

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24LA303

EXAMINATION SUMMARY

December 17, 2024

TABLE OF CONTENTS

A. ACCIDENT.....	3
B. EXAMINATION SUMMARY	3
C. SUMMARY	3
1.0 GOVERNOR SYSTEM EXAMINATION	3

A. ACCIDENT

Location: Bryant, Iowa
Date: August 3, 2024
Time: 1415 central daylight time
Helicopter: Robinson R44, N225ML

B. EXAMINATION SUMMARY

IIC	Brian Rutt NTSB Aurora, Colorado
Party Member	Thom Webster Robinson Helicopter Company Torrance, California

C. SUMMARY

1.0 Governor System Examination

The governor system was shipped to Robinson Helicopter Company in Torrance, California for testing. The governor system components tested consisted of the governor controller, governor motor, and the engine right magneto.

The governor system components were attached to a test bench. The magneto was tested at various speeds with no anomalies noted. The coming in speed was below 500 rpm for the magneto. The tachometer wires in the magneto had a protective tubing installed. The wires were improperly routed through the points compartment as shown in figure 1. Electrical continuity was verified with the points closed and continuity was broken when the points were open. Although the wires were improperly routed, no damage was found to the wires and functioned normally when tested. The point gap was measured at .020 in. The specification for the point gap is .019 in +/- .003.

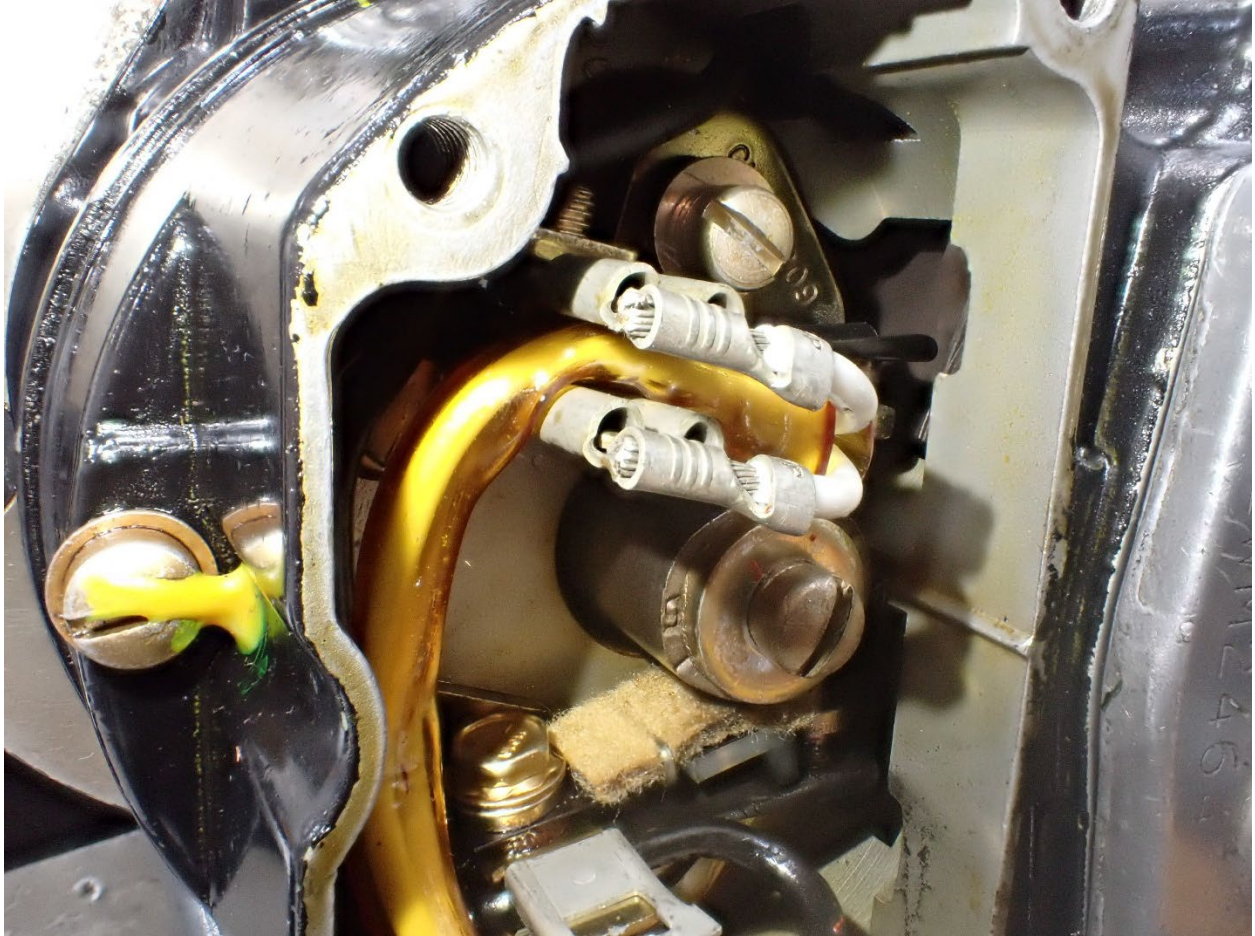


Figure 1. Tachometer wires inside magneto points compartment.

The governor controller was isolated and tested and no anomalies were found. The governor motor was isolated and tested with no anomalies found. Next, all three components were tested together. The rpm was set to below 80 percent power and the governor controller functioned normally. The rpms were brought above 80 percent power, and the governor controller began sending a command to actuate the governor motor in the direction of opening the throttle. Rpm was increased to 103 percent power and the governor motor stabilized. Rpm was increased to 114 percent power and the governor motor moved in the direction of closed throttle. Rpm was increased to 116 percent power and the governor motor stopped moving. The rpm was set at about 90 percent, and the magneto tachometer wire connection was disconnected. The governor motor stopped. No failures or malfunctions with the governor system were found.

Submitted by:

Brian Rutt
NTSB