

ALERT SERVICE BULLETIN



October 23, 2018

ASB273A

TITLE

A-20028 IDLER GOVERNOR GEAR BEARING INSPECTION INSTRUCTIONS

TO:

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

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.

McCauley Propeller Systems
PO Box 7704
Wichita, Kansas 67277-7704

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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

- Any model McCauley Governor with Serial Numbers 170061 thru 180501, not including the serial numbers listed in Table 1 below. These governors were manufactured by McCauley between January 31, 2017 and September 27, 2018 with a suspect A-20029 bearing installed.

Group B Governors

- Any Model McCauley Governor with any serial number (including governors listed in Table 1 below) that has been overhauled or had the bearing part number A-20028, gear assembly part number A-20107, overhaul kit part number PL-20233 or PL-20344 installed using parts shipped from McCauley between January 31, 2017 and September 27, 2018. These governors may have an unapproved variant of the A-20028 bearing installed as a replacement part.

TABLE 1

Governor Serial Numbers					
170191	180041 thru 180045	180206*	180243 thru 180248	180336	180413 thru 180426
170192	180049 thru 180054	180207	180251 thru 180258	180345	180436 thru 180452
170239*	180057 thru 180062	180209 thru 180211	180279	180346	180458
170314	180065 thru 180072	180215*	180289	180350	180459
170353	180122 thru 180124	180218	180290	180362*	180463 thru 180469*
170354	180159	180219*	180296 thru 180304	180363*	180481 thru 180489
170384	180161	180222	180329 thru 180332	180365*	180494 thru 180499
170512 thru 170515	180162	180223*	180335	180396 thru 180410*	

NOTE: Any serialization noted with an asterisk (*) has been revised/added during revision A of this bulletin.

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.

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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 all 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. For replacement parts and warranty consideration refer to the Warranty Supplement WS273 and/or contact Customer Support via email at: productsupport@txtav.com, or by phone. Domestic (1-800-621-7767) or International (+1-316-831-4021) for any additional information.

COMPLIANCE

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

NOTE: If Original Issue ASB273 has been complied with, Revision A of this service bulletin is not applicable.

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.

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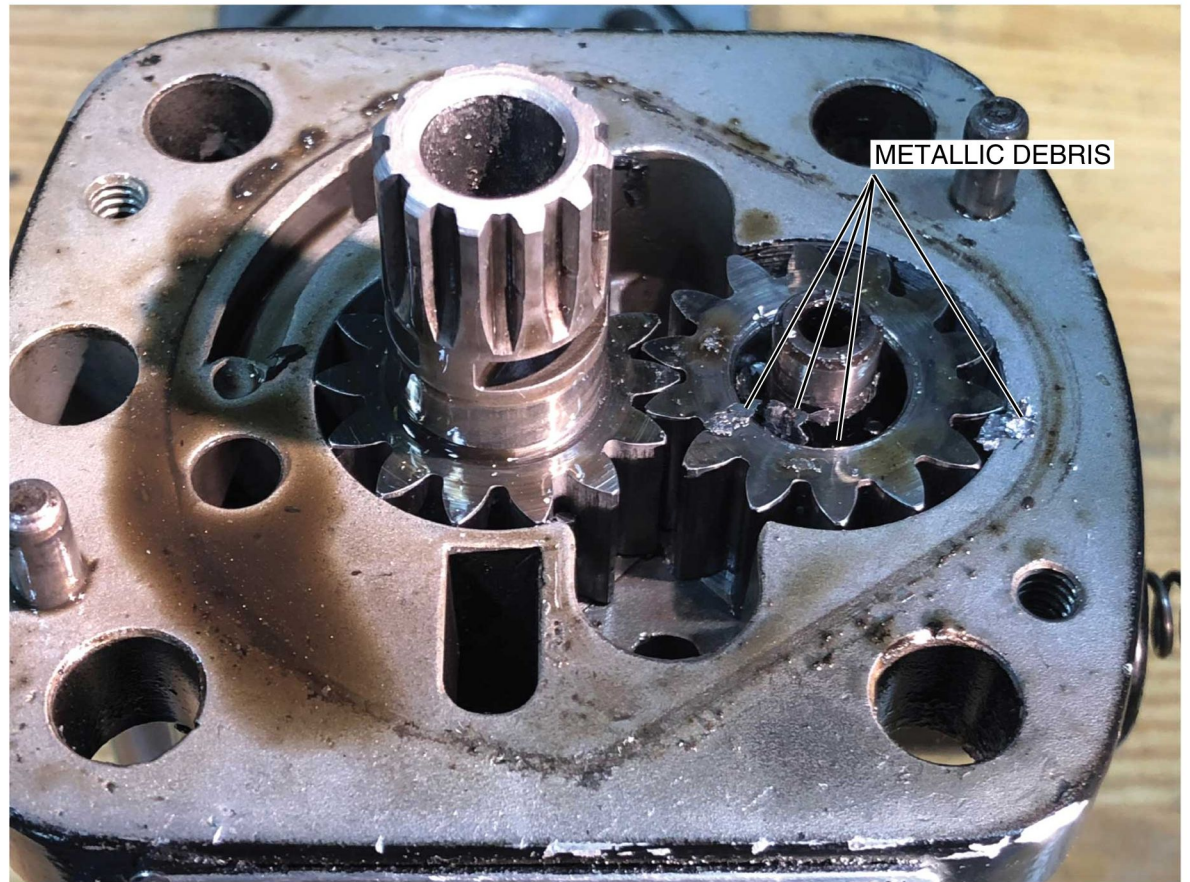


Figure 1. Metallic Debris Example (Sheet 1)

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- (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.

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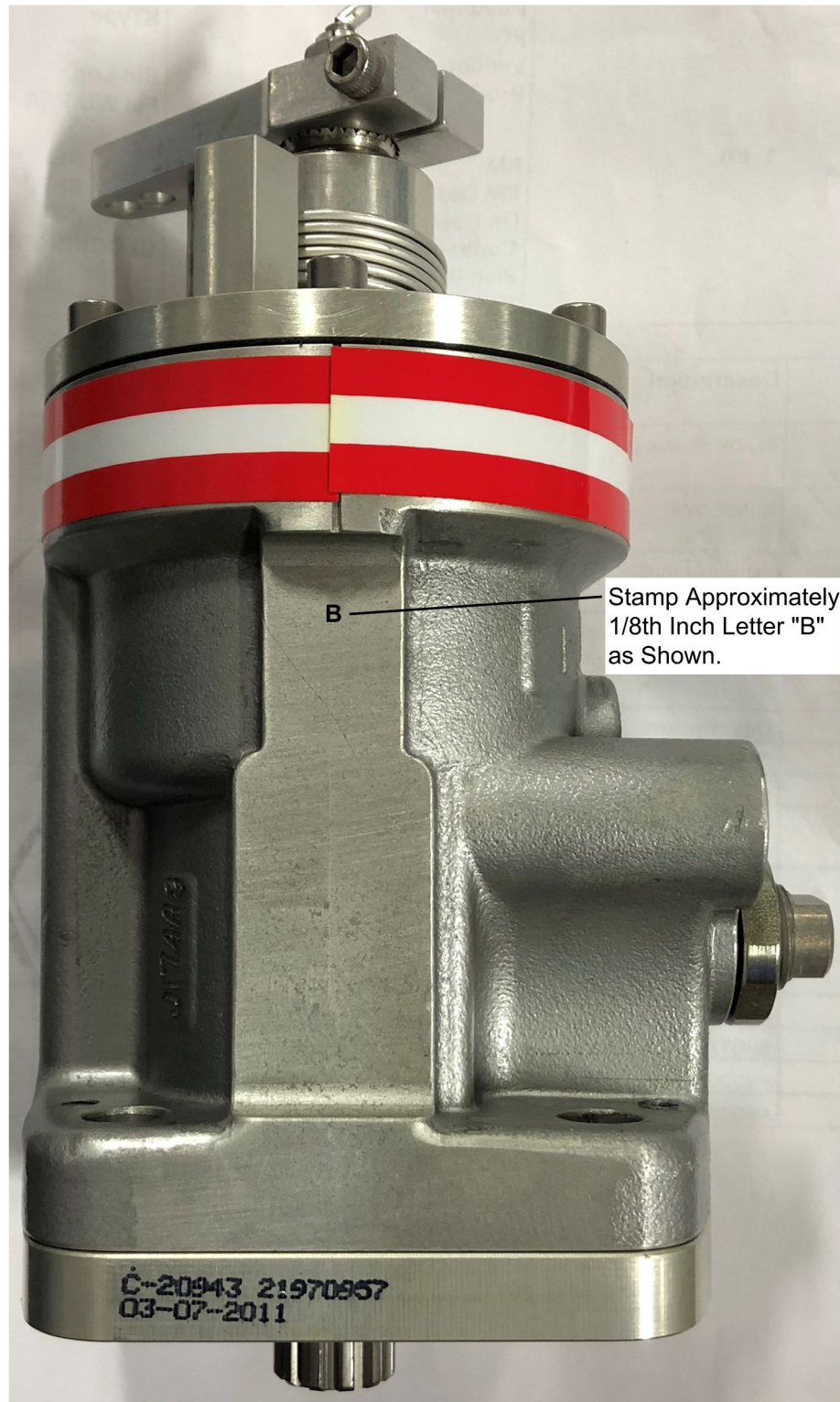


Figure 2. Governor Stamping (Sheet 1)

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- F. Install the governor on the engine in accordance with the aircraft manufacturer or applicable STC holder's instructions.
- G. 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.
- H. Complete the attached ASB273A 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.
- I. If metallic debris was found in the governor, also provide a copy of the ASB273A reporting form and photos to McCauley Product Support email: ProductSupport@txtav.com.
- J. Removed BA-59 bearings and A-20107 idler gear assemblies must be returned to McCauley with warranty claims.

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REPORTING FORM FOR ALERT SERVICE BULLETIN ASB273A

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.

REPORTING FORM FOR ALERT SERVICE BULLETIN ASB273A		
Section 1 - Service Facility/Operator Information		
Service Facility or Operator		
Telephone Number		
Email Address		
Date of Compliance		
Governor SN		
Governor T.S.O.		
Governor Model Number		
Section 2 - Inspection Findings		
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 contact email address below.		

1. McCauley Propeller Systems, P.O. Box 7704, Wichita, KS, 67277-7704. Phone: 800-621-7767, Email: productsupport@txtav.com.

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WARRANTY SUPPLEMENT



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WS273

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.

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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: customercare@mccauley.textron.com

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WARRANTY SUPPLEMENT



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

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 ; or email the completed Textron Aviation Claim Form to 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).