Revision Transmittal Sheet SB240

May 1, 2026

This sheet transmits Revision 6 to SB240, which:

1. Adds a red "Mandatory" to service document.

Original Issue	December 15, 2002
Revision 6	May 1, 2026

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SERVICE BULLETIN

MANDATORY

May 1, 2026

SB240F

TITLE

INSPECTION OF PROPELLER BLADES FOR CRACKING

TO:

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

MODELS AFFECTED:

1A170E/JHA[XXXX], See Compliance: for Specific Serial

SERVICE MANUAL AFFECTED

730720

This service information is to be added to the appropriate McCauley Service Manual until the next manual revision is issued.

Service Bulletin 240F replaces 240E and previous revisions of SB240 in the entirety. Service Bulletin 240F adds a 'Red Mandatory' at the top left of the document. Lines in the margins indicate changes.

CONDITION

There has been a report of a blade crack on the affected propeller. The crack propagated from a forging defect on the trailing edge of the blade.

Propagation of the crack was enhanced by a higher than average number of takeoff cycles per flight hours as typified by aircraft operated by pilot schools under 14 CFR, Part 141. Compliance by all other operators exceeding 2000 takeoff cycles per 1000 flight hours is now required.

Original Issue: December 15, 2002

McCauley Propeller Systems
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COMPLIANCE

MANDATORY. This service document must be accomplished by Aircraft Operating as Pilot Schools, per CFR, Part 141 and aircraft exceeding 2000 takeoff cycles per 1000 flight hours as follows:

1. Initial Inspection Compliance:

   A. Propeller serial numbers between RK015 and VA23060 inclusive:

      NOTE:

      (1) Propellers which have not previously been inspected per Service Bulletin 240[X] or overhauled perform inspection per Section II within 75 hours of receipt of this service bulletin.

   B. Propeller serial numbers VB23001 and above:

      (1) If propeller total time is less than or equal to 1000 hours and the propeller has never been overhauled, perform inspection per Section II upon reaching 1000 flight hours.

      (2) If the propeller total time is more than 1000 hours and less than 2000 hours and propeller has never been overhauled, perform inspection per Section II within 100 hour of the receipt of this service bulletin.

2. Repetitive Inspection Compliance:

   A. All propeller serial numbers:

      (1) Perform inspection per Section II every 6 years or 1000 hours whichever occurs first from date of previous inspection per Service Bulletin 240X from last overhaul.

      NOTE: Refer to Figure 1 for serial number explanation.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

1) The mechanic must complete all of the instructions in the service document, including the intent therein.

2) The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from McCauley can substitute parts or rebuilt parts be used to replace new parts.

3) The mechanic or airplane owner must use the technical data in the service document only as approved and published.

4) The mechanic or airplane owner must apply the information in the service document only to propeller model numbers identified in the *Model Affected* section of the document.

5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

   No individual or corporate organization other than McCauley is authorized to make or apply any changes to a McCauley-issued service document without prior written consent from McCauley.

   McCauley is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

APPROVAL

McCauley has received FAA approval for the technical data in this publication that changes the airplane type design.

CONSUMABLE MATERIAL

None.

REFERENCE PUBLICATION

McCauley Owner/Operator Information Manual

ASTM-E-1417

McCauley Manual 730720

PUBLICATIONS AFFECTED

None

ACCOMPLISHMENT INSTRUCTIONS

1. Remove the propeller spacer and spinner bulkhead from the propeller. (Refer to Section I of this service bulletin.)

   NOTE: Refer to Figure 1, Sheet 1 for serial number explanation.

2. Perform the liquid penetrant inspection per Section II.
3. Any propeller showing relevant indications must be removed from service. Contact McCauley Product support.
4. Stamp compliance indicator per Section II and make logbook entry noting compliance with this service bulletin.
5. **Section I**

   A. **Propeller and Spacer Removal**

   (1) Remove propeller from aircraft per aircraft manufacturer's instructions.

   (2) Remove spacer and bulkhead from propeller per the following instructions:

   (a) Support propeller by nesting it between two shot or sand-filled bags, placed as closely to the hub as possible with the spacer down. Allow sufficient (approximately 2 inches) for the spacer and bulkhead to separate from the hub.

   CAUTION: ROD MUST HAVE A SMOOTH SURFACE FINISH TO AVOID SCRATCHING SURFACE OF DOWEL HOLE.

   (b) Select a smooth rod of proper diameter, approximately 6.0 inches long, and insert into dowel pin hole.

   (c) With light hammer blows, alternately tap one dowel and then the other to free the spacer and bulkhead from the propeller. The dowels will remain captive in the spacer.

   (d) Tapered end of dowel is to be installed in spacer If tapered end was installed in hub remove dowels from spacer by inserting rod into dowel pin hole in spacer. With light hammer blows, alternately tap one dowel and then the other to free the dowel from the spacer.

6. **Section II**

   A. **Propeller Inspection**

(1) Clean the propeller

NOTE: Entire propeller to be inspected.

NOTE: The Propeller should be cleaned with a non-oil based solvent to remove oils, greases, lubricants etc from details. This can be accomplished by hand wiping using non-oil based solvent or vapor de-greasing.

B. Paint Removal

CAUTION: COMPLETE PAINT REMOVAL IS REQUIRED PRIOR TO LIQUID PENETRANT INSPECTION.

NOTE: Chemical stripper per MIL-R-81903 Type II, QPL-81294-26 or equivalent.

C. Immersion

(1) Soak part to be stripped completely below solution level. The part shall remain immersed in the solution for the time necessary to completely loosen the paint film (0.5 to several hours).

(2) Remove the loose paint with a water rinse or a pressurized water spray. The part shall be completely clean after rinsing with no residual contamination.

D. Or Spray or Brush Application

(1) Spray or brush the applicable stripper on the surface to be stripped starting at the top and working down. Allow the first application to work from 5.0 to 45.0 minutes and then water rinse. If hard paint remains, repeat the operation.

(2) Paint surfaces softened by strippers may be scrubbed with nonmetallic brush and/or scraper with plastic or rubber knife to loosen the paint.

(3) After stripping, the surfaces shall be rinsed clean, starting at the top surface using water spray. Type II chemical strippers contain acids. Therefore, rinse shall be done in a continuous and rapid process to prevent pitting of the aluminum.

E. Or Plastic Media

NOTE: Topcoat and primer may be removed by using Type II, Size 10/40 plastic media per MIL-P-85891 or equivalent.

(1) The procedure is to be performed with nozzle distance of 4.0 to 6.0 inches (101.6 to 152.mm) at less than 90º to the part. Air pressure not to exceed 100.0 psi. The part must be cleaned using non-oil based solvent or vapor de-greaser to remove media residue prior to liquid penetrant inspection.

NOTE: The part must be alkaline etched to remove anodize coating and required amount of material prior to liquid penetrant inspection.

F. Alkaline Etch

(1) Immerse the part in 5.0% solution by volume of Sodium Hydroxide (NaOH) at 75º to 85º for 8.0 minutes. Immediately remove the part from the solution and rinse thoroughly with water.

(2) Immerse the part in 10.0% Nitric Acid (HNO3 ~ 40º Be') solution by volume at room temperature for 2.0 to 5.0 minutes to remove black oxide layer. Immediately remove from solution and thoroughly rinse in water. Caution must be taken to ensure all acid is rinsed out of the bolt holes, dowel holes, balance holes, and hub bore.

(3) Liquid penetrant inspect the propeller per ASTM-E-1417. McCauley requires fluorescent Method Type 1 with Sensitivity Level 3.

(4) Careful attention must be taken when inspecting the trailing edge, face and camber side, between the 6.0 and 24.0 inch (152.4 and 609.6 mm) stations.

(5) Residual penetrant and developer must be removed prior to recoating using a non-oil based solvent or vapor de-greasing. Verify complete removal by inspecting under blacklight.

(6) All relevant indications found during this inspection must reported to McCauley Propeller Systems. Do not reinstall any propeller showing relevant indications.

(7) (Refer to Figure 2, Sheet 1.) Stamp propeller hub with compliance indicator "P" at initial inspection using 0.125 inch (3.18 mm) round bottom steel stamp. Stamp the applicable number after the letter "P" to indicate ("2") and additional ("3", "4" etc.) inspections. Compliance indicator is to be stamped 180º from "McCauley" stamping. The propeller may have previous compliance indicator "E" stamped on the hub, stamp new indicator after "E, if present.

(8) Propellers must be chemically re-coated per MIL-C-5541 (Alodine) or MIL-A-8625 (Anodize) prior to painting. Paint per McCauley Manual, 730720.

7. **Section III**

A. **Spacer and Propeller Reinstallation**

(1) Locate spacer on arbor press table, hub mating surface face up.

(2) If dowels were removed from spacer, reinstall dowels in spacer, with tapered end in spacer, by applying a film of oil to each selected dowel and press into spacer. Engage just enough to hold dowel solidly, final location will be made after installation in propeller hub. Extension of both dowels above face of spacer should be the same.

(3) Locate propeller hub on arbor press table, spacer mating surface face up.

(4) Place bulkhead over hub, aligning with dowel holes.

(5) Align spacer so that serial number stamping on spacer aligns with number 1 blade and dowels will engage hub holes. Press spacer down tightly against hub. No clearance is allowed.

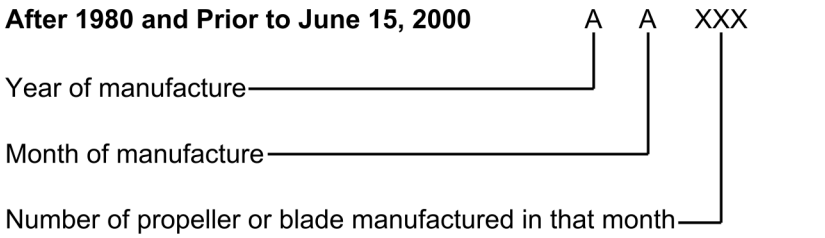
NOTE: The propeller attaching bolts do not require magnetic particle inspection when removed for this inspection.

(6) Install propeller on engine flange per aircraft manufacturer's instructions.

8. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

As of June 15, 2000, McCauley has revised the serial number stamping system on blades and fixed pitch propellers. The first letter remains the year of manufacture, the second letter remains the month of manufacture, the next two digits will reference the forging model, and the last three digits reference the number of propeller or blades manufactured in that month.

YEAR			MONTH
A = 1980	N = 1993		A = January
B = 1981	O = 1994		B = February
C = 1982	P = 1995		C = March
D = 1983	Q = 1996		D = April
E = 1984	R = 1997		E = May
F = 1985	S = 1998		F = June
G = 1986	T = 1999		G = July
H = 1987	U = 2000		H = August
I = 1988	V = 2001		I = September
J = 1989	W = 2002		J = October
K = 1990	X = 2003		K = November
L = 1991	Y = 2004		L = December
M = 1992	Z = 2005		



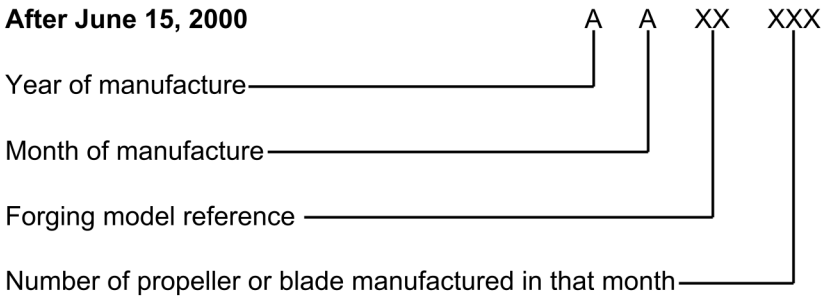


Figure 1. (Sheet 1)

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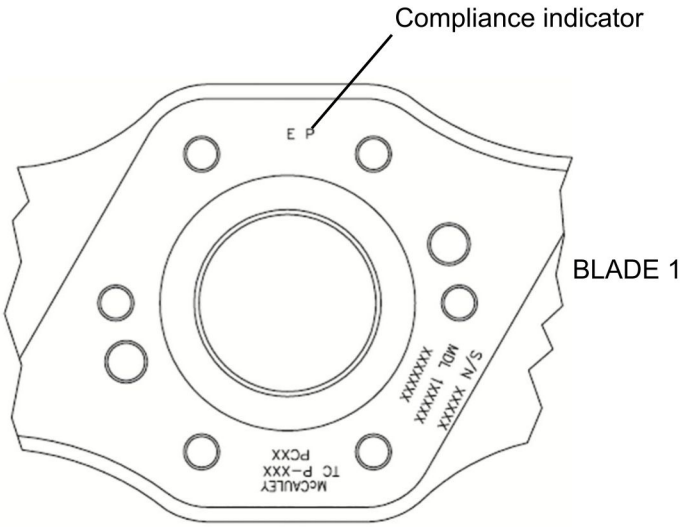

Figure 2. (Sheet 1)

MATERIAL INFORMATION

No parts are required for this service document.