

# ALERT SERVICE BULLETIN



November 06, 2018

ASB273B

## TITLE

A-20028 IDLER GOVERNOR GEAR BEARING INSPECTION INSTRUCTIONS

## TO:

FAA-Approved Propeller Repair Stations, Aircraft Manufacturers, and Owners and Operators

## MODELS AFFECTED

The following McCauley Governors are affected by this service bulletin:

**NOTE:** For warranty consideration, the governor must be within the applicability stated below.

### Group A Governors

1. Any model McCauley Governor with Serial Numbers 170061 thru 180501, not including the serial numbers listed in Table 1. These governors were manufactured by McCauley between January 31, 2017 and September 27, 2018 with a suspect A-20028 bearing installed.

### Group B Governors

1. Any Model McCauley Governor with any serial number (including governors listed in Table 1) that has an unapproved variant of the A-20028 bearing installed. Governors that have been overhauled using parts shipped from McCauley between January 31, 2017 and September 27, 2018 may have an unapproved variant of the A-20028 bearing installed as a replacement part. Governors that have had the bearing part number A-20028, gear assembly part number A-20107, overhaul kit part number PL-20233 or PL-20234 installed using parts shipped from McCauley between January 31, 2017 and September 27, 2018 may have an unapproved variant of the A-20028 bearing installed as a replacement part. Documents provided by the governor overhaul facility may be utilized in determining the effectivity of suspect overhauled or repaired governors.

**NOTE:** Any governor that has been stamped with the letter B has previously completed this Alert Service Bulletin and is not applicable.

Original Issue: September 27, 2018

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*TO OBTAIN SATISFACTORY RESULTS, PROCEDURES SPECIFIED IN THIS SERVICE INFORMATION MUST BE ACCOMPLISHED IN ACCORDANCE WITH ACCEPTED METHODS AND PREVAILING GOVERNMENT REGULATIONS. MCCAULEY PROPELLER SYSTEMS CANNOT BE RESPONSIBLE FOR THE QUALITY OF WORK PERFORMED IN ACCOMPLISHING THIS SERVICE INFORMATION.*

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**ASB273B**

**TABLE 1**

Governor Model, Part and Serial Numbers					
Exempt Constant Speed Governors					
C290D4-[X]/ T[X]	C290D3-[X]/T[X]		DC290D1-[X]/T[X]		C290D8-[X]/ T[X]
C-20373	D-20309		D-20893		D-20960
180032	170722	180345 thru 180346	170191 thru 170192	180122 thru 180124	180329 thru 180332
180279	180196	180350	170239	180206 thru 180207	
180355	180203	180362 thru 180365	170314	180209 thru 180211	
180481 thru 180489	180209	180403 thru 180404	170353 thru 170354	180215	
	180214	180406	170384	180218 thru 180219	
	180220	180409 thru 180410	170512 thru 170515	180222 thru 180223	
	180225	180436 thru 180453	170545	180335 thru 180336	
	180243 thru 180248	180471 thru 180472	170726	180399	
	180251 thru 180258	180492	170728	180405	
	180290	180494 thru 180499	180065 thru 180066	180407 thru 180408	
	180296 thru 180304		180463 thru 180469	180413 thru 180426	
				180458 thru 180459	

**TABLE 1 CONTINUED**

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Governor Model, Part and Serial Numbers					
Exempt Feathering Governors					
DCF290D7- [X]X/T[X]X, DCF310D7-[X]/ T[X]	DCFUS290D9- [X]X/T[X]	DCFS290D9-[X]X/T[X]		DCFUS290D13- [X]X/T[X], DCFUS310D13- [X]/T[X]	DCFUS290D10- [X]/T[X]
D-20676	D-20740	D-20741		D-20775	D-20963
18049 thru 18054	180072	180002 thru 180006	180055 thru 180060	180073 thru 180074	180071
180050		180009	180067 thru 180068		
180061 thru 180062		180011	180070		
		180014	180075 thru 180080		
		180019 thru 180045	180069		

**NOTE:** The governors identified in Table 1 were shipped from McCauley with an approved A-20028 bearing installed.

## REFERENCE PUBLICATION

780401, Governor and Accumulator Service Manual, SB271: A-20028 IDLER GOVERNOR GEAR BEARING INSPECTION.

To provide assistance with warranty accomplishment information, refer to the attached Warranty Supplemental information, WS273 provided with this bulletin.

## REASON

McCauley has become aware of an unapproved variant of the McCauley P/N A-20028 governor gear bearing that may fail prematurely, causing governor failure and oil contamination in the engine and propeller. Early symptoms of the failure may include erratic governor behavior, including the inability of the governor to hold selected RPM, hunting, surging, etc. The unapproved version of the A-20028 bearing is identified by the marking "BA-59". The A-20028 bearing is utilized in ALL McCauley governor models. This revision to the Service Bulletin ASB273 requires the removal of certain installed A-20028 bearings that are in service to inspect for the unapproved bearing variant marking "BA-59".

## DESCRIPTION

The unapproved bearing variant "BA-59" are known to have been installed on new factory governors and supplied as replacement parts for governors being repaired or overhauled. The purpose of this Service Bulletin is to require inspection of affected governors and to remove any A-20028 bearing identified with the "BA-59" variant marking. If you have questions regarding this unapproved variant, please contact Customer Support via email at [productsupport@txtav.com](mailto:productsupport@txtav.com), or by phone: Domestic (1-800-621-7767) or International (+1-316-831-4021). For replacement parts and warranty consideration refer to the Warranty Supplement WS273 and/or contact Customer Support via email at: [productsupport@txtav.com](mailto:productsupport@txtav.com), or by phone. Domestic (1-800-621-7767) or International (+1-316-831-4021) for any additional information.

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**ASB273B**

## COMPLIANCE

**MANDATORY:** All inspection requirements must be accomplished at the compliance times and intervals listed below.

**NOTE:** Airplanes/Governors that have previously complied with ASB273 or ASB273 Revision A:

- If the governor was returned for inspection and repair, no further action is required.
- If the governor was determined to NOT be affected by serial number, ASB273 Revision B needs to be reviewed for model and serial number effectivity listed in Table 1.

1. For erratic governor behavior, compliance with this Service Bulletin must be accomplished immediately.
2. Otherwise, compliance with this Service Bulletin must be accomplished within 25 hours of operation.

## ACCOMPLISHMENT INSTRUCTIONS

**NOTE:** Read and understand all of the instructions that follow before work is started on the governor.

**NOTE:** Compliance of this Bulletin does **NOT** constitute a Governor Overhaul.

**NOTE:** The following procedures are an outline of the steps that need to occur for compliance with this bulletin. Each of the following must be performed by an appropriately rated mechanic and/or facility. Suspect governors should be returned to a Authorized McCauley Service Facility that is rated for performing governor overhaul work. Follow McCauley Governor Manual 780401 for all disassembly and re-assembly instructions.

1. DO THE A-20028 IDLER GOVERNOR GEAR BEARING INSPECTION
  - A. Governor Evaluation, do the following:
    - (1) Remove the affected governor from the engine in accordance with the aircraft manufacturer or applicable STC holder's instructions.
    - (2) Remove the C-20943 cover-pump housing from the governor assembly. Examine the inside of the housing and the base of the exposed governor (Refer to Figure 1). Note and photo document any signs of metallic debris.

C2759

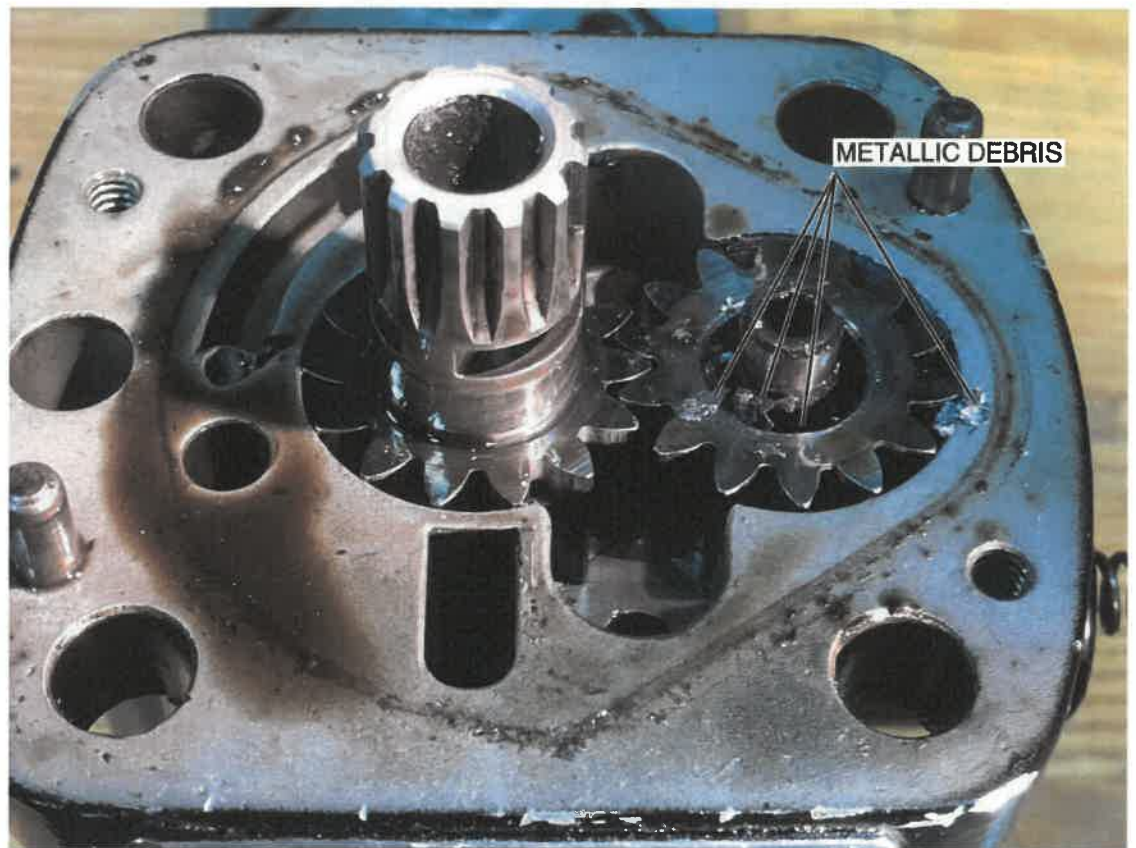


Figure 1. Metallic Debris Example (Sheet 1)

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ASB273B

- (3) Remove the A-20107 Idler Gear Assembly. Examine the B-20822 idler gear, the installed A-20028 idler bearing and the underside of the governor body for metallic debris. Note the part marking on the A-20028 idler gear.
- (4) Remove the pressure relief plug and spring. Examine pressure relief port for signs of metallic debris.
- (5) If signs of metallic debris were observed/noted in steps (2), (3), or (4), go to Section D.
- (6) If no signs of metallic debris were observed/noted and the exposed bearing surface is identified with the bearing variant "BA-59", then go to Section B.
- (7) If the bearing is not identified with the bearing variant "BA-59", then go to Section C.

**B. Bearings Identified as "BA-59", do the following:**

- (1) If metallic debris was NOT observed/noted, follow McCauley Governor Manual 780401 to do the steps below.
- (2) Remove and retain the affected A-20028 idler bearing.
- (3) Visually examine the B-20822 Idler Gear for serviceability.

**CAUTION:** DO NOT INSTALL ANY NEW BEARING VARIANT MARKED "BA-59"

- (a) If serviceable, install a factory new A-20028 idler bearing in the gear.
- (b) If unserviceable, replace the idler gear B-20822 and install a factory new A-20028 idler bearing, or replace with a A-20107 idler gear assembly with the bearing already installed.
- (4) Install the A-20107 idler gear assembly into the governor and assemble the C-20943 cover-pump housing with new A-1633-36 O-ring.
- (5) Install the pressure relief spring and plug.
- (6) Do a bench test of the governor, refer to the McCauley Governor Manual 780401.
- (7) Go to step E.

**C. Bearing NOT Identified as "BA-59", do the following:**

- (1) If the bearing was NOT identified with the bearing variant "BA-59" and no metallic debris was found during inspection, refer to the McCauley Governor Manual 780401 and do the steps below:
- (2) Examine the A-20107 idler gear assembly.
- (3) Install the serviceable A-20107 idler gear assembly into the governor or replace as required.
- (4) Assemble the C-20943 cover-pump housing using a new A-1633-36 o-ring.
- (5) Install the pressure relief spring and plug.
- (6) Do a bench test of the governor, refer to the McCauley Governor Manual 780401.
- (7) Go to step E.

**D. If Metallic Debris WAS Observed/Noted, refer to the McCauley Governor Manual 780401 and do the following:**

- (1) Remove and retain the A-20107 idler gear assembly.
- (2) Overhaul the governor and complete associated actions as indicated in McCauley SB215C

**E. Stamp the letter "B" (Approximately 1/8th of an inch character) on the governor body as shown in Figure 2.**

**NOTE:** Governor stamping can be on the side shown in Figure 2, or on the data plate side.

C2780

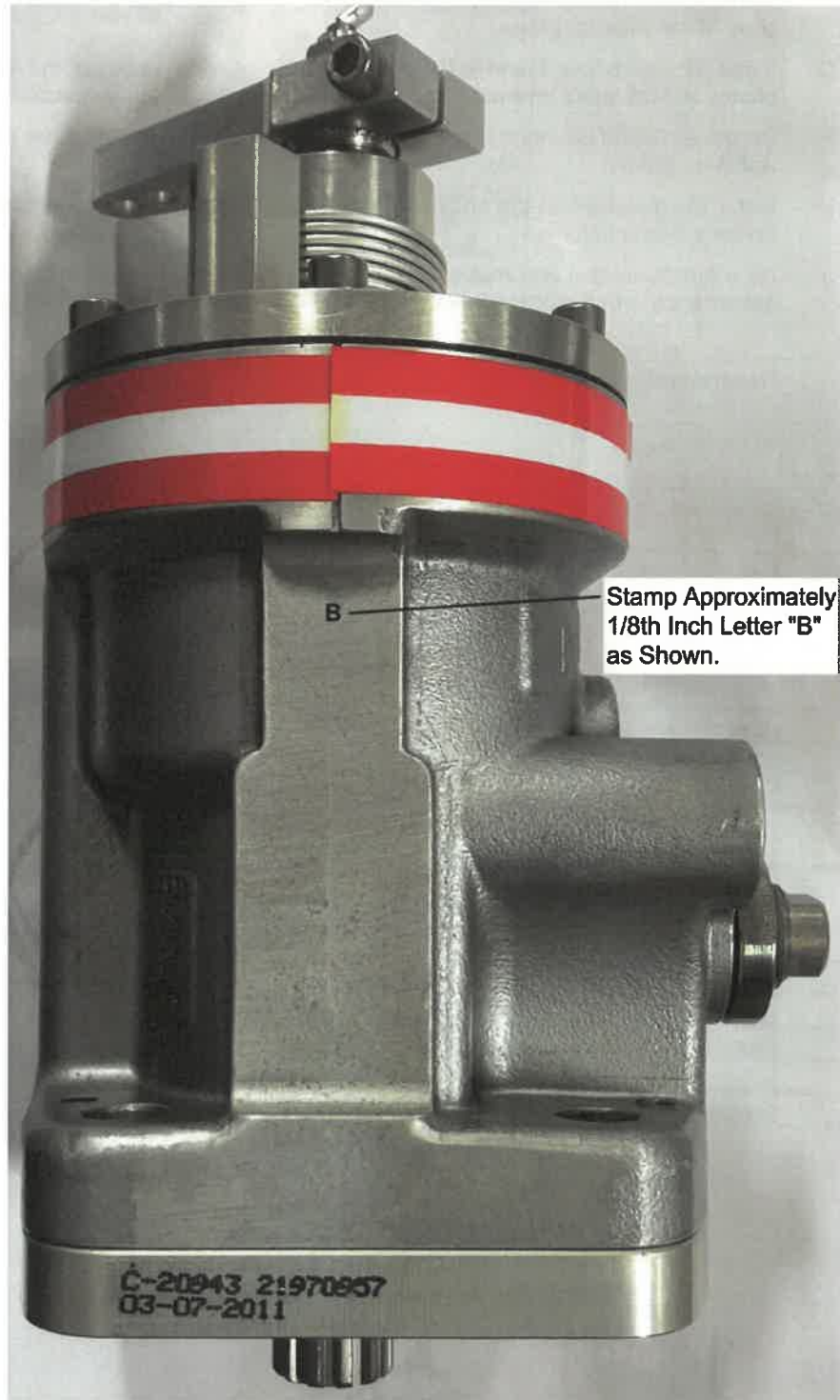


Figure 2. Governor Stamping (Sheet 1)

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## ASB273B

- F. Complete the attached ASB273B Reporting Form to provide findings of the governor inspection to the service facility/operator. If metallic debris was found in the governor, include photos with a copy of the reporting form.
- G. If metallic debris was found in the governor, also provide a copy of the ASB273B reporting form and photos to McCauley Product Support email: [ProductSupport@txtav.com](mailto:ProductSupport@txtav.com).
- H. Removed BA-59 bearings and A-20107 idler gear assemblies must be returned to McCauley with warranty claims.
- I. Install the governor on the engine in accordance with the aircraft manufacturer or applicable STC holder's instructions.
- J. Do a functional test and make any necessary adjustment(s) to the governor as needed, in accordance with the procedures prescribed in the aircraft maintenance manual.



# ALERT SERVICE BULLETIN



**ASB273B**

**REPORTING FORM FOR ALERT SERVICE BULLETIN ASB273B**

This form must be completed by Authorized McCauley Governor Repair Stations following governor inspections required for compliance with this bulletin.

**NOTE:** Information requested on this form is required for providing feedback to the Service Facility that originally removed and will reinstall the governor. The form must be completed on all governors inspected per the service bulletin to provide service facilities documentation if metallic debris was found, or was not found inside of the governor.

**NOTE:** For governors that are found to contain metallic debris during the inspection, a photo should be taken and also provided to the service facility with the reporting form.

**NOTE:** For governors that are found to contain metallic debris during the inspection, the same photo and a copy of the reporting form should also be sent to McCauley at email: [productsupport@txtav.com](mailto:productsupport@txtav.com).

<b>REPORTING FORM FOR ALERT SERVICE BULLETIN ASB273B</b>		
<b>Section 1 - Service Facility/Operator Information</b>		
Service Facility or Operator		
Telephone Number		
Email Address		
Date of Compliance		
Governor SN		
Governor T.S.O.		
Governor Model Number		
<b>Section 2 - Inspection Findings</b>		
Governor Repair Station that performed the inspection		
Governor Repair Station Telephone Number		
Was a BA-59 Idler Gear Bearing found in the governor during inspection?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Was Metallic Debris found inside the governor during the inspection?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Submit photographs, preferably digital, of metallic debris found and confirmed to the email address below.		

# WARRANTY SUPPLEMENT



## TITLE

A-20028 IDLER GOVERNOR GEAR BEARING INSPECTION INSTRUCTIONS

## TO:

FAA-Approved Propeller Repair Stations

**NOTE:** For warranty consideration, the governor must be within the applicability in ASB273A or later.

## LABOR HOURS:

CONDITION	LABOR-HOURS
Remove and Reinstall Governor from Engine	2.0* (See Warranty Statement Below)
Governor Bearing is Correct Part	2.0
Governor Bearing is Incorrect Part and Serviceable	2.5
Governor Bearing is Incorrect Part and Failed (non-feathering/non-synching governor)	7.0 (Overhaul)
Governor Bearing is Incorrect Part and Failed (feathering/synching governor)	9.0 (Overhaul)

## MATERIAL AVAILABILITY

For a list of part numbers, refer to the McCauley 780401 Governor and Accumulator Service Manual.

## WARRANTY

Authorized McCauley Service Facilities that are rated to overhaul propeller governors will qualify for parts and labor coverage when ASB273 is completed on an eligible governor to the extent noted in the Labor Hours and Material Availability sections of this document. Authorized McCauley Service Facilities will be reimbursed for shipping cost of the governor. \*Additionally, Authorized McCauley Service Facilities will be reimbursed for 2.0 hours labor to remove and reinstall the governor, to be forwarded to the mechanic or facility that removed and reinstalled the governor.

October 23, 2018

WS273  
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McCauley Publications Customer Service, P.O. Box 7706, Wichita, Kansas 67277-7706, U.S.A. (316) 517-5800, Facsimile (316) 517-7271, Email: [customer care@mccauley.textron.com](mailto:customer care@mccauley.textron.com)

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# WARRANTY SUPPLEMENT



**WS273**

**Eligibility:** All McCauley governors identified in McCauley Alert Service Bulletin ASB273 Rev A or later.

Per normal Textron Aviation warranty processes, all parts claimed under warranty must be traceable back to an original McCauley/Textron Aviation sales order that was shipped within the timeframe of ASB273. Any claim that does not include this information will not be paid.

**Labor Coverage:** The McCauley Authorized Service Facility will reimburse the mechanic or maintenance facility for shipping cost and 2 hours of labor to cover removal and reinstallation of the propeller governor.

**CREDIT APPLICATION:** After this service document has been accomplished, a claim must be submitted to Textron Aviation within 30 days of the service document completion. Claims for compliance of this service document are to be filed as a spare parts type claim.

Please submit your claim form online at: [ww2.txtav.com/parts](http://ww2.txtav.com/parts) ; or email the completed Textron Aviation Claim Form to [warranty@txtav.com](mailto:warranty@txtav.com). If submitted on-line a Return Authorization will be provided. If a paper claim is submitted your claim will be entered into the system and a Return Authorization will be sent to you.

The Return Authorization must accompany any required return parts, (See Material Availability).

Parts to be returned to Textron Aviation Parts Distribution should be forwarded to:

**McCauley Propeller Systems**

**Attn: Warranty Processing (ASB273)**

**5000 Cargo Drive**

**Columbus, GA 31907**

**EXPIRATION:** October 23, 2019 (after this date the owner/operator assumes the responsibility for compliance costs).

