

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24LA137

FUEL INJECTION COMPONENT EXAM

May 6, 2024

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A. ACCIDENT

Location: Port Lavaca, Texas
Date: 3/16/24
Time: 1645 CST
Helicopter: N280WR 1977 Enstrom F280C

B. FUEL INJECTION COMPONENT EXAM

IIC	Zane Brown NTSB - Central Denver, CO
Party Member	David Harsanyi Lycoming Engines Williamsport, PA
Subject Matter Expert	Peter Nielson Precision Airmotive LLC Arlington, WA

C. SUMMARY

The fuel injection servo (Model: RSA-5AB1, Lucifer Parts List Number: 2524712-10 Serial Number: 720PRR01) was removed from the helicopter and subsequently examined and flow tested at the manufacturer's facility.

D. DETAILS OF THE EXAMINATION

1.1 Fuel/Fuel System

Investigators removed the fuel servo from its sealed shipping box and visually examined the servo noting that fuel testing ports were secured with safety that did not contain a tamper seal, as the idle linkage clevis was secured with a non-factory installed cotter pin (Figure 1). No other external anomalies were found.

Investigators then installed the servo onto a flow bench testing apparatus. The as removed idle setting was observed at 212 LBS/HR airflow and 30.4 LBS/HR fuel flow, or about a 7:1 air/fuel ratio.

The idle mixture linkage was then adjusted to about 4.5 full turns in (LEAN) and a complete flow test was performed, with all test points found to be within nominal ranges according to the manufacturer.

The fuel control was then removed from the flow bench and packaged for return to the helicopter.

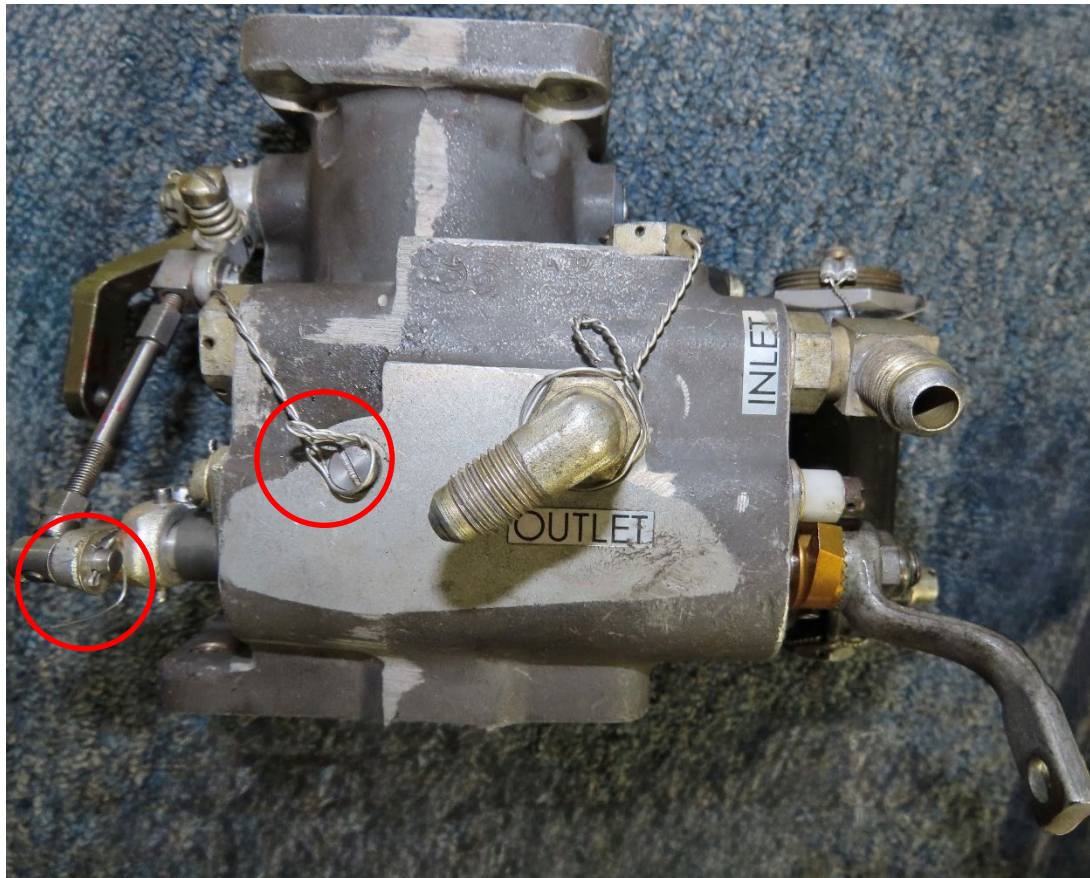


Figure 1 Fuel Servo as removed. Discrepancies noted by red circles.

Submitted by:

Zane Brown
Aviation Accident Investigator