: El Monte, CA
Date: July 14, 2017
Aircraft: Jansen Pazmany PL-1, Registration #186EJ, Serial #186
NTSB IIC: Samantha Link

B. EXAMINATION PARTICIPANTS:

Samantha Link
Aviation Accident Investigator
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Mark Platt
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C. SUMMARY

Examination of the engine was conducted on August 9, 2017 at the facilities of South West Aircraft Transportation and Recovery, in Chino, California. No preimpact anomalies were noted with the airframe or engine that would have precluded normal operations.

D. DETAILS OF THE INVESTIGATION

1.0 Examination

- The engine remained attached to the damaged engine mounts
- There was no evidence of catastrophic malfunction or preimpact fire
- The propeller was displaced from the crankshaft flange at its attachment point, consistent with impact energy
- The top spark plugs were removed
 - The electrodes were free of mechanical damage
 - Consistent with normal operations when compared to the Champion 'Check-a-plug' chart.
- The engine was rotated by hand and thumb compression was established
 - Proper firing order was obtained
- The rocker box covers were removed and all rockers appeared to move normally
 - Did not exhibit signs of thermal distress or discoloration
- The carburetor was displaced from the mounting pad
 - Throttle cable was secured at throttle control arm
 - Mixture cable arm was displaced from carburetor consistent with impact energy
 - The foam air filter element remained free of obstruction and clear of debris

- o Carburetor heat air box was crushed and clear of debris
- o The carburetor bowl was opened and the bowl remained free of visible contaminants
 - No fuel was present
- o The carburetor float pontoons remained intact and exhibited no evidence hydrodynamic crushing
- o Accelerator pump well was devoid of fuel
- o The fuel inlet screen was clear of debris
- Gascolator screen remained clear of debris
 - o The gascolator bowl was removed and had about one ounce of fuel remaining
 - o Small unidentified fragments were found at the bottom of the gascolator bowl
- Both magnetos remained secured to their mounting pads
 - o Due to the destruction of the starter ring gear support, the engine timing could not be ascertained
 - o A magneto timer was connected to the magnetos and they are synced within one degree of each other
 - o The magnetos were removed and when rotated by hand, they both produced spark
- The fuel pump was removed and disassembled
 - o Clear of debris
 - o No evidence of corrosion or water
 - o Diaphragm is intact and undamaged
- Fuel selector was removed and air was blown through it.
 - o It was clear of debris
 - o The left fuel tank was selected
 - o The fuel selector had an unidentified fourth line. Further examination revealed a fourth fuel line along the sidewall which is capped behind the passenger seat. In addition, there is a fuel cap on the outside of the airframe in this area. It appeared that there was an auxiliary fuel tank installed at some point in time, but it has since been removed.
- The electric fuel pump, an automotive Facet 40106, was displaced from its mounting location
 - o It was heavily damaged, although it operated when power was provided.
- Air was blown through the fuel system from the wings to the engine to include the fuel tank vents.
 - o All lines were clear of debris and internal blockages
 - o Air was blown through the fuel line between the fuel pump outlet and inlet of the carburetor,
 - It was clear of debris
- Oil pressure screen was removed and clear of debris.

2.0 Examination Photos



Figure 1: Top Spark Plugs



Figure 2: Gascolator Bowl

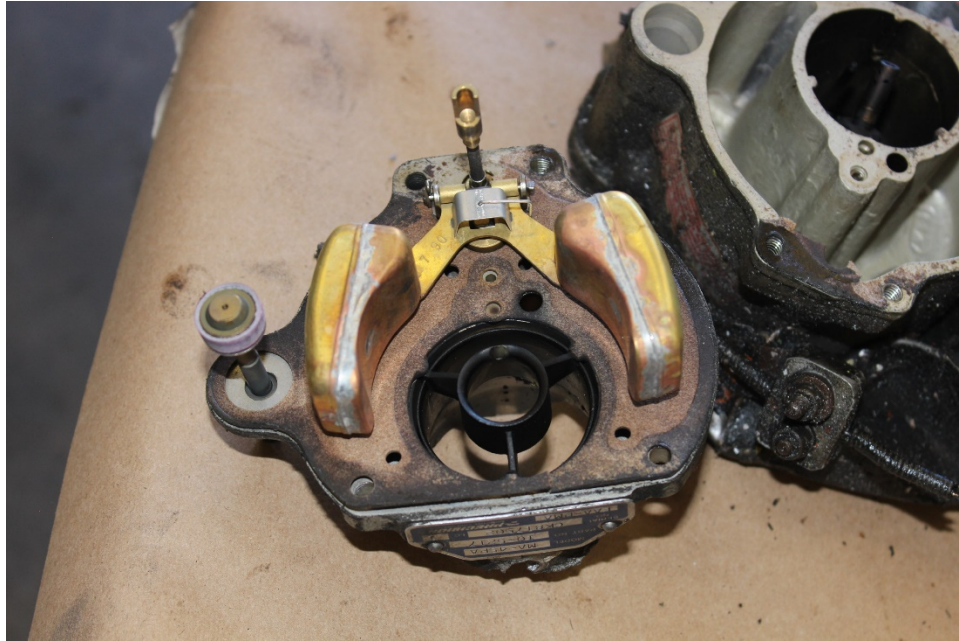


Figure 3: Carburetor Floats



Figure 4: Carburetor Bowl and Accelerator Pump Well

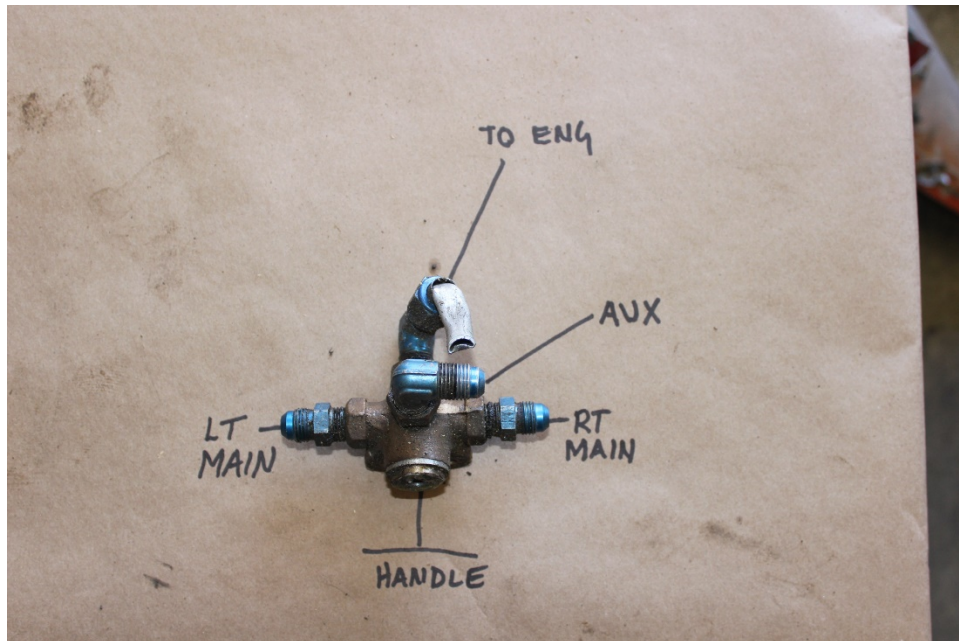


Figure 5: Fuel Selector

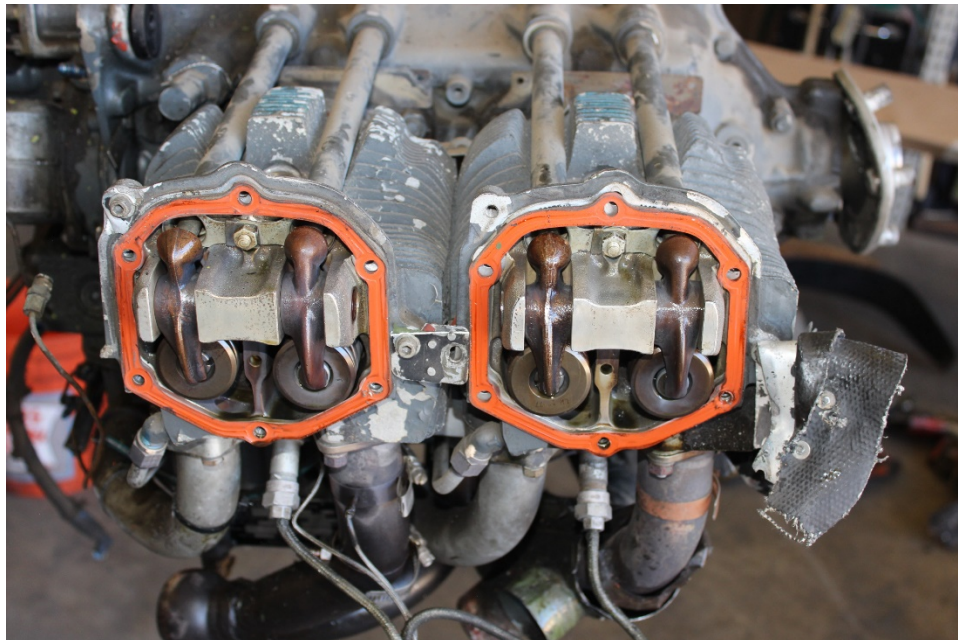


Figure 6: Right side of Engine

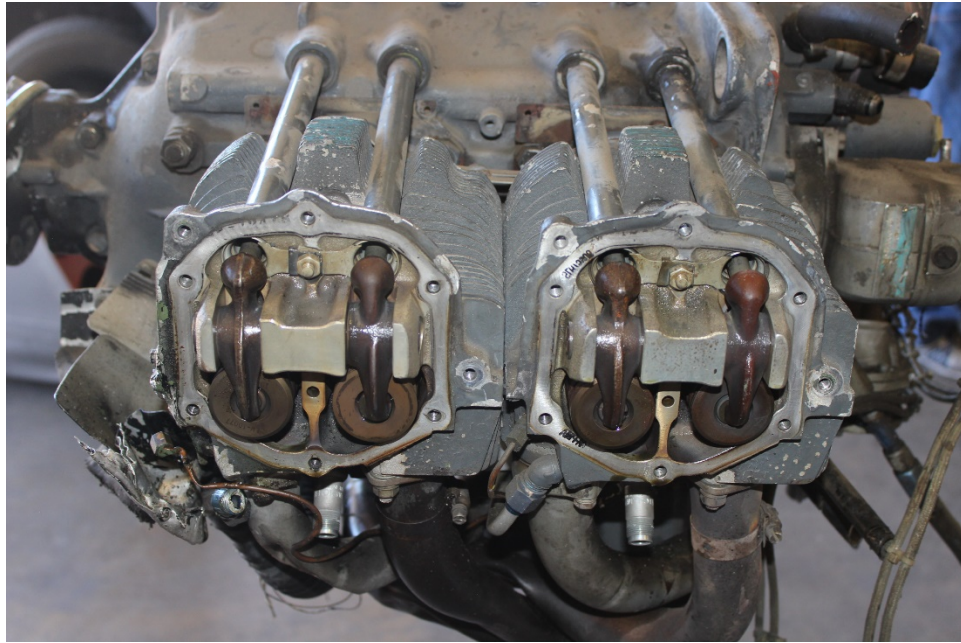


Figure 7: Left side of Engine

END.

Submitted by: Samantha Link