



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

March 7, 2018

POWER TURBINE GOVERNOR EXAMINATION

WPR18LA029

This document contains 4 embedded photos.

A. ACCIDENT

Location: Rolling Fork, Mississippi
Date: November 7, 2017
Aircraft: Bell 206B, Registration N93PH, Serial #788
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

Lee Fisher
Product Integrity
Honeywell Aerospace
3520 Westmoor Street
South Bend, IN 46628

Greg Lafferty
Engineer
Honeywell Aerospace
3520 Westmoor Street
South Bend, IN 46628

Jon Michael
Manager, Air Safety Investigations
Rolls-Royce
5601 Fortune Circle S Drive, Suite D
Indianapolis, IN 46241

C. SUMMARY

Examination of the power turbine governor was conducted on March 7, 2018 at the facilities of Honeywell Aerospace in South Bend, Indiana. No anomalies were noted during the examination.

D. DETAILS OF THE INVESTIGATION

1.0 Operational Test

- Power turbine governor Serial #16917
 - This particular unit was about 35 years old. It has no evidence of maintenance configuration improvements or an overhaul
 - Overhaul occurs at 2,000 hours
 - Maintenance log revealed the unit was installed onto the helicopter on September 13, 2017 with a total of about 627 hours.
 - The unit flew about 161 hours while installed onto the accident helicopter
- An initial visual inspection was conducted on the unit and no anomalies were noted

- The collective lever moved smoothly from stop to stop, however, it did have a very small friction area at about the 74-degree mark.
- The unit was prepped for an operational run on a test bench before it was installed onto the test bench.
- The power turbine governor was tested to full ATP specifications
 - It ran normally with no anomalies noted
- The power turbine governor was removed for teardown.

2.0 Teardown Examination

- The drive body cover was removed
 - The fly weight was manipulated by hand it rotated smoothly with no binding.
- The throttle shaft rotated smoothly
- The speed spool bearing rotated normally and the bearing movement over the Teflon post was consistent with normal.
 - The Teflon tube exhibited some signs of wear.
- The cam follower lever rotated freely with the exception of a slight bind.
 - Not enough of a bind for the pilot to feel in the collective control
- The flyweight shoes exhibited some wear and corrosion on the flyweight shoes, which is considered normal wear.

3.0 Photos



Figure 1: Power Turbine Governor

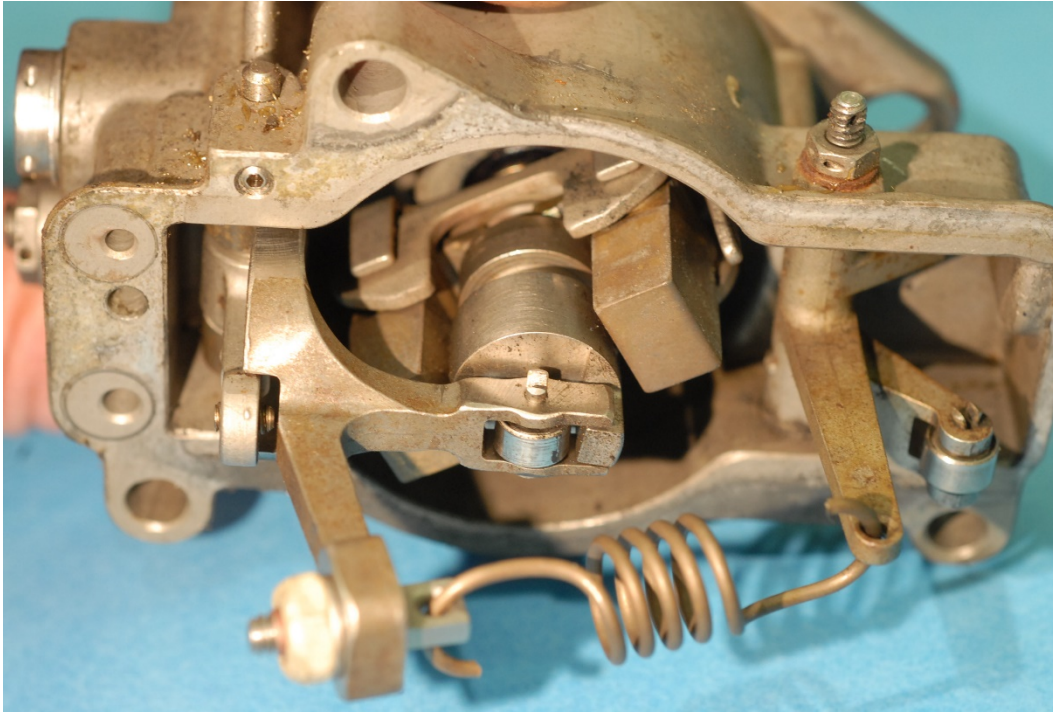


Figure 2: Drive Body

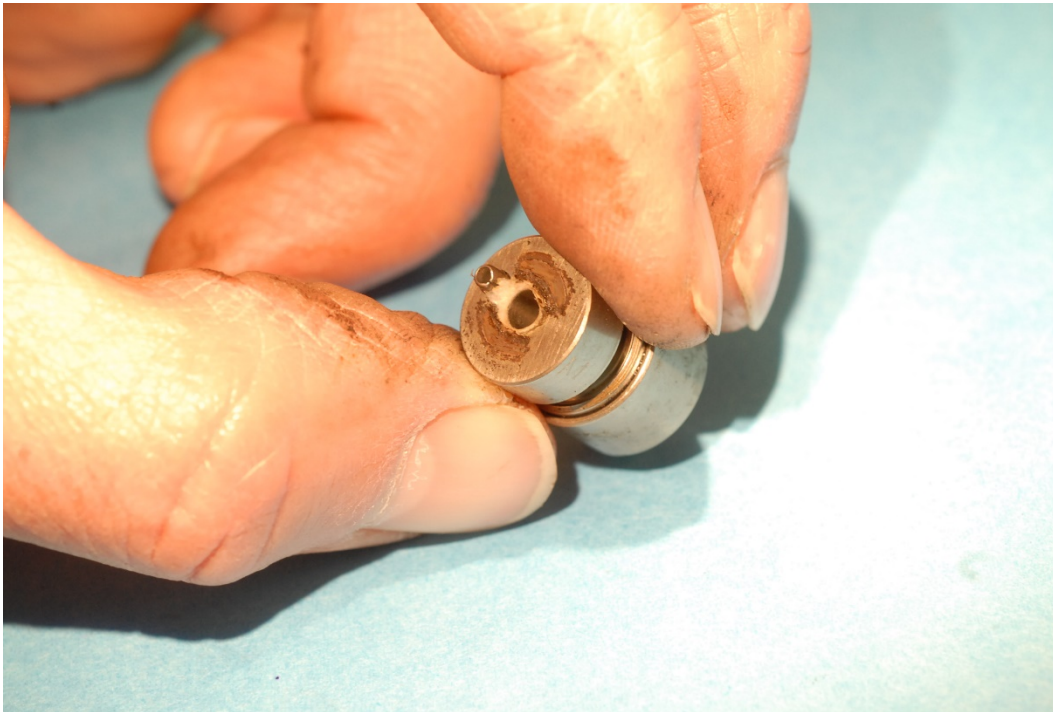


Figure 3: Spool Bearing Assembly

END.

Submitted by: Samantha Link