

CUSTOMER HONEYWELL ENGINES & SYSTEMS			INVESTIGATION NO 1180359
CUSTOMER ORDER Crash Investigation	WOODWARD SALES ORDER 3815591		WOODWARD WORK ORDER B529325
CUSTOMER REJECTION DOCUMENT (CAR,QN RFA DMR,ETC.) N/A	WARRANTY DISPOSITION N/A		PRODUCT STATUS 1 RCVD
PROGRAM/ENGINE TYPE GARRETT SMALL PROP GOVERNOR		ITEM RECEIVED 210736	ENGINE MFR. MODEL RECEIVED N/A
PROGRAM CODE 83344 SML	SERIAL NUMBER 1110432	ITEM SHIPPED 210736	ENGINE MFR. MODEL SHIPPED 869120-9
PARENT ITEM NUMBER 210736	PARENT ITEM SERIAL NUMBER 1110432	FIRST SHIPPED 24-MAY-1978	LAST SHIPPED 24-MAY-1978
CUSTOMER SERIAL NUMBER N/A	APPLICATION N/A	VESSEL TYPE & VESSEL NUMBER N/A N/A	SITE & LOCATION GRID ID N/A N/A
TIME/CYCLES SINCE NEW, OVERHAUL, OR REPAIR			
DATE REPORT OPENED 03-AUG-2022		DATE PART REMOVED N/A	DATE RECEIVED 19-JUL-2022

TEAM MEMBERS (D1)

Product Engineer: NATHAN BOGDONAS
Customer QA Engineer: Jean Taylor
Tech Advisor/Reviewer: David M. Kettle
Compliance: Robert A. Feggestad

Customer Account Manager: Charles J. Johnson
Customer Service Rep: SHANNON L. COTE
Product Integrity Coordinator: James D. Rosplack

REASON FOR INVESTIGATION (D2)

Reported Issue: On July 30, 2021, about 1423 Pacific daylight time, a Grumman G-164B airplane, N3629F, was substantially damaged when it was involved in an accident near Tracy, California. The pilot was not injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 137 aerial application flight. The pilot reported that he was just beginning his 8th pass over a hay field that was located beneath high- tension power lines. He planned to repeat his previous passes by flying south below the high-tension power lines, which ran diagonally across the field (northeast to southwest) and the flight path. When the pilot was about midfield, he experienced a total loss of engine power accompanied by a vibration. The pilot stated that his airspeed was about 130 mph at the time of the power loss, but it decayed rapidly. He was unable to enter a climb due to the power lines located overhead. The pilot flew about 10-15 ft above ground level under another set of power lines at the south end of the field to an adjacent field. He then began a shallow right turn to orient the airplane parallel to a series of raised dirt beds. However, during the turn the airplane contacted the ground and several trees. Photographs showed substantial damage to the fuselage and wings. The wreckage was retained for further examination.

CONTAINMENT/IMMEDIATE ACTIONS (D3)
INVESTIGATION SUMMARY (D4)

Confirmation Text: DID NOT CONFIRM REASON FOR INVESTIGATION/RETURN

Discrepant Item Number: NA

Discrepancy: No Discrepancy Found

Finding: No Findings

Conclusion:

The unit was received and an as received visual inspection was conducted. During the inspection it was noted that the lockwire was foreign indicating the unit had been disturbed after leaving the Woodward facility. Additionally, there were no signs of damage to the unit that would have prevented running an As Received Test.

After the visual assessment, the unit was sent for an as received test. All test points were found within limits except the following.

¿Maximum RPM¿ was out of limits high at 3939 rpm
(Limits: 3574 +/- 10 rpm)

¿Minimum RPM¿ was out of limits high at 3607 rpm (Limits: 2815 +/-10 rpm)

¿Arm Travel ¿ Max to Min¿ was out of limits low at 24 degrees (Limits: 60 +/- 5 degrees)

The shift in the test data and non-Woodward lockwire suggests that these settings were adjusted in the field.

The shift in the test data and non-Woodward lockwire suggest that these three settings were adjusted in the field.

Following the test, the unit was disassembled. There were no anomalies

with any of the hardware. In summary, the unit had evidence of being adjusted in the field resulting in the out of tolerance condition during testing. However, even with those adjustments all indications from testing suggest that the unit was functioning properly.

ROOT CAUSE (D4)

Origin of Cause: FIELD / END CUSTOMER (OWNER)
General Cause: No Problem Found
Cause: No Problem Found or Identified
Cause Notes:

CORRECTIVE ACTION PLAN (D5)

General Corrective Action: No Action without Additional Customer Input
Specific Corrective Action: No Direct Action, Continue to Monitor
Corrective Action:

CORRECTIVE ACTION IMPLEMENTATION (D6)

Corrective Action Status: NO ACTION