

Case # CEN22LA010

N5585P - PA-24 - O-360

Woodward / Ontic Engineering governor PN 210305 rev E, SN 866254

Mike Folkerts

National Transportation Safety Board

[REDACTED]

attendees for the test of subject governor

Brian McAmis

Aviation Safety Inspector

Denver FSDO

[REDACTED]

Mark Longtin

Aviation Safety Inspector

Denver FSDO

[REDACTED]

Dave Hampel and Byron Terry at Rocky Mountain Propellers, Inc., tested a Woodward / Ontic Engineering governor part number 210305 serial number 86625. The governor was tested in accordance with manufacture specification manual 33002B. During the test the following items were checked:

Max RPM setting along with pressure relief, minimum RPM, control arm angle and control arm travel were within specifications. (See attached test report). This governor was functioning to manufacture specifications at the time of the test.

If you have any questions please let me know.

*Professional Expert for Aviation Propellers and Governors*

*Dave Hampel*

[REDACTED]

[REDACTED]



## RECEIVING IN REPORT GOVERNOR

Form # Receiving - Governor

Revision 18

April 14, 2016

Work Order # \_\_\_\_\_

Date received 10 MAR 20 Completion Date \_\_\_\_\_  
Incoming Shipping Method \_\_\_\_\_

## Customer Information

Repair Order # \_\_\_\_\_ Contact \_\_\_\_\_  
Name NTTB Phone \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Aircraft Information

Registration N # 5585P Engine Serial: ESN: \_\_\_\_\_  
Aircraft Model PA24 TSO \_\_\_\_\_  
Engine Design D-360 Date of Install \_\_\_\_\_Incoming Model Number 210305  
Outgoing Model Number 210305  
Change Letter Incoming E Outgoing W  
Serial Number 866254  
Solenoid #1 Model # \_\_\_\_\_ resistance \_\_\_\_\_  
Solenoid #1 Serial # \_\_\_\_\_  
Solenoid #2 Model # \_\_\_\_\_ resistance \_\_\_\_\_  
Solenoid #2 Serial # \_\_\_\_\_  
Magnetic Pick Up \_\_\_\_\_ resistance \_\_\_\_\_  
Synchronizing Coil \_\_\_\_\_ continuity \_\_\_\_\_  
P / Y Fitting \_\_\_\_\_  
Feather Drain Fitting \_\_\_\_\_  
Shipping Kit NO

## Core Receipt Checklist (circle one):

Beta Plunger	Scrap	Srv
Beta Cap	Scrap	Srv
Solenoid #1	Scrap	Srv
Solenoid #2	Scrap	Srv
Coil	Scrap	Srv
Mag Pickup	Scrap	Srv
Body Mod Req	Yes	No
Cap Bushing Req	Yes	No

Work to be accomplished BENCH TEST  
If BENCH TEST, state reason \_\_\_\_\_  
Other notes \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_Date stamp of last overhaul 09/19 Last overhaul by \_\_\_\_\_  
Maintenance release copy? Yes/No

Required information if unit is NOT in for OVERHAUL:

Date of Installation \_\_\_\_\_  
Time since last overhaul \_\_\_\_\_  
Was there metal contamination Yes / No  
Was there a foreign object strike Yes / No

OVER FOR PROP \_\_\_\_\_

INSPECTOR'S INITIALS \_\_\_\_\_



# MAIN INFORMATION FORM

33002B

Woodward / Ontic Piston Governors

Traveler Number: 33002B - Main

Traveler Rev: 1

Traveler Rev Date: 29 Sep 2016

Customer : \_\_\_\_\_

Work Order # 22-50972

Date : 10 Mar 2022

TSN

TSO

Model Number : 210305

unk

210305

Serial Number : 866254

866254

Change Letter In : \_\_\_\_\_

Out : \_\_\_\_\_

Initials

Date

## WORK TO BE ACCOMPLISHED:

Bench Test

Tech \_\_\_\_\_

Inspector \_\_\_\_\_

Ready to Quote \_\_\_\_\_

## NOTES & DISPOSITION:

TEST GOVERNOR IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS

## WORK ACCOMPLISHED

SEE ATTACHED

Complied with AD's thru \_\_\_\_\_

Complied with SB's thru \_\_\_\_\_

Complied with SL's thru \_\_\_\_\_

Overhaul Due \_\_\_\_\_ Hours if unit is operated 120 hours per year continuously

## FINAL INSPECTION:

Final Inspector \_\_\_\_\_

Date

10 Mar 2022



# GOVERNOR CALIBRATION

33002B

Woodward / Ontic Piston Governors

Manual 33002B Rev. Dated Jan 87

Traveler Number: 33002B - Calibration

Traveler\_Rev #: 1

Traveler Rev Date: 29 Sep 2016

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Work Order 22-50972

Item	Description of Operation
Relief valve pressure at 1750 RPM	50 psi input pressure <u>270 ± 10</u> <u>280</u>
Pump capacity	150 psi output pressure - qts per minute <u>5.0 gpm min</u> <u>5.8</u>
High RPM speed setting	<u>2340 ± 100</u> <u>2330</u>
Control arm angle setting	<u>280° ± 5°</u> <u>280°</u>
Total control arm travel	<u>72° ± 5°</u> <u>83°</u>
Feather RPM	<u>1375 ± 25</u> <u>1295</u>
Un-feather RPM	<u>N/A</u> <u>N/A</u>
Magnetic pickup	test at RPM <u>N/A</u> <u>N/A</u>
Voltage output	<u>N/A</u> <u>N/A</u>
Electrical speed change	test at <u>N/A</u> RPM for <u>N/A</u> RPM change <u>N/A</u>
Minimum RPM	<u>N/A</u> <u>N/A</u>
Check for external leaks	<u>NONE</u>
Hardware torque check and safety	

Assembler / Technician

Date

10 MAR 2022

Inspector

Date

10 MAR 2022