





**Million Air Houston**

8703 Telephone Rd  
Houston, TX 77061

Shop Order: SO-02614

Opened: 7/07/2015

Closed:

Sold To: AIRCCS LLC

Houston, TX 77041-7112 United States

**Aircraft Number: N422PB      Type:SR22      S/N: 2379**

Eng#	Type	S/N	Time	Cycles	Prop Type	Prop S/N	Prop Time
1							



**Million Air Houston**

8703 Telephone Rd  
Houston, TX 77061

**Discrepancy: 1**

External Reference: N422PB

**DISCREPANCY:**

Customer requests removal of prop governor to be repaired by outside vendor.

**RETURN TO SERVICE:**

Date 07/06 A/C Time UNK A/C Ldgs UNK S.O. 2614 The maintenance operations described above were completed and, with respect to the work performed, the aircraft and/or component is approved for return to service for discrepant items 1.

A&P: [Redacted]

**RESOLUTION:**

Removed prop governor PN: C290 SN: 061575 and delivered to customer as requested.

Received prop governor from PN: C290 SN: 061575 R&D Propeller who said there was no problem with the governor. Reinstalled governor. Performed engine runs with no leaks detected and engine reached power at 2650 RPM. No other defects noted. Work performed with reference to Cirrus SR-22 AMM Revision 28-20 dated 05/28/15 Chap: 61-20. 07/06/15 DDD.

Date Completed:  
07/06/15

SIGNED OFF BY:  
[Signature]

INSPECTED BY:  
[Redacted]



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8703 Telephone Rd  
Houston, TX 77061

Totals:	
SubTotal:	\$
Charges:	\$

N422PB CIRRUS SR22 SN: 2379 TT: UNK CYC: UNK SO: 2614 07/06/15

1. REMOVED PROP GOVENOR PN: C290 SN: 061575 AND DELIVERED TO CUSTOMER PER CUSTOMR'S REQUEST.
2. REINSTALLED CUSTOMER SUPPLIED REPAIRED PROP GOVERNOR FROM R&D PROPELLER SERVICE WORK ORDER # 15699. PN: C290 SN: 061575. PERFORMED ENGINE RUNS AND LEAK CHECKS WITH NO DEFECTS NOTED AND ENGINE REACHING RPM OF 2650. WORK PERFORMED WITH REFERENCE TO CIRRUS SR22 AMM REVISION 28-20 DATED 05/28/15 CHAP 61-20.

WITH REGARDS TO THE WORK PERFORMED THIS AIRCRAFT IS APPROVED FOR RETURN TO SERVICE. DETAILS ON FILE UNDER SO 02614.

  
[REDACTED]  
DAN DERRYBERRY  
[REDACTED]

1. Approving Civil Aviation Authority / Country: FAA/UNITED STATES		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: 15699	
4. Organization Name and Address: R&D PROPELLER SERVICE, LLC 2528 Hatfield Road - Pearland, Texas 77581				5. Work Order/Contract/Invoice No. 15699		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:	
I	Governor	C290D3R/T23	1	061575	REPAIRED	
12. Remarks: Repaired IAW McCauley Manual 780401, SPM100 Flush and Bench Test Repair Leak between Body and Base Max RPM 2700 Min RPM 1350 Relief Valve press 290 Pump Capacity 5						
13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.				14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 12 Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.		
13b. Authorized Signature:		13c. Approval/Authorization No.:	14b. Authorized Signature:		[Redacted]	
13d. Name (Typed or Printed):		13e. Date (dd/mmm/yyyy): 00/00/00	14d. Name (Typed or Printed): Carl D. Swartz		14e. Date (dd/mmm/yyyy): 02/JUL/2015	
<b>User/Installer Responsibilities</b>						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

1. Approving Civil Aviation Authority / Country: **FAA/UNITED STATES**      2. **AUTHORIZED RELEASE CERTIFICATE**      3. Form Tracking Number: **15699**  
FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG

4. Organization Name and Address: **R&D PROPELLER SERVICE, LLC**      5. Work Order/Contract/Invoice No. **15699**  
**2528 Hatfield Road - Pearland, Texas 77581**

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:
1	Governor	C290D3R/T23	1	061575	REPAIRED

12. Remarks:  
 Repaired IAW McCauley Manual 780401, SPM100  
 Flush and Bench Test  
 Repair Leak between Body and Base  
 Max RPM 2700  
 Min RPM 1350  
 Relief Valve press 290  
 Pump Capacity 5

13a. Certifies the items identified above were manufactured in conformity to:  
 Approved design data and are in a condition for safe operation.  
 Non-approved design data specified in Block 12.

14a.  14 CFR 43.9 Return to Service       Other regulation specified in Block 12  
 Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

13b. Authorized Signature: \_\_\_\_\_      13c. Approval/Authorization No.: \_\_\_\_\_      14b. Authorized Signature: **Carl D. Swartz**      14c. Approval/Certificate No.: **CRS [REDACTED]**

13d. Name (Typed or Printed): \_\_\_\_\_      13e. Date (dd/mmm/yyyy): **00/00/00**      14d. Name (Typed or Printed): **Carl D. Swartz**      14e. Date (dd/mmm/yyyy): **02/JUL/2015**

**User/Installer Responsibilities**

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## PROPELLER CONTROL

### 1. GENERAL

The propeller governor is an engine RPM sensing device and high pressure oil pump. Pressurized engine oil is directed to the propeller hydraulic cylinder or released from the hydraulic cylinder in response to engine RPM change. Change in oil volume in the hydraulic cylinder changes the blade angle and returns the propeller system RPM to the value set by the cockpit throttle/propeller control. The governor is mounted on the lower left forward portion of the engine crankcase.



**2. MAINTENANCE PRACTICES**

**A. Propeller Governor (See Figure 61-201)**

- (1) Removal - Propeller Governor
  - (a) Remove engine cowling. (Refer to 71-10)
  - (b) Remove cotter pin, nut, washers, and bolt securing control cable rod end to governor control arm.
  - (c) Place a drain pan beneath governor to catch oil spillage.
  - (d) Remove nuts and washers securing governor to studs on governor mounting pad.
  - (e) Remove and discard gasket.
- (2) Installation - Propeller Governor
  - (a) Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Engine oil.	-	Any Source	Lubrication.

- (b) Lubricate governor shaft spines with engine oil.
- (c) Install new gasket over studs on governor mounting pad.
- (d) Position governor over studs on governor mounting pad and secure with washers and nuts. Torque nuts to 155 - 175 in-lb (17.5 - 19.7 Nm).
- (e) Install bolt, washers, nut, and cotter pin securing control cable rod end to governor control arm.
- (f) Install engine cowling. (Refer to 71-10)
- (3) Adjustment/Test - Governor Rigging and Low-Pitch Stop Adjustment
  - (a) Remove engine cowling. (Refer to 71-10)
  - (b) Perform Adjustment/Test - Throttle Control Cable. (Refer to 76-10)
  - (c) Perform Adjustment/Test - Mixture Control Cable. (Refer to 76-10)
  - (d) Adjust governor control cable jam nuts so power control lever in the full forward position causes governor control arm to make contact with governor low pitch control arm stop.
  - (e) Ensure power control lever has positive clearance to console slot in both full forward and full aft positions.

**CAUTION:** Engine starting and shut-down may only be performed by authorized personnel.

- (f) Start and warm up engine. (Refer to Pilot's Operating Handbook, Section 4)

**Note:** Due to lower loads on the engine during flight, engine RPM should be set to approximately 2650 during ground static adjustments to ensure engine output of 2700 RPM during flight conditions.

- (g) With power lever full forward, verify tachometer reads 2650 RPM.
- (h) If engine tachometer does not read 2650 RPM, shut down engine, and adjust the low pitch/high RPM screw on the governor.
  - 1 Remove safety wire from adjustment screw.

**Note:** One revolution of the adjustment screw will increase or decrease engine speed approximately 25 - 30 RPM.

- 2 Loosen adjustment screw locknut and turn screw in clockwise direction to decrease engine speed or in counterclockwise direction to increase engine speed.
- 3 Tighten adjustment screw locknut.

**CAUTION:** Engine starting and shut-down may only be performed by authorized personnel.

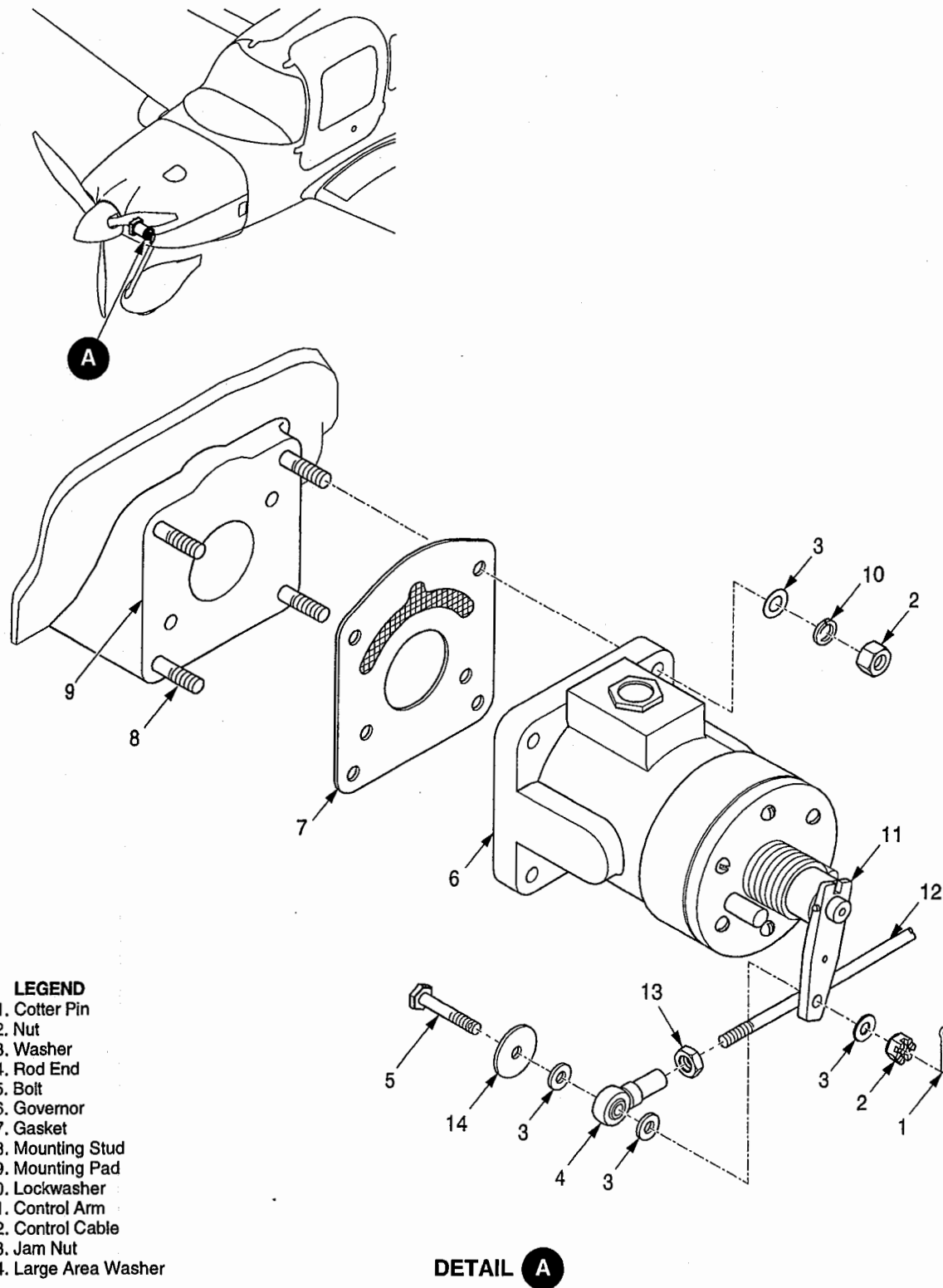
- 4 Start and warm up engine. (Refer to Pilot's Operating Handbook, Section 4)
  - 5 With power lever full forward, verify tachometer reads 2650 RPM.
  - 6 If engine tachometer does not read 2650 RPM, shut down engine, and repeat adjustment.
  - 7 When correctly adjusted, shut down engine, and safety wire adjustment screw locknut.
- (i) Tighten governor control cable jam nuts. Verify minimum rod-end thread engagement of 0.312 inch (0.79 cm).
  - (j) Install engine cowling. (Refer to 71-10)
- (4) Functional Test - Engine Cruise RPM

**WARNING:** Test flight may only be performed by authorized personnel.

- (a) Conduct test flight.
  - 1 With power lever full forward, verify tachometer reads 2700 RPM.
  - 2 With power lever at cruise setting, verify tachometer reads 2500 - 2525 RPM.
- (b) If unable to obtain 2700 RPM at full power, perform Adjustment/Test - Governor Rigging and Low-Pitch Stop Adjustment. (Refer to 61-20)
- (c) If unable to obtain 2500 - 2525 RPM at cruise setting, perform the following steps:
  - 1 Remove engine cowling. (Refer to 71-10)

**Note:** One thread on governor control cable push rod measures 0.0313 inch (0.7950 mm) and equals approximately 20 RPM.

- 2 At control quadrant, adjust governor control cable rod end so governor control arm moves off of low pitch stop the distance required to obtain increase in cruise RPM. For example, to gain 20 RPM, shorten rod end one revolution until a 0.0313 inch (0.7950 mm) gap exists between governor control arm and low pitch stop.
- 3 At governor, adjust governor control cable rod end until governor control arm contacts low pitch stop. Verify minimum rod end thread engagement of 0.312 in (0.79 cm).
- 4 At throttle body, adjust throttle control cable rod end until throttle body control arm contacts full forward stop. Verify minimum rod end thread engagement of 0.312 in (0.79 cm).
- 5 In full forward and full aft positions, ensure power lever has positive clearance with slot in engine control panel.
- 6 Install engine cowling. (Refer to 71-10)
- 7 Conduct test flight.



SR20\_MM61\_1812

**Figure 61-201**  
**Governor Installation**



**Million Air Houston**  
 8703 Telephone Road  
 Houston, TX 77061  
 (713) 643-6300 FAX (713) 643-8767

**INVOICE: SO-02614**

Opened: 7/07/2015  
 Closed: 7/31/2015

Sold To: AIRCCS LLC  
 [Redacted]  
 Houston, TX 77041-7112 United States

Ship To: AIRCCS LLC

<b>Aircraft Number:</b>	<b>N422PB</b>	<b>Type:SR22</b>	<b>S/N: 2379</b>
<b>Eng#</b>	<b>Type</b>	<b>S/N</b>	<b>Time Cycles Prop Type Prop S/N Prop Time</b>
1			

**Discrepancy: 1**

**DISCREPANCY::**

Customer requests removal of prop governor to be repaired by outside vendor.

**RESOLUTION::**

Removed prop governor PN: C290 SN: 061575 and delivered to customer as requested.

Received prop governor from PN: C290 SN: 061575 R&D Propeller who said there was no problem with the governor. Reinstalled governor. Performed engine runs with no leaks detected and engine reached power at 2650 RPM. No other defects noted. Work performed with reference to Cirrus SR-22 AMM Revision 28-20 dated 05/28/15 Chap: 61-20. 07/06/15 DDD.

Charges This Item:	5.00 Hours @ 110.00	\$ 550.00
	Total For This Discrepancy:	\$ 550.00

<b>Miscellaneous Charges:</b>	Hazmat/Consumables/P:	\$ 15.40
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<b>Summary:</b>	Hazmat/Consumables/P:	\$ 15.40	Total Labor - 5.00 Hours:	\$ 550.00
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<b>Totals:</b>	<b>SubTotal:</b>	\$ 565.40
	<b>Total Charges:</b>	\$ 565.40
	<b>Amount Remaining:</b>	\$ 565.40

Terms: Prior to departure