



CIVIL AVIATION AUTHORITY  
CZECH REPUBLIC  
**Airworthiness Division**  
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## AIRWORTHINESS DIRECTIVE

**Number: CAA-AD-054/2003**  
Supersedes CAA-AD-2-051/97  
Date of issue: June 26, 2003  
**McCauley Propeller Systems**  
1A103/TCM

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### PROPELLER – PROPELLER HUB – INSPECTION/REPLACEMENT

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**Applicability:** This airworthiness directive (AD) is applicable to McCauley Propeller Systems 1A103/TCM series propellers with numeric serial numbers 770001 through 777390; and propellers with alphanumeric serial numbers BC001 up to, but not including KC001. These propellers are installed on but not limited to Cessna 152, Cessna A152, Reims F152, and Reims FA152 series airplanes. All alphanumeric serial number propellers beginning with the letters "B" through "J" are affected by this AD.

**Effective date:** August 7, 2003

**Compliance:** Required as indicated in FAA AD 2003-12-05.

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*Remarks: The compliance of this AD must be recorded in Propeller Logbook, where applicable the requirements of this AD must be integrated into Aircraft Technical Documentation. Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyně Airport, 160 08 Prague 6, Czech Republic, tel: 420 233320922, fax: 420 220562270.*

**Ing. Pavel MATOUŠEK**  
director

**2003-12-05 McCauley Propeller Systems:** Amendment 39-13190. Docket No. 97-ANE-06-AD. Supersedes AD 97-06-16, Amendment 39-9973.

*Applicability:* This airworthiness directive (AD) is applicable to McCauley Propeller Systems 1A103/TCM series propellers with numeric serial numbers 770001 through 777390; and propellers with alphanumeric serial numbers BC001 up to, but not including KC001. These propellers are installed on but not limited to Cessna 152, Cessna A152, Reims F152, and Reims FA152 series airplanes. All alphanumeric serial number propellers beginning with the letters "B" through "J" are affected by this AD.

**Note 1:** This AD applies to each propeller identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For propellers that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

*Compliance:* Compliance with this AD is required as indicated below, unless already done.

To prevent propeller separation due to hub fatigue cracking, which can result in loss of control of the airplane, do the following:

#### **Inspection and Rework Requirements**

(a) Inspect propellers, rework or replace with a serviceable propeller, as necessary, and install in accordance with Sections II, III, IV, and V of McCauley Propeller Systems Alert Service Bulletin (ASB) No. 221C, dated September 7, 1999, as follows:

(1) For propellers with 3,000 or more hours time-in-service (TIS), or unknown TIS, on the effective date of this AD, as follows:

(i) If not already done, perform an initial dye penetrant inspection in accordance with Section II of the ASB before further flight.

(ii) Thereafter, perform repetitive dye penetrant inspections in accordance with Section IV of the ASB at intervals not to exceed 800 hours TIS, or 12 calendar months since last dye penetrant inspection, whichever occurs first.

(iii) If cracks are discovered that are not within the rework limits described in Section III of the ASB, before further flight remove the propeller from service and replace with a serviceable propeller.

(iv) If cracks are discovered that are within the rework limits described in Section III of the ASB, before further flight rework the propeller in accordance with Section III of the ASB, and resume inspecting repetitively in accordance with paragraph (a)(1)(ii) of this AD.

(2) For propellers with less than 3,000 hours TIS on the effective date of this AD, upon accumulating 3,000 hours TIS perform the steps required by paragraph (a)(1)(i) through (a)(1)(iv) of this AD.

(b) Paint camber side of the propeller in accordance with Section II or Section III of the ASB.

(c) Install propeller in accordance with Section V of the ASB.

#### **Alternative Methods of Compliance**

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office (CHACO). Operators must submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, CHACO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness

directive, if any, may be obtained from the CHIACO.

### **Special Flight Permits**

(e) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

### **Documents That Have Been Incorporated by Reference**

(f) The inspections, rework and replacement must be done in accordance with McCauley Propeller Systems Alert Service Bulletin (ASB) No. 221C, dated September 7, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from McCauley Propeller Systems, 3535 McCauley Drive, PO Drawer 5053, Vandalia, OH 45377-5053; telephone: 937-890-5246; fax: 937-890-6001. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

### **Effective Date**

(g) This amendment becomes effective on July 17, 2003.