April 21, 1970

SUBJECT: PROPELLER GOVERNOR IMPROVEMENT
(McCauley Service Letter No. 69-8
and Service Bulletin No. 73)

MODELS AFFECTED: Refer to Chart

Attached for your service information are copies of the subject McCauley publications concerning a propeller governor flyweight pin improvement and replacement.

This change became effective on production in approximately mid-year 1969 and improved governors can be identified by a second "C" appearing in the model designation. (Example: C29002-"C"/Txx)

Complete details regarding in-service governor models affected, parts, instructions and compliance required are contained in the McCauley Service Letter and Bulletin.

Note: Compliance -- McCauley Service Letter No. 69-8 recommends incorporation of the governor improvements at overhaul or when disassembly is required.

Service Bulletin No. 73 affects the Reims Rocket only and requires the installation of the new flyweight pin within the next one hundred hours time in service.

The following chart calls out aircraft year models on which affected propeller governors were installed as original equipment.

Note: Aircraft prior to these models may also have an affected governor installed if original equipment has been replaced in the field.

Continued.....
<table>
<thead>
<tr>
<th>Aircraft Model</th>
<th>Year</th>
<th>Cessna Part Number Propeller Governor</th>
</tr>
</thead>
<tbody>
<tr>
<td>180 and Skywagon 180</td>
<td>1966 and on</td>
<td>C161030-0102</td>
</tr>
<tr>
<td>182/Skylane</td>
<td>1966 and on</td>
<td>C161030-0102</td>
</tr>
<tr>
<td>185 Skywagon and Skywagon 185</td>
<td>1969 and on</td>
<td>C161030-0107</td>
</tr>
<tr>
<td>Agwagon (230 H.P. with Constant Speed Propeller)</td>
<td>1966 and on</td>
<td>C161030-0102</td>
</tr>
<tr>
<td>Agwagon (300 H.P.)</td>
<td>1966 and on</td>
<td>C161030-0107</td>
</tr>
<tr>
<td>Super Skywagon and Skywagon 206</td>
<td>1966 and on</td>
<td>C161030-0104 (Standard)</td>
</tr>
<tr>
<td>(Standard and Turbo)</td>
<td></td>
<td>C161030-0103 (Turbo)</td>
</tr>
<tr>
<td>Super Skylane</td>
<td>1966 and on</td>
<td>C161030-0105 (Standard)</td>
</tr>
<tr>
<td>(Standard and Turbo)</td>
<td></td>
<td>C161030-0103 (Turbo)</td>
</tr>
<tr>
<td>Skywagon 207</td>
<td>1969</td>
<td>C161030-0104 (Standard)</td>
</tr>
<tr>
<td>(Standard and Turbo)</td>
<td></td>
<td>C161030-0103 (Turbo)</td>
</tr>
<tr>
<td>210 Centurion</td>
<td>1966 and on</td>
<td>C161030-0105</td>
</tr>
<tr>
<td>Turbo-System Centurion</td>
<td>1966 and on</td>
<td>C161030-0103</td>
</tr>
<tr>
<td>Reims Rocket</td>
<td>1968 and 1969</td>
<td>C161030-0106</td>
</tr>
</tbody>
</table>

Required parts are available through the Cessna Dealer Organization. Part numbers and list prices are shown in the McCauley letter and bulletin.

(Owner Notification System – No. 1)

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ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

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THE CESSNA AIRCRAFT COMPANY

SUBJECT: Governor Flyweight Pin Improvement and Replacement

GOVERNOR MODELS AFFECTED: C290D2-A/T1, T2, T3, Th, T5, T9, T11, and T13; and C290D2-B/T1, T2, T3, Th, T5, T9, T11, and T13.


CONDITION AND CORRECTION:

1) A new A-2008l-D flyweight and drive disc assembly is being used in C290D2-C/TX governors. The A-2008l-D assembly is an improved unit which replaces the old A-2008l-B and -C assemblies. The basic improvement in this assembly is the A-20070-B flyweight pin which replaces A-20070-A. This improvement was initiated to correct a problem on aircraft not affected by this service letter. The basic problem was broken cotter pins in the flyweight and drive disc assembly, which could cause an overspeed condition and prevent the governor from controlling the propeller. To correct this, the improved flyweight pin and attachment was developed and is now available. The affected governor models shall be corrected at overhaul or whenever disassembly is required (as for repair or servicing).

PROCEDURES AND IDENTIFICATION:

1) The following procedure (see Figs. 1 to 4) covers the correction for the above condition only. For overhaul, repair, and further assembly and disassembly requirements, see McCauley Service Manual No. 661215.

   a) Scribe a line on the outer diameter of the governor cover (20, Fig. 1) and body (39) so that parts may be reinstalled later in exactly the same position.

   b) Remove lockwire from cover screws (h) and remove screws.

   c) Pull the control head assembly (6 to 20) from the governor, being careful that bearing race (6) and thrust bearing (7) do not drop from pilot spool (10). Set these parts aside where they will not be damaged or contaminated.

   d) Carefully remove drive disc and flyweight assembly (21 to 25, Fig. 1 or 3). (Continued)
PROCEDURE AND IDENTIFICATION (Continued)

e) For C290D2 or C290D2-A models, remove drive disc cap (21, Fig. 3); and for C290D2-B model, remove cotter pins (21, Fig. 1). Remove flyweight pins (25, Fig. 1 or 3) from assembly.

2) There are three different drive disc and flyweight assemblies installed in the affected governors. All C290D2-B/TX model governors and those C290D2/TX, and C290D2-A/TX governors that have been modified in accordance with McCauley Service Letter of January 1968 will have A-2008lu-B or -C assemblies (21 to 25, Fig. 1) installed, and will require only new flyweight pins, nuts, and washers to effect this improvement. The remaining C290D2/TX and C290D2-A/TX governors have A-2008lu assemblies (21 to 25, Fig. 3) installed and will require, in addition, a new drive disc.

The following is a list of obsolete parts in the 3 different drive disc and flyweight assemblies and the new parts required to convert these assemblies to the A-2008lu-D assembly.

<table>
<thead>
<tr>
<th>OBsolete Parts</th>
<th>New Parts Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-2008lu Assembly</td>
<td>(Convert A-2003lu)</td>
</tr>
<tr>
<td>(Figure 3)</td>
<td>Kit Part No. PL-20200</td>
</tr>
<tr>
<td></td>
<td>(Figure 2)</td>
</tr>
<tr>
<td>1 ea. A-20060 Drive Disc Pin (21)</td>
<td>2 ea. A-20070-B Flyweight Pin (25)</td>
</tr>
<tr>
<td>1 ea. A-20063 Drive Disc (2lu)</td>
<td>2 ea. A-1638-17 Washer (21-A)</td>
</tr>
<tr>
<td></td>
<td>1 ea. A-20063 Drive Disc (2lu)</td>
</tr>
<tr>
<td>A-2008lu-B and A-2008lu-C Assemblies</td>
<td>Kit Part No. PL-20201</td>
</tr>
<tr>
<td>(Figure 1)</td>
<td>(Convert A-2008lu-B and -C)</td>
</tr>
<tr>
<td></td>
<td>(Figure 2)</td>
</tr>
<tr>
<td>2 ea. A-20036 Cotter Pin (21)</td>
<td>2 ea. A-1639-2lu Nuts (21)</td>
</tr>
<tr>
<td>As req. A-20072-1 Spacer (A-2008lu-C only) (23)</td>
<td>2 ea. A-1638-17 Washer (21-A)</td>
</tr>
</tbody>
</table>

NOTE: The A-2008lu-B and A-2008lu-C assemblies may have extra A-20072-A (23,.030 inches thick) or A-20072-1 (not shown,.010 inches thick) flyweight spacers located between the cotter pin and the drive disc, in addition to those located between the flyweight and the drive disc as shown on Fig. 2. The four each spacers (.030 inches thick) between drive disc and flyweight are to be retained but all those between cotter pin and drive disc must be discarded.

3) Reassemble the flyweight and drive disc assemblies as follows: (See Figure 2)

a) Flyweights (22) are positioned in the drive disc (2lu) as shown.

b) Two A-20072-A spacers (23) are located between the "toe" side of the flyweight (22) and the drive disc (2lu). See note under step 2 above.

c) The A-20070-B flyweight pin (25) is inserted in the A-2008lu-D assembly so that the threaded end of the pin is adjacent to the side of the flyweight "toe".

d) The A-1638-17 washer (21A,.016 thick by .1lu9 I.D. by .375 O.D.) is located (continued)
PROCEDURE AND IDENTIFICATION (Continued)

3- d) on the flyweight pin (25), between the drive disc (2h) and the A-1639-2h nut (21).

e) Torque the A-1639-2h nut to three to five lb.-in. As a safe-tie, bend the A-1638-17 washer over drive disc on one side and over nut on opposite side as shown in Fig. 1.

CAUTION: Use a torque wrench. Do not over-torque as it may bind the flyweights in the assembly. After torquing nuts, check to see that flyweights rotate freely.

4) Install corrected drive disc and flyweight assembly (21 to 25) into governor, over the end of drive gear (36). Reassemble the control head assembly (6 to 20) into governor by inserting pilot spool (10) carefully into the hole in drive gear. Take care that thrust bearing parts (6 and 7) are properly positioned.

5) Relocate the cover in the proper position as indicated by the scribe marks on cover and body (see step (1b) above). Attach cover with six screws (li) with 18 to 24 lb.-in. torque and safe-tie with lockwire.

6) To identify the governor for compliance with this service bulletin, metal stamp the letter "C" (3/32 inch high character) behind the serial number, i.e. 69XXXXC after compliance. The serial number and governor model number are permanent impression stampings which are located on the side of the body at the engine end where noted on Fig. 2.

CAUTION: When stamping the letter "C" behind the serial number, take care that the impression is not made too near the edges or it may deform the corner.

COMPLIANCE:

Replace the A-20070-A flyweight pin and A-20036 cotter pins when the governor is overhauled or whenever disassembled (as for repair or servicing).

PARTS AVAILABILITY:

1) A kit P/N PL-20020 contains all parts necessary for the correction of C290D2/TX and C290D2-A/TX governor models that have not been modified in accordance with McCauley Service Letter dated 25 January 1968. A kit P/N PL-20021 contains all parts necessary for the correction of the C290D2-B/TX model, and for C290D2/TX and C290D2-A/TX models that have been modified, in accordance with McCauley Service Letter dated 25 January 1968. The list price for the kits is $3.00 for PL-20200 and $1.00 for PL-20201. These prices are effective to June 1970 (prices subject to change without notice).

2) The A-20070-A flyweight pin (25, Fig. 1) and A-20036 cotter pin (21) are now obsolete. The new A-20070-B flyweight pin (25, Fig. 2) will be shipped against any orders for A-20070-A. The new A-1638-17 washer (21A) and A-1639-2h nut (21) will be shipped against any orders for the A-20036 cotter pin.

NOTE:

A numerical Parts Price List No. 690601 is available upon request which lists the current prices for all parts supplied by McCauley.

McCAULEY INDUSTRIAL CORPORATION
Figure 3. Governor Assembly, Model C290D2-A/T and Model C290D2/T.
Figure 4

A-20084-D FLYWEIGHT AND DRIVE DISC ASSEMBLY
SERVICE BULLETIN NO. 73
DOA APPROVED 15 SEPTEMBER 1969
NECESSARY AND REQUIRED ACTION

TO: Cessna Aircraft Company, Reims Aviation, FAA Approved Governor Repair Stations, and McCauley Distributors.

SUBJECT: Governor Flyweight Pin Improvement and Replacement

GOVERNOR MODEL AFFECTED: C290D2-B/T6

AIRCRAFT MODELS AFFECTED: Cessna FR-172E and F; and R-172E and F (USA T-41B and D).

CONDITION:

1) Recently, some governors, on the above affected aircraft with the Continental IO-360-D engine, have been found with broken cotter pins. The cotter pins are used to secure the flyweight pins in the drive disc. Should this failure occur, it can cause an overspeed condition, and prevent the governor from controlling the propeller.

CORRECTION:

1) A new A-2008h-D flyweight and drive disc assembly is now being used in C290D2-C/T6 model governors. This is an improved unit which replaces the old A-2008h-B and -C assemblies. The basic improvement in this assembly is the A-20070-B flyweight pin which replaces A-20070-A.

2) The affected governor model must be partially disassembled to have new pins, nuts, and washers installed as shown below under "PROCEDURE". This correction may be accomplished by an FAA Approved Governor Repair Station or by an A & P mechanic.

PROCEDURE AND IDENTIFICATION

1) The governor may be disassembled sufficiently on the aircraft and correction made as follows (see Fig. 1): 
   a) Remove cowling and any baffling necessary to obtain access to the governor. Disconnect propeller control linkage rod from governor arm (13), being careful not to disturb the setting of the linkage. Follow the aircraft manufacturer's recommendations for these operations.

(Continued)
b) Scribe a line on the outer diameter of the governor cover (2) and body (39) so that parts may be reinstalled later in exactly the same position.

c) Remove lockwire from cover screws (h) and remove screws.

d) Pull the control head assembly (6 to 20) from the governor, being careful that bearing race (6) and thrust bearing (7) do not drop from pilot spool (10). Set these parts aside where they will not be damaged or contaminated.

e) Carefully remove drive disc and flyweight assembly (21 to 25).

f) Remove cotter pins (21) from flyweight pins (25) and remove flyweight pins from assembly.

2) There are two different drive disc and flyweight assemblies installed in the affected governors, either the A-20084-B or -C. Either of these require the same flyweight pin, nuts, and washers for correction.

The following is a list of obsolete parts and the new parts required to convert old assemblies to the A-20084-D assembly.

<table>
<thead>
<tr>
<th>Obsolete Parts in A-20084-B and A-20084-C (Figure 1)</th>
<th>New Parts Req'd to Convert to A-20084-D (Figure 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As req. - A-20072-1 Spacers (not shown, see note below)</td>
<td>2 ea. A-1638-17 Washers (21A)</td>
</tr>
</tbody>
</table>

NOTE: The A-20084-B and A-20084-C assemblies may have extra A-20072-A (23, .030 inches thick) or A-20072-1 (not shown, .010 inches thick) flyweight spacers located between the cotter pin and the drive disc, in addition to those located between the flyweight and the drive disc as shown on Figure 2. The four each spacers (.030 inches thick) between drive disc and flyweight are to be retained, but all those between cotter pin and drive disc must be discarded.

3) Reassemble flyweight and drive disc assemblies as follows (see figure 2):

a) Flyweights (22) are positioned in the drive disc (2h) as shown.

b) Two A-20072-A spacers (23) are located between the "toe" side of the flyweight (22) and the drive disc (2h). See "Note" under step 2 above.

c) The A-20070-B flyweight pin (25) is inserted in the A-20084-D assembly so that the threaded end of the pin is adjacent to the side of the flyweight "toe".

d) The A-1638-17 washer (21A .016 thick by .119 I.D. by .375 O.D.) is located on the flyweight pin (25) between the drive disc and the A-1639-2h nut (21).

(continued)
Sheet (3) Service Bulletin No. 73

e) Torque the A-1639-2h nut (21) to three to five lb.-in. As a safe-tie, bend the A-1638-17 washer (21A) over drive disc on one side and over nut on opposite side as shown in Figure 3.

CAUTION: Use a torque wrench. Do not over-torque as it may bind the flyweights in the assembly. After Torquing nuts, check to see that flyweights rotate freely.

4) Install corrected drive disc and flyweight assembly (21 to 25) into governor, over the end of drive gear (36). Reassemble the control head assembly (6 to 20) into governor by inserting pilot spool (10) carefully into the hole in the drive gear. Take care that thrust bearing parts (6 and 7) are properly positioned.

5) Relocate the cover in the proper position as indicated by the scribe marks on cover and body (see step (1b) above). Attach cover with six screws (h) with 18 to 24 lb.-in. torque and safe-tie with lockwire.

6) To identify the governor for compliance with this service bulletin, metal stamp the letter "C" (3/32 inch high character) behind the serial number, i.e. 69XXXXC after compliance. The serial number and governor model number are permanent impression stampings which are located on the side of the body at the engine end where noted on Fig. 2.

CAUTION: When stamping the letter "C" behind the serial number, take care that the impression is not made too near the edges or it may deform the corner.

7) Replace control linkage, baffling, and cowling as required.

COMPLIANCE:

1) Regardless of the number of hours of service, replace the A-20070-A flyweight pin and A-20036 cotter pins within the next 100 hours of service.

2) Proper entry showing compliance with this service bulletin shall be made in the aircraft log book.

PARTS AVAILABILITY:

1) A kit, McCauley P/N PL-20201, contains all parts necessary for the correction of one governor and is immediately available from McCauley stock at a list price of $4.00, effective to 1 June 1970 (price subject to change without notice).

2) The A-20070-A flyweight pin (25, Fig. 1) and A-20036 cotter pin (21) are now obsolete. The new A-20070-B flyweight pin (25, Fig. 2) will be shipped against any orders for A-20070-A. The new A-1638-17 washer (21A) and A-1639-2h nut (21) will be shipped against any orders for the A-20036 cotter pin.

NOTE: A numerical Parts Price List No. 690601 is available upon request which lists the current prices for all parts supplied by McCauley.
A-20084-D FLYWEIGHT AND DRIVE DISC ASSEMBLY

Figure 3