

# NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety Western Pacific Region

April 27, 2018

# COMPONENT EXAMINATION OBSERVATIONS

## WPR17LA202

This document contains 5 embedded photos.

#### A. ACCIDENT

Location: Roy, Utah

Date: September 12, 2017

Aircraft: Beechcraft A24R, Registration N9798L, Serial #MC-117

NTSB IIC: Samantha Link

#### **B.** EXAMINATION PARTICIPANTS:

Samantha Link Aviation Accident Investigator National Transportation Safety Board 505 South 336th Street, Suite 540 Federal Way, WA 98003

#### C. SUMMARY

Examination of the fuel distributor, the upper spark plug for the #4 Cylinder, fuel pump, one fuel injection line, and the fuel selector were conducted on April 27, 2018 at the National Transportation Safety Board Western Pacific Regional Office. No anomalies were noted during the examination.

#### D. DETAILS OF THE INVESTIGATION

#### 1.0 Examination

#### 1. Fuel Distributor

- The fuel distributor exhibited heavy thermal damage. It was disassembled prior to it being shipped and it was loosely secured together with two screws.
  - The screws were removed and there was only a spring. The diaphragm and metal plunger were missing.
    - The engine would be unable to run without these items.
- The unit was disassembled
  - Spring was malleable
  - Free of corrosion or abnormal debris
- The fuel line out puts were examined and clear of debris



Figure 1: Fuel Distributor

# 1. Fuel Injection Line

- o The fuel injection line exhibited a small section of corrosion, but no other visual anomalies were noted
- o Air was blown through the line and it was clear of debris.



**Figure 2: Fuel Injection Line** 

# 2. Upper Spark Plug for the #4 Cylinder

- o The spark plug was exhibited normal operational signatures when compared to the Champion Check-a-Plug Chart.
- o The electrodes were clear and evenly spaced
- o Some corrosion was noted on the outside of the spark plug and on the three outer most threads
  - No damage to electrodes.



Figure 3: Upper Spark Plug #4 Cylinder

## 3. Fuel Pump

- o The fuel pump exhibited heavy thermal discoloration and damage
- o The Fuel pump was manipulated by hand and moved freely
- o Fuel was noted at the engine attachment point
- Disassembly could not be completed due to damage; however, the casing was loosened and the internal spring appeared intact and fuel was noted throughout.



Figure 4: Fuel Pump

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# 4. Fuel Selector

- o The fuel selector sustained heavy thermal damage
- o The fuel selector handle operated smoothly and had obvious detents.
- o Air was blown through the fuel selector inlet and the handle was rotated between each position. Air was felt at the corresponding output.
  - The fuel selector was clear of debris



**Figure 5: Fuel Selector Valve** 

END.

Submitted by: Samantha Link