

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. 97-CE-37-AD; Amendment 39-10365; AD 98-05-04]

RIN 2120-AA64

Airworthiness Directives; American Champion Aircraft Corp. Model 8GCBC Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes Airworthiness Directive (AD) 87-18-09, which currently requires inspecting (one-time) the sides of the front and rear wood spars for compression cracks on certain American Champion Aircraft Corp. (ACAC) Model 8GCBC airplanes, and repairing or replacing any wood spar with compression cracks. This AD requires repetitively inspecting the front and rear wood spars for damage, including installing any necessary inspection holes; and repairing or replacing any damaged wood spar. Damage is defined as cracks; compression cracks; longitudinal cracks through the bolt holes or nail holes; or loose or missing nails. This AD results from in-flight wing structural failure on one of the affected airplanes that was in compliance with the one-time inspection requirement of AD 87-18-09, plus 4 other ACAC Model 8GCBC accidents and 11 service difficulty reports (SDR's) of compression cracked spars. The actions specified by this AD are intended to detect compression cracks and other damage in the wood spar wing, which, if not corrected, could eventually result in in-flight structural failure of the wing with consequent loss of the airplane.

DATES: Effective April 17, 1998.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 17, 1998.

ADDRESSES: Service information that applies to this AD may be obtained from the American Champion Aircraft Corp., P.O. Box 37, 32032 Washington Avenue, Highway D, Rochester, Wisconsin 53167. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-37-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North

Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Mr. William Rohder, Aerospace Engineer, FAA, Chicago Aircraft Certification Office, 2300 E. Devon Avenue, Des Plaines, Illinois 60018; telephone: (847) 294-7697; facsimile: (847) 294-7834.

SUPPLEMENTARY INFORMATION:**Events Leading to the Issuance of This AD**

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to ACAC Model 8GCBC airplanes was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on September 26, 1997 (62 FR 50527). The NPRM proposed to:

- Supersede AD 87-18-09, Amendment 39-5725, which currently requires inspecting (one-time) the sides of the front and rear wood spars for compression cracks, repairing or replacing any wood spar with compression cracks, and re-inspecting immediately after any incident involving wing damage; and
- Require installing inspection holes on the top and bottom wing surfaces, repetitively inspecting the front and rear wood spars for damage, repairing or replacing any damaged wood spar, and installing surface covers.

Accomplishment of the proposed actions as specified in the NPRM would be as follows:

- Installations: in accordance with ACAC Service Letter 417, dated August 14, 1997;
- Inspections: in accordance with ACAC Service Letter 406, dated March 28, 1994; and
- Spar Repair and Replacement, as applicable: in accordance with Advisory Circular (AC) 43-13-1A, Acceptable Methods, Techniques and Practices; or other data that the FAA has approved for spar repair and replacement.

The NPRM was the result of in-flight wing structural failure on one of the affected airplanes that was in compliance with the one-time inspection requirement of AD 87-18-09, plus 4 other ACAC Model 8GCBC accidents and 11 service difficulty reports (SDR's) of compression cracked spars.

Interested persons have been afforded an opportunity to participate in the making of this amendment. One comment was received in support of the NPRM, and another comment was received that suggests that the FAA reconsider the NPRM. Due consideration has been given to the comment that suggests that the FAA

reconsider the NPRM. No comments were received on the FAA's determination of the cost impact upon the public.

Comment Disposition

The commenter believes that, based on years of experience and involvement with operating the Model 8GCBC airplane, the NPRM is not justified. The commenter explains that after 60,000 hours time-in-service (TIS) over 9 years (roughly about 7,000 hours TIS annually), 4 of the 6 airplanes in the fleet that the commenter operates were rebuilt to improve aesthetics and to give piece of mind that the airplanes were in good operating condition. Upon refurbishing, including inspections of the wood spars, no compression cracks in the wing spars were found. The commenter went on to state that damage was found as a result of a previous ground incident, but revealed no compression cracking. The commenter feels the FAA should withdraw the AD as currently written.

The FAA does not concur. Based on all data received, the FAA believes that wood spar compression cracks can occur with or without previous wing damage. The data indicates that detection of a compression crack on the sides of the spar is unlikely, unless the crack is in an advanced state of propagation. The FAA does not issue AD's based on individual operator's experiences. The FAA issues AD's after analyzing all safety information that is based on the design of the affected aircraft, such as testing, accident/incident reports, etc. Based on all of this data, the FAA believes that repetitive inspections are necessary and the proposed AD is necessary to assure the continued airworthiness of these airplanes. No changes have been made to the final rule based on this comment.

Revision to the Service Information

Based on information received from the field, ACAC has revised Service Letter 417 to the Revision B level (dated February 10, 1998). This revision retains the pertinent information presented in the original version of the service letter and Revision A to the service letter, and adds optional borescope inspections and fabric patches in place of removable covers. A recommendation to use optional removable inspection covers is included in the service bulletin. The FAA has determined that this revised service letter should be incorporated into the AD.

The FAA's Determination

After careful review of all available information related to the subject

presented above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed except for the addition of the service information described above and minor editorial corrections. The FAA has determined that this addition and these minor corrections will not change the meaning of the AD and will not add any additional burden upon the public than was already proposed.

Difference Between This AD and ACAC Service Letter 406

ACAC Service Letter 406, dated March 28, 1994, specifies the same inspections as are required in this AD. The differences between the service letter and the AD are:

—The service letter specifies the required action within the next 30 days or 10 flight hours and at each 100 hour/annual inspection thereafter. The FAA has determined that a more realistic compliance and enforceable compliance time would be to require the action within 3 calendar months after the effective date of the AD, and thereafter at intervals not to exceed 12 calendar months or 500 hours TIS, whichever occurs first; and

—The service letter applies to all ACAC 7 and 8 series airplanes, whereas the AD applies only to ACAC Model 8GCBC airplanes. The FAA is currently considering additional rulemaking action on the airplane models other than the Model 8GCBC airplanes.

Compliance Time of This AD

The compliance time of this AD is presented in calendar time and hours TIS. Although the unsafe condition specified in this AD is a result of airplane operation, the affected airplanes are utilized in different ways.

For example, an operator may utilize his/her airplane 50 hours TIS in a year while utilizing the aircraft in no or very little crop dusting operations, banner and glider tow operations, or rough field or float operations. This airplane operator would obviously experience less of a chance of high crack propagation than the airplane operator that utilizes his/her airplane 300 hours TIS in a year regularly in heavy crop dusting operations, banner and glider tow operations, or rough field or float operations. However, this airplane could have pre-existing and undetected wood spar damage that occurred during previous operations. In this situation, the damage to the wood spar would propagate at a level that depends on the operational exposure of the airplane and severity of the wood spar damage.

To assure that compression cracks do not go undetected on the wood spars of the affected airplanes, the FAA has determined that an initial 3 calendar month compliance time should be used. Repetitive actions will then be accomplished every 12 calendar months or 500 hours TIS, whichever occurs first.

Cost Impact

The FAA estimates that 261 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 8 workhours (Installations: 7 workhours; Initial Inspection: 1 workhour) per airplane to accomplish the required and optional action, and that the average labor rate is approximately \$60 an hour. Parts cost approximately \$170 per airplane, provided that each airplane would only need 6 additional standard inspection hole covers per wing bottom surface (total of 12 new covers per airplane) and 4 upper surface wing covers. If the airplane would require the installation of more inspection covers (i.e., a result of previous non-factory wing recover work), the cost could be slightly higher. Based on these figures, the total cost impact of this AD on U.S. operators is estimated to be \$169,650, or \$650 per airplane.

This cost figure is based on the presumption that no affected airplane owner/operator has accomplished the installations or the initial inspection. The FAA has no knowledge of any owner/operator of the affected airplanes that has already accomplished the installations and initial inspection.

This cost figure also does not account for repetitive inspections. The FAA has no way of determining the number of repetitive inspections each owner/operator of the affected airplanes will incur over the life of his/her airplane. However, each repetitive inspection will cost substantially less than the initial inspection if accomplishing the optional inspection hole and cover installations. The optional inspection covers allow easy access for the inspection of the wood spars, and the compliance time would enable the owners/operators of the affected airplanes to accomplish the repetitive inspections at regularly scheduled annual inspections.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does

not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive (AD) to read as follows:

98-05-04 American Champion Aircraft Corp.: Amendment 39-10365; Docket No. 97-CE-37-AD. Supersedes AD 87-18-09, Amendment 39-5725.

Applicability: Model 8GCBC airplanes, all serial numbers, certificated in any category, that are equipped with wood wing spars.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, repaired, or reconfigured in the area subject to the requirements of this AD. For airplanes that have been modified, altered, repaired, or reconfigured 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 (e) 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: Required as indicated in the body of this AD, unless already accomplished.

To detect possible compression cracks and other damage in the wood spar wing, which, if not corrected, could eventually result in in-flight structural failure of the wing with consequent loss of the airplane, accomplish the following:

(a) Within the next 3 calendar months after the effective date of this AD, accomplish the following:

(1) Install inspection holes in the top and/or bottom surface of each wing in accordance with American Champion Aircraft Corporation (ACAC) Service Letter 417, Revision B, dated February 10, 1998. No further action is required by this paragraph (paragraph (a)(1) of this AD) if inspection holes are installed in accordance with ACAC Service Letter 417, Revision A, dated October 2, 1997; or ACAC Service Letter 417, dated August 14, 1997.

(2) Inspect (detailed visual) both the front and rear wood wing spars for cracks; compression cracks; longitudinal cracks through the bolt holes or nail holes; and loose or missing nails (referred to as damage hereon). Accomplish these inspections in accordance with ACAC Service Letter 406, dated March 28, 1994.

(3) If any spar damage is found, prior to further flight, accomplish the following:

(i) Repair or replace the wood wing spar in accordance with Advisory Circular (AC) 43-13-1A, Acceptable Methods, Techniques and Practices; or other data that is approved by the FAA for wing spar repair or replacement.

(ii) If the wing is recovered, accomplish the installations required by paragraph (a)(1) of this AD, as applicable.

(4) Install inspection hole covers or fabric patches, as required, on the top and bottom surface of the wing in accordance with ACAC Service Letter 417, Revision B, dated February 10, 1998. No further action is required by this paragraph (paragraph (a)(4) of this AD) if inspection hole covers are installed in accordance with ACAC Service Letter 417, Revision A, dated October 2, 1997; or ACAC Service Letter 417, dated August 14, 1997.

(b) Within 12 calendar months or 500 hours time-in-service (TIS) (whichever occurs first) after accomplishing all actions required by paragraph (a), all subparagraphs included, of this AD, and thereafter at intervals not to exceed 12 calendar months or 500 hours TIS, whichever occurs first, accomplish the inspection, repair, replacement, and installation required by paragraphs (a)(2), (a)(3), as applicable; including its subparagraphs; and (a)(4) of this AD.

Note 2: The affected airplanes are not certificated for aerobatic maneuvers. AD 87-18-09 required a placard prohibiting aerobatic maneuvers in addition to the existing operational placard. The FAA encourages owners/operators of the affected airplanes to keep this placard installed on their airplanes.

(c) If any of the affected airplanes are involved in an incident or accident involving wing damage after the effective date of this AD, prior to further flight, accomplish the

inspection, repair, replacement, and installation required by paragraphs (a)(2), (a)(3), as applicable; including its subparagraphs; and (a)(4) of this AD.

(d) Special flight permits may be issued in accordance with sections 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 accomplished.

(e) An alternative method of compliance or adjustment of the initial or repetitive compliance time that provides an equivalent level of safety may be approved by the Manager, Chicago Aircraft Certification Office (ACO), 2300 E. Devon Avenue, Des Plaines, Illinois 60018.

(1) The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Chicago ACO.

(2) Alternative methods of compliance approved in accordance with AD 87-18-09 (superseded by this action) are not considered approved as alternative methods of compliance for this AD.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Chicago ACO.

(f) The installation required by this AD shall be done in accordance with American Champion Aircraft Corp. Service Letter 417, Revision B, dated February 10, 1998; American Champion Aircraft Corp. Service Letter 417, Revision A, dated October 2, 1997; or American Champion Aircraft Corp. Service Letter 417, dated August 14, 1997. The inspections required by this AD shall be done in accordance with American Champion Aircraft Corp. Service Letter 406, dated March 28, 1994. 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 the American Champion Aircraft Corp., P.O. Box 37, 32032 Washington Avenue, Highway D, Rochester, Wisconsin 53167. Copies may be inspected at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(g) This amendment (39-10365) supersedes AD 87-18-09, Amendment 39-5725.

(h) This amendment (39-10365) becomes effective on April 17, 1998.

Issued in Kansas City, Missouri, on February 23, 1998.

Marvin R. Nuss,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 98-5198 Filed 3-2-98; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97-CE-98-AD; Amendment 39-10367; AD 98-05-06]

RIN 2120-AA64

Airworthiness Directives; Pilatus Aircraft Ltd. Model PC-12 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Direct final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to certain Pilatus Aircraft Ltd. (Pilatus) Model PC-12 airplanes. This AD requires inspecting the elevator for incorrect rivet lengths and installing new rivets if incorrect rivet lengths are found. This AD also requires inspecting the elevator to assure that an excessive gap (more than .004 inches or .1 millimeters (mm)) does not exist in the rivet shanks, and installing a shim between the rib and skin to fill any excessive gap. This AD is the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for Switzerland. The actions specified in this AD are intended to prevent fatigue damage to the elevator, which could result in structural failure and eventual loss of control of the airplane.

DATES: Effective May 29, 1998.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 29, 1998.

Comments for inclusion in the Rules Docket must be received on or before April 3, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-98-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Service information that applies to this AD may be obtained from Pilatus Aircraft Ltd., Marketing Support Department, CH-6370 Stans, Switzerland; telephone: +41 41-6196 233; facsimile: +41 41-6103 351. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-98-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106; or at the Office of the Federal