Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-779; AD 69-12-04

Airworthiness Directives; Bellanca Model 14-19-3A and **17-30** Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 13, 1969.

Regulatory Information

69-12-04 BELLANCA: Amdt. 39-779. Applies to Models 14-19-3A (Serial Numbers 4229 thru 4342) and **17-30** (Serial Numbers 30001 thru 30164) Airplanes.

Compliance: Required as indicated.

To prevent failures of the stabilizer rear strut clevises, unless already accomplished, perform either A or B below:
A) Within 25 hours' time-in-service after the effective date of this airworthiness directive, and thereafter at intervals of not to exceed 25 hours' time-in-service from the date of the last inspection, conduct a magnetic particle inspection of both P/N 193101-9 rear strut attach clevises in the area of the threaded shank. The clevises must be removed from the airplane to perform the inspection. If a crack is found during any inspection, before further flight, perform the replacement required by Paragraph B of this airworthiness directive.

B) Within 25 hours' time-in-service after the effective date of this airworthiness directive, replace both P/N 193101-9 rear strut attach clevises with redesigned P/N 193130 rear strut attach clevises, in accordance with instructions contained in Bellanca Service Letter No. 50, dated May 28, 1969, or any other method approved as an equivalent by the Chief, Engineering & Manufacturing Branch, Federal Aviation Administration, Central Region.

C) When the replacement described in Paragraph B of this airworthiness directive has been accomplished on both rear strut attach clevises, the inspections required by Paragraph A of this airworthiness directive are no longer required.

This amendment becomes effective June 13, 1969.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Docket No. 93-ANE-28; Amendment 39-8603; AD 93-10-02

TELEDYNE CONTINENTAL MOTORS Models (TCM) O-200, O-300, IO/TSIO/LTSIO-360, O/IO/TSIO-470, IO/TSIO/LTSIO/GTSIO-520, and IO/TSIO/TSIOL-550 Series Engines

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 12, 1993.

Regulatory Information

93-10-02 TELEDYNE CONTINENTAL MOTORS: Amendment 39-8603. Docket 93-ANE-28.

Applicability: Teledyne Continental Motors (TCM) O-200, O-300, IO/TSIO/LTSIO-360, O/IO/TSIO-

470, IO/TSIO/LTSIO/GTSIO-520, and IO/TSIO/TSIOL-550 series reciprocating engines listed by serial number in TCM Mandatory Service Bulletin (MSB) No. 93-12, dated May 12, 1993, or that contain cylinder assemblies purchased from TCM between July 29, 1992, and March 30, 1993; installed on but not limited to: Aeronca Models 15AC and S15AC; American Champion (Bellanca) Models 7ACA and 402; Beagle Model 206S; Beech Models Debonaire, Bonanza, and Baron; Bellanca Models 14-19, 14-19-2, 14-19-3, 14-19-3A, **17-30**, 17-31, and 17-31TC; Cessna Models 150, 170, 172, 180, 182, 185, 188, 205, 206, 207, 210, 303, 310, 320, 335, 336, 337, 340, 401, 402, 404, 414, 421, and T41; Aero Commander Models 200, 500, and 685; Champion Models Citabria and Lancer; Maule Models Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4-210, M-4-210C, M-4-210S, M-4-210T, and M-5-210C; Mooney Models 231 and 252; Navion series; Piper Models Arrow, Seneca, and PA46-310P; and Taylorcraft Model F-19 aircraft.

Compliance: Required prior to further flight, unless previously accomplished.

To prevent an engine failure due to a missing cylinder valve retainer key, accomplish the following:

(a) For engines that have less than 25 hours time in service (TIS), or unknown TIS, on the effective date of the AD since new, rebuild, or factory overhaul, visually inspect each cylinder to determine if both valve retainer keys are in place on each valve, and if the roto coil, if applicable, is properly positioned, in accordance with TCM MSB No. 93-12, dated May 12, 1993. NOTE: Certain TCM engine models do not incorporate roto coils in the valve assembly.

(1) If a valve retainer key is missing, or if a roto coil, if applicable, is mispositioned, repair or replace the cylinder, as necessary, in accordance with the applicable TCM Overhaul Manual.

(2) If the valve retainer keys are in place, and the roto coil, if applicable, is correctly positioned, return engine to service in accordance with TCM MSB No. 93-12, dated May 12, 1993.

(b) For engines with individually installed new service or chrome plated cylinder assemblies purchased from TCM between July 29, 1992, and March 30, 1993, that have less than 25 hours TIS on the effective date of this AD since installation of any cylinder(s), visually inspect each new service or chrome plated cylinder, and repair or replace the cylinder, as necessary, in accordance with paragraph (a) of this AD.

(c) Uninstalled cylinder assemblies purchased from TCM between July 29, 1992, and March 30, 1993, must be inspected and repaired, as necessary, in accordance with paragraph (a) of this AD prior to installation on an engine.

(d) For engines that have 25 hours or more TIS on the effective date of this AD, since new, rebuild, or factory overhaul, no inspection is required.

(e) 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, Atlanta Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft Certification Office. NOTE: Information concerning the existence of approved alternative methods of compliance with this airworthiness

directive, if any, may be obtained from the Atlanta Aircraft Certification Office.

(f) The inspections shall be done in accordance with the following service bulletin:

Document No.	Pages	Revision	Date
TCM MSB No. 93-12	1-7	Original	May 12, 1993
Total pages: 7.			

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 Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601; telephone (205) 438-3411 ext. 305, fax (205) 438-3411 ext. 179. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief 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.

(g) This amendment becomes effective August 12, 1993, to all persons except those persons to whom it was made immediately effective by priority letter AD 93-10-02, issued May 17, 1993, which contained the requirements of this amendment.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2440; AD 75-24-14

Airworthiness Directives; Societe Nationale Industrielle Aerospatiale Models SE-3130, SE-313B, SA-315B, SE-3160, SA-316B, SA- 316C, SA-3180, SA-318B, SA-318C, and SA-319B Helicopters

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective October 30, 1975.

Regulatory Information

75-24-14 SOCIETE NATIONALE INDUSTRIELLE AEROSPATIALE: Amendment 39- 2440. Applies to Alouette Helicopters SE-3130, SE-313B, SA-315B, SE-3160, SA-316B, SA- 316C, SA-3180, SA-318B, SA-318C, and SA-319B equipped with main rotor hydraulic dampers P/N

3130S.13.60.000.

Compliance is required as indicated, unless already accomplished.

To prevent excessive vibration or ground resonance, accomplish the following:

(a) Prior to October 30, 1975, modify and reidentify main rotor hydraulic dampers P/N 3130S.13.60.000 in accordance with subparagraphs 2B(1), 2B(2), and 2(c) of Lama Service Bulletin No. 65.20 dated July 4, 1975, for Model SA-315B and Alouette Service Bulletin No. 65.107 dated July 4, 1975, for the other designated models, or equivalents approved by the Chief, Aircraft Certification Staff, FAA, Europe, Africa, and Middle East Region, c/o American Embassy, APO New York, New York, N.Y. 09667.

(b) Prior to further flight, for Models SA-3160, SA-316B, SA-316C, and SA-319B, remove the placard required by AD 75-**17-30**, if installed, and install a temporary placard on the instrument panel, in full view of the pilot, reading as follows: "Maximum density altitude: 8200 feet". Temporary placard may be removed upon accomplishment of paragraph (a) of this AD.

(Alouette Service Bulletin No. 01.39 also refers to paragraph (b) of this AD).

This AD supersedes Amendment 39-2335 (40 FR 33010), AD 75-**17-30**.

This amendment is effective upon publication in the FEDERAL REGISTER as to all persons except those persons to whom it was made immediately effective by telegram dated September 30, 1975, which contained this amendment.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Docket No. 97-ANE-48-AD; AD 98-01-08 E

TELEDYNE CONTINENTAL MOTORS Models IO-520-A, TSIO-520-A, O-470-B, IO-470-B, and IO-550-B Series Engines

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

FOR FURTHER INFORMATION CONTACT: Richard D. Karanian, Aerospace Engineer, Special Certification Office, FAA, Rotorcraft Directorate, 2601 Meacham Blvd., Ft. Worth, TX 76137-4298; telephone (817) 222-5195, fax (817) 222-5785.

98-01-08 Teledyne Continental

This priority letter Airworthiness Directive (AD) is applicable to Teledyne Continental Motors (TCM) IO-520 series, TSIO-520 series, O-470 series, and IO-550 series reciprocating engines, with Performance Engineering exhaust roller rocker arms, Part Number (P/N) PE92E, installed, in accordance

with Supplemental Type Certificate (STC) SE8594SW. This AD is prompted by reports of broken exhaust roller rocker arms. The investigation revealed that these exhaust roller rocker arms had failed due to oil galleries drilled off center during manufacturing, too close to the outside edge. In addition, tests disclosed that the compositional requirements of the exhaust roller rocker arms did not meet hardness specifications. This condition, if not corrected, could result in exhaust roller rocker arm failure, which can result in bent push rods, ruptured rocker arm covers, loss of engine oil, engine power loss and roughness, and possible engine failure.

Since an unsafe condition has been identified that is likely to exist or develop on other engines of this same type design, this AD requires, within 25 hours time in service (TIS) after receipt of this priority letter AD, removal from service of all affected exhaust roller rocker arms. The correct location of the oil gallery holes cannot be visually determined, so the FAA has determined that all affected parts must be removed from service. The STC owner is no longer in business producing new parts, therefore all replacement parts must be from TCM.

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958) pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this priority letter.

Regulatory Information

98-01-08 TELEDYNE CONTINENTAL MOTORS with STC SE8594SW: Priority Letter issued on December 23, 1997. Docket No. 97-ANE-48-AD.

Applicability: Teledyne Continental Motors (TCM) IO-520-A, -B, -BA, -C, -CB, -D, -E, -F, -K, -L, -M, -MB, -J; TSIO-520-A, -B, -D, -E, -F, -G, -H, -J, -K, -L, -M, -N, -P, -R, -T, -U, -UB, -AF, -CE, -VB, -WB, -NB, -LB, -KB, -JB, -EB, -DB, -BB; O-470-B, -G, -K, -L, -M, -P, -R, -S, -U; IO-470-C, -D, -E, -F, -G, -H, -L, -M, -N, -P, -R, -S, -U, -V; and IO-550-B, -C, and -G series reciprocating engines, with Performance Engineering exhaust roller rocker arms, Part Number (P/N) PE92E, installed, in accordance with Supplemental Type Certificate (STC) SE8594SW. These engines are installed on but not limited to Cessna 180, 182, 185, 206, 207, 210, 310, 335, 340, 401, 402, 414; Raytheon (Beech) 33, 35, 36, 55, 58; Bellanca **17-30**; New Piper PA-46; Fletcher FU-24A aircraft.

Note 1: This airworthiness directive (AD) applies to each engine 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 engines 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 (b) 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, unless accomplished previously.

To prevent exhaust roller rocker arm failure, which can result in bent push rods, ruptured rocker arm covers, loss of engine oil, engine power loss and roughness, and possible engine failure, accomplish the following:

(a) Within 25 hours time in service after the effective date of this AD, remove from service all Performance Engineering exhaust roller rocker arms, P/N PE92E, and replace with serviceable parts, as follows:

(1) For IO-520, TSIO-520, O-470, IO-470, and all IO-550 series engines except the IO-550-G, replace with serviceable TCM exhaust roller rocker arms, P/N 652130.

(2) For IO-550-G series engines, replace with serviceable TCM exhaust roller rocker arms, P/N 652966.

(b) 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, Special Certification Office. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Special Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Special Certification Office.

(c) 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 aircraft to a location where the requirements of this AD can be accomplished.

(d) Priority Letter AD 98-01-08, issued December 23, 1997, becomes effective upon receipt.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 66747 11/30/99]

Docket No. 98-CE-87-AD; Amendment 39-11434; AD 99-24-10

RIN 2120-AA64

Airworthiness Directives; Precise Flight, Inc. Model SVS III Standby Vacuum Systems
PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to all aircraft equipped with Precise Flight, Inc. Model SVS III standby vacuum systems installed in accordance with the applicable supplemental type certificate (STC) or through field approval. This AD requires incorporating revised operating limitations for the affected standby vacuum systems into the airplane flight manual (AFM), and repetitively inspecting the push-pull cable, vacuum lines, saddle fittings, and shuttle valve for correct installation and damage (wear, chafing, deterioration, etc.). This AD also requires immediately correcting any discrepancy found and conducting a function test of the vacuum system after the inspections. This AD is the result of reports of shuttle valve failure and standby vacuum system malfunction on aircraft. The actions specified by this AD are intended to detect and correct problems with the standby vacuum system before failure or malfunction and to provide operating procedures for the pilot regarding the use and limitations of this system.

DATES: Effective January 14, 2000.
The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 14, 2000.

ADDRESSES: Service information that applies to this AD may be obtained from Precise Flight, Inc., 63120 Powell

Butte Road, Bend, Oregon 97701; telephone: (800) 547-2558. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-CE-87-AD, 901 Locust, Room 506, 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: Ms. Dorothy Lundy, Aerospace Engineer, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW, Renton, Washington 98055-4065; telephone: (425) 227-2260; facsimile: (425) 227-1181.

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 all aircraft equipped with Precise Flight, Inc. Model SVC III standby vacuum systems installed in accordance with the applicable supplemental type certificate (STC) or through field approval was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on July 7, 1999 (64 FR 36618). The NPRM proposed to require incorporating revised operating limitations for the affected standby vacuum systems into the airplane flight manual (AFM), and repetitively inspecting the push-pull cable, vacuum lines, saddle fittings, and shuttle valve for correct installation and damage (wear, chafing, deterioration, etc.). The NPRM also proposed to require immediately correcting any discrepancy found and conducting a function test of the vacuum system after each inspection.

The NPRM was the result of reports of shuttle valve failure and standby vacuum system malfunction on aircraft.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

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 minor editorial corrections. The FAA has determined that 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.

Compliance Time of This AD

The compliance times of this AD are presented in calendar time. Although malfunction or failure of the standby vacuum systems is only unsafe while the aircraft is in flight, the condition is not a direct result of repetitive aircraft operation. The unsafe condition could exist on a standby vacuum system installed on an aircraft with only 50 hours time-in-service (TIS), but may not develop on another standby vacuum system installed on an aircraft until 1,000 hours TIS. The inspection compliance times are utilized to coincide with annual inspections so as to allow the owner/operator of the aircraft to have the required action accomplished at a time when he/she has already scheduled maintenance activities.

Cost Impact

The FAA estimates that 10,000 standby vacuum systems will be affected by this AD, that it will take approximately 3 workhours per vacuum system to accomplish the actions, and that the average labor rate is approximately $60 an hour. Based on these figures, the total cost impact of this AD on U.S. operators is estimated to be $1,800,000, or $180 per airplane.

These figures only take into account the costs of the initial inspection and initial functional test of the standby vacuum systems; subsequent inspections and functional tests and any corrective actions are not included in the cost impact.

The FAA has no way of determining the number of repetitive inspections and functional tests each airplane owner/ operator will incur over the life of an airplane incorporating one of the affected standby vacuum systems. The FAA also has no way of determining the number of standby vacuum systems that will require corrective action based on the inspection results.

Regulatory Impact
This rule does not have Federalism implications as defined in Executive Order No. 13132. This means it does 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. The FAA has not consulted with state authorities prior to publication of this rule. 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:

Regulatory Information

99-24-10 PRECISE FLIGHT, INC.: Amendment 39-11434; Docket No. 98-CE-87-AD. Issued November 15, 1999.
Applicability: Model SVS III standby vacuum systems, installed on, but not limited to, the aircraft listed in the following chart. These systems can be installed either in accordance with the applicable supplemental type certificate (STC) or through field approval:

Affected STC	Make and Model Airplanes
SA2160NM	Raytheon Beech Models 23, A23, A23A, A23-19, 19A, B19, B19A, A23-24, B23, C23, A24, A24R, B24R, C24R, 35, A35, B35, C35, D35, E35, F35, G35, 35R, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, 36, A36, A36TC, B36TC, 4S(YT-34), A45(T-34A, B-45), D45(T-34B), and 77 Series
SA2161NM	Raytheon Beech Model V35B

SA2162NM	Cessna Models 120, 140, 140A, 150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, A150L, 150M, 152, A152, A150K, A150M, 170, 170A, 170B, 172, 172A, 172B, 172C, 172D, 172E, 172F (USAFT-41A), 172G, 172H(USAFT-41A), 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 175, 175A, 175B, 175C, P172D, R172E (USAFT-41B, USAFT41-3, and USAFT-41D), R172F (USAFT-41D and USAFT-41C), R172G (USAFT-41D), R172H (USAFT-41D), R172J, R172K, 172RG, 177, 177A, 177B, 177RG, 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K, 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 182RG, T182, T182RG, T182R, 185, 185A, 185B, 185C, 185D, 185E, A185E, A185F, 188, 188A, 188B, A188, A188B, T188C, 206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D. TP206E, U206-A, U206-B, U206-C, U206-D, U206-E, U206-F, U206G, TU206-A, TU206-B, TU206-C, TU206-D, TU206-E, TU206-F, TU206-G, 207, 207A, T207, T207A, 210, 210A, 210B, 210C, 210D, 210E, 210F, 210-5 (205), 210-5A (205A), T210F, 210G, T-210G, 210H, T-210H, 210J, 205P, T-210J, 210K, T-210K, T210L, 210L, 210M, T210M, 210N, P210N, T210N, 205T, 210R, P210R, 205U, T210R, 210-5, 210-5A, 305A (USAF 0-1A), 305C (USAF 0-1E), 305D (USAF 0-1F), 305F, 305B (USAF T0-1D), 305E (0-1D or 0-1F), and 321 (Navy 0E-2)
SA2163NM	Cessna Model U206G
SA2164NM	Cessna Model 180Q
SA2166NM	Cessna Model 177
SA2167NM	The New Piper Aircraft, Inc. (Piper) Models L-14, PA-12, PA-12S, PA-14, PA-15, PA-16, PA-16S, PA-17, PA-18, PA-18A, PA-18S, PA-18-105 (Special), PA-18S-105(SP), PA-18-125 (Army L-21A), PA-18AS-125, PA-18S-125, PA-18-135, PA-18A-135, PA-18AS-135, PA-18S-135, PA-18-150, PA-18A-150, PA-18AS-150, PA-18S-150, PA-19 (Army L-18C), PA-19S, PA-20, PA-20S, PA-20-115, PA-20S-115, PA-20-135, PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-160, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-25, PA-25-235, PA-25-260, PA-32-260, PA-32RT-300, PA-32RT-301T, PA-32-300, PA-32RT-300T, PA-32-301, PA-32S-300, PA-32R-301, PA-32-301T, PA-32R-300, PA-32R-301T, PA-28-140, PA-28-141, PA-28-150, PA-28-151, PA-28-160, PA-28S-160, PA-28-180, PA-28R-180, PA-28S-180, PA-28-235, PA-28S-235, PA-28-181, PA-28-161, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28-236, PA-28RT-201, PA-28RT-201T, PA-28-201T, PA-36-285, PA-36-300, PA-36-375, PA-38-112, and PA-46-310P
SA2168NM	Mooney Models M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20M, and M22
SA2683NM	Aerocar, Inc. Model I Aerodifusion, S.L. Model Jodel D-1190S Aeromere, S.A. Model Falco F.8.L. Aeronautica Macchi S.P.A. Models AL60, AL60-B, AL60-F5, and AL60-C5 Aeronautica Macchi & Aerfer Model AM-3 Aeronca Inc. Models 15AC and S15AC Aerospatiale Model TB20 Trinidad Arctic Aircraft Co., Inc. Models S-1A, S-1A-65F, S-1A-85F, S-1A-90F, S-1B1(Army L-67 XL-6), and S-1B2 Avions Mudry et Cie Model CAP 10B American Champion Models (Bellanca, Aeronca) 7AC, 7ACA, S7AC (L-16A), 7BCM (L-16B), 7CCM, 7DC, S7DC, 7EC, S7EC, 7ECA, 7FC, 7GC, 7GCA, 7GCCA, 7GCB, 7GCBA, 7GCBC, 7HC, 7JC, 7KC, 7KCAB, 8KCAB, 8GCBC, 11AC, S11AC, 11BC, S11BC, 11CC, and S11CC Bellanca Aircraft Corporation Models 14-9, 14-9L, 14-12F-3, 14-13, 14-13-2, 14-13-3, 14-13-3W,

	14-19, 14-19-2, 14-19-3A, **17-30**, 17-31, 17-31TC, **17-30**A, 17-31A, and 17-31ATC Biemond, C. Model Teal CB1 Board, G.R. Models Columbia XJL-1 and Bolkow Jr. Clark Aircraft, Inc. Models 12 and 1000 Falcon Aircraft Corporation Model F-1 Flug und Fahrzeugwerke AG Model AS 202/15 “Brand” Found Brothers Model FBA-2C Fuji Heavy Industries Models FA-200-160, FA-200-180, and FA-200-180AO Funk Aircraft Model Funk C Kearns, Edward Scott (Garcia, Henry S.) Model (Emigh) Trojan A-2 Swift Museum Foundation, Inc. Model (Globe) GC-1A, GC-1B Goodyear Aircraft Model GA-22A Great Lakes Aircraft Model 2T-1A-1 and 2T-1A-2 Grumman American Models G-164, G-164A, G-164B, AA-1, AA-1A, AA-1B, AA-1C, AA-5, AA-5A, and AA-5B Commander Aircraft (Gulfstream) Models 112, (112A, 112B, 112TC, 112TCA, 114, and 114A Helio Enterprises Models H-250, H-295 (USAF U-10D),H-391 (USAF YL-24), H-395 (SAF L-28A), H-395A, HT-295, and H-700 Prop-Jets, Inc. (Interceptor Corp., Aero Commander, Meyers) Models 200, 200A, 200B, 200C, and 200D C. Itoh Aircraft Maintenance & Engineering Co. LTD. Model N-62 Jamieson Corporation Model J-2-L1B Jodel, Avion Models D-140-B, DR-1050, D-1190, and 150 Lake Models C-1, C-2-IV, LA-4, LA-4-200, and LA-4-250 Luscombe Aircraft Corp. Models 8, 8A, 8B, 8C, 8D, 8E, 8F, T-8F, and 11A Maule Aerospace Technology Corp. Models Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4-180C, M-4-180S, M-4-210, M-4-201C, M-4-210S, M-4-210T, M-4-220S, M-4-220T, M-5-180C, M-5-200, M-5-210C, M-5-210TC, M-T-220C, M-5-235, M-5-235C, M-6-180, M-6-235, M-7-235, MX-7-180, MX-7-235 Messerschmitt-Bolkow Models BO-209-150 FV&RV, BO209-160 FV&RV, BO-209, and 150OFF Nardi S.A. Model FN-333 Jimmie Thompson Enterprise (Navion Rangemaster Aircraft Corporation) Models Navion (L-17A) Navion A (L-17B, L-17C), Navion B, D, E, F, G, and H White International Ltd. Models (Pitts) S-1S, S-1T, S-2, and S-2A Procaer S.P.A. Models F 15/B, F 15/C, and F 15/E Gulfstream Aerospace Corporation (Rockwell) Models 111, 112, 112B, 112TC, 112TCA, and 114 Aermacchi S.p.A Models S.205, S.205-18F, S.205-18/R, S.205-20/F, S.205-20/R, S.205-22/R, S.208, S.208A, F.260, and F.260B Socata - Groupe Aerospatiale Models Rallye Series MS880B, MS885, MS892-A-150, MS892E-150, MS893A, MS893E, MS894A, MS894E, TB9,TB10, and TB21 Stinson Models 108-2 and108-3 Sud Aviation Models Gardan GY.80-1500, GY.80-160, and GY.80-180
SA2683NM (Cont'd.)	Taylorcraft Aircraft Company Models F19, F21, and F21A Univair Aircraft Corporation (Forney) Models F-1, F-1A, (ERCO)E, 415D, (ALON)A-2, A20a, (Mooney)M10, (Mooney) (ERCO) 415-C, and 415-CD Augustair, Inc. (Varga Aircraft Corporation) Models 2150, 2150A, and 2180

NOTE 1: The above list includes the aircraft where the Precise Flight, Inc. Model SVS III standby vacuum systems

could be installed through STC. This list is not meant to be exhaustive nor does it include all aircraft with the systems installed through field approval.

NOTE 2: This AD applies to any aircraft with a standby vacuum system installed that is 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 aircraft 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 (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 and correct problems with the standby vacuum system before failure or malfunction and to provide operating procedures for the pilot regarding the use and limitations of this system, accomplish the following:

(a) Within the next 30 calendar days after the effective date of this AD, accomplish whichever (paragraph (a)(1) or (a)(2) below) of the following that applies:

(1) For airplanes with the affected standby vacuum system installed in accordance with the applicable STC, incorporate the applicable Precise Flight, Inc. Airplane Flight Manual Supplement (AFMS) for Standby Vacuum Systems (each document corresponds with the applicable STC as presented in the chart below) into the Airplane Flight Manual (AFM), including installing all placards specified in these AFMS's; or insert a copy of the Appendix to this AD into the AFM, including installing all placards specified in the Appendix:

Applicable STC	**AFMS Date**
SA2160NM	May 7, 1998
SA2161NM	August 6, 1998
SA2162NM	August 6, 1998
SA2163NM	August 6, 1998
SA2164NM	August 6, 1998
SA2166M	August 6, 1998
SA2167NM	August 6, 1998
SA2168NM	August 6, 1998
SA2683NM	August 6, 1998; or

(2) For airplanes with the affected standby vacuum system installed through field approval, insert the Appendix to this AD into the AFM, including installing all placards specified in the Appendix.

(b) Within the next 12 calendar months after the effective date of this AD, and thereafter at intervals specified in the following paragraphs, inspect the push-pull cable, vacuum lines, saddle fittings, and shuttle valve for correct installation and damage (wear, chafing, deterioration, etc.). Accomplish these inspections in accordance with Precise Flight Instructions for Continued Airworthiness (Section 3.3 of Installation Report No. 50050), Revision 25, dated August 26, 1996.

(1) Reinspect the push-pull cable, vacuum lines, and saddle fittings at intervals not to exceed 12 calendar months; and

(2) Reinspect the shuttle valve at intervals not to exceed 24 calendar months.

(c) Prior to further flight after each inspection required by paragraph (b) of this AD, accomplish the following in accordance with Precise Flight Instructions for Continued Airworthiness (Section 3.3 of Installation Report No. 50050), Revision 25, dated August 26, 1996.

(1) Correct any discrepancy found; and

(2) Conduct a function test of the vacuum system and assure proper function.

(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 times that provides an equivalent level of safety may be approved by the Manager, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue, SW, Renton, Washington 98055-4065. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

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

(f) The inspections, corrections, and test required by this AD shall be done in accordance with Precise Flight Instructions for Continued Airworthiness (Section 3.3 of Installation Report No. 50050), Revision 25, dated August 26, 1996. 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 Precise Flight, Inc., 63120 Powell Butte Road, Bend, Oregon 97701. Copies may be inspected at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(g) This amendment becomes effective on January 14, 2000.

APPENDIX TO AD 99-24-10

SYSTEM DESCRIPTION

A Precise Flight Standby Vacuum System may be installed to provide a temporary vacuum system in the event of a primary vacuum failure. The Standby Vacuum System operates on the differential between the intake manifold and ambient air pressure and is directed through a shuttle valve system to drive your flight instruments.

I. OPERATING LIMITATIONS

A. INSTRUCTIONS

1. The Standby Vacuum System is for emergency or standby use only and not for dispatch purposes.
2. Vacuum powered and/or Vacuum gyro directed autopilot operation may be unreliable when the Standby Vacuum System is the sole source of vacuum. Vacuum powered or vacuum gyro directed autopilot should be **OFF** when operating with a failed primary vacuum system.
3. The Supplemental Vacuum System is not designed to operate pneumatic de-ice systems. DO NOT operate a pneumatic de-ice system when operating with a failed primary vacuum system.
4. Above 10,000 ft. pressure altitude, engine power settings may have to be significantly reduced to provide adequate vacuum power for proper gyro instrument operation.
5. The following placards are required to be in full view of pilot:

APPENDIX TO AD 99-24-10 (Continued)

PRECISE FLIGHT, INC.
AFMS for STANDBY VACUUM SYSTEM

I. OPERATING LIMITATIONS (CONT.)

B. PLACARDS

Placard to be located on the push/pull control cable

Placard to be located around the LED for the pump inop warning light.

Placard to be placed in front and in full view of the pilot.

STANDBY VACUUM SYSTEM EQUIPPED: FOR OPERATING INSTRUCTIONS AND LIMITATIONS SEE SUPPLEMENT IN OWNERS MANUAL OR PILOTS OPERATING HANDBOOK

I. OPERATING LIMITATIONS (CONT.)

B. PLACARDS

One of the following placards must be placed in full view of the pilot near the instrument vacuum indicator after appropriate entries have been made.

Approximate Standby Vacuum Available - Altitude - Power Chart for aircraft with Constant Speed Propeller - Maximum Continuous RPM.

PRESS ALT. (FT.)	RPM	MAN. PRESSURE	SVS VACUUM IN. HG MIN.
2000	Max. Cont.		
4000	Max. Cont.		
6000	Max. Cont.		
8000	Max. Cont.		
10,000	Max. Cont.		

Approximate Standby Vacuum Available - Altitude - Power Chart for aircraft with a Fixed Pitch Propeller

PRESS ALT. (FT.)	RPM	SVS VACUUM IN. HG MIN.
2000		
4000		
6000		
8000		
10,000		

II. OPERATING PROCEDURES

A. NORMAL PROCEDURES

1. GROUND CHECK

a. Cycle the Standby Vacuum Control Knob OUT - **ON** - , and return Control Knob IN - **OFF** - position.

2. BEFORE TAKEOFF

a. Idle Engine at low speed, momentarily pull the standby vacuum knob out - **ON** - and check vacuum gauge. Normally, the vacuum reading will be slightly higher. After checking system push Standby Vacuum System knob IN - **OFF** -. Check that vacuum gauge has returned to the previous reading.

3. ENROUTE

a. Regularly check vacuum gauge and monitor warning light for proper vacuum system operation.

B. EMERGENCY PROCEDURES

1. PRIMARY VACUUM FAILURE WARNING LIGHT ILLUMINATES

a. Pull the Standby Vacuum System knob OUT -ON- and adjust throttle setting as required to maintain adequate vacuum for the primary instruments - Suction Gauge Reading in the Green Arc - If necessary descend to a lower altitude to obtain a larger differential between manifold and ambient pressure. Vacuum power must be closely monitored by checking the vacuum gauge frequently.

b. The SVS is not designed for continued IFR flight. Immediate steps should be taken to return to VFR conditions or to land. If this is not possible, IFR flight should be continued only as long as necessary to return to VFR conditions or land the airplane.

WARNING: FAILURE OF THE VACUUM SYSTEM STILL CONSTITUTES AN EMERGENCY SITUATION REGARDLESS OF THE INSTALLATION OF THE SVS. IT MAY NOT BE POSSIBLE TO MAINTAIN A SAFE ALTITUDE AND MAKE USE OF THE SVS. IN SUCH A SITUATION THE AIRPLANE MUST BE FLOWN USING NON-VACUUM POWERED INSTRUMENTS.

c. If descent is impractical:

- Periodically and temporarily reduce power as required to provide adequate vacuum to the aircraft primary instruments.
- Reapply power as required, while comparing vacuum driven gyros against the Turn and Bank Indicator, Turn Coordinator, VSI and/or other flight instruments.
- When an obvious discrepancy is noted between the vacuum driven instruments and other flight instrumentation, Periodically and temporarily reduce power as required to provide adequate vacuum to the aircraft primary instruments.

III. PERFORMANCE

NO CHANGE

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NE-35-AD; Amendment 39-12421; AD 2001-**17-30**]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney JT9D-7R4 Series Turbofan Engines
PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to Pratt & Whitney JT9D-7R4 series turbofan engines. This amendment requires initial and repetitive fluorescent penetrant inspection (FPI) of the high pressure turbine (HPT) 1st stage disk aft lugs, and if the aft lug(s) are cracked, replacement of the HPT 1st stage disk and HPT 1st stage airseals. Also, for certain configuration HPT disk assemblies, this amendment requires replacement of the HPT 1st stage airseals with newly designed airseals at the next accessibility. This amendment is prompted by reports of cracks in HPT 1st stage disk firtrees and failure of firtree lugs. The actions specified by this AD are intended to prevent 1st stage HPT disk firtree fracture, which could result in an uncontained engine failure, and damage to the airplane.

DATES: Effective date October 4, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-6600, fax (860) 565-4503. This information may be examined 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.

FOR FURTHER INFORMATION CONTACT: Peter White, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781)
238-7128, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to Pratt & Whitney JT9D-7R4 series turbofan engines was published in the **Federal Register** on February 27, 2001 (66 FR 12440). That action proposed to require initial and repetitive fluorescent penetrant inspection (FPI) of the high pressure turbine (HPT) 1st stage disk aft lugs, and if the aft lug(s) are cracked, replacement of the HPT 1st stage disk and HPT 1st stage airseals. Also, for certain configuration HPT disk assemblies, this action proposed to require replacement of the HPT 1st stage airseals with newly designed airseals at the next accessibility.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Clarifications Requested

One commenter addresses four issues:

- First, the commenter states that there is confusion regarding the phrase "before the latest of" which the commenter interprets to mean "whichever comes last." The commenter is correct. The phrase means whichever of the two cyclic limits occurs last.
- Secondly, the commenter states that clarification is needed for "initial F.P.I." because there is a difference between FPI as it is proposed in the NPRM and as it is described in applicable Pratt & Whitney service bulletins. The commenter wants to know if the standard SPOP84 full disk FPI inspection at HPT overhaul fulfills the requirements of the NPRM. It is the intent of this AD that the disk lug be inspected for cracks. The full disk FPI covers the requirement.
- Thirdly, the commenter states that the NPRM requires that airseal P/N 820121 must be installed on HPT part number (P/N) 787521 (powder metal disks) at the next hot section shop visit as described in Pratt & Whitney (PW) Service Bulletin (SB) JT9D-7R4-72-566. However, the commenter notes that the initial and repetitive inspection requirement of SB JT9D-7R4-72-567 remains unchanged. The commenter requests that the FAA delete the requirement to install the new airseals per SB JT9D-7R4-72-

566. The FAA disagrees. The newer airseals offer a significant benefit in life over the older airseals. Though it is not stated explicitly in SB JT9D-7R4-72-567, there are no inspection limits for powder disks with the older sideplates, as it is assumed that they are all removed from service and replaced with the new sideplates per SB JT9D-7R4-72-566. Under this AD, there will be no requirement to inspect the older sideplates as they will be removed from service by paragraph (a) of this rule.

- Finally, this commenter and two others note that the compliance for airseal P/N 820121 installation is specified as "at the next hot section shop visit," which is further defined as "any time the HPT rotor is disassembled." However, SB JT9D-7R4-72-566 specifies installation at piece-part opportunity. The FAA agrees and paragraph (e) will be changed to "at disk piece-part opportunity."

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Analysis

There are approximately 324 engines of the affected design in the worldwide fleet. The FAA estimates that 47 engines installed on aircraft of U.S. registry would be affected by this proposed AD. Although forced engine removals are not anticipated the first year as a result of this proposed action, a maximum of two removals will be assumed. It would take approximately 86 work hours per engine to accomplish the proposed actions, and the average labor rate is $60 per work hour. Based on these figures, the total labor cost impact of the proposed AD on U.S. operators the first year is estimated to be $24,520. Hardware costs the first year for HPT 1st stage airseals replaced by SB JT9D-7R4-72-566 are estimated to be $128,000, based on replacement costs of $147,110 per disk and $45,143 for sideplates, discounted for average 1/3 life lost at removal. Total combined labor and hardware costs for the first year are therefore estimated to be $140,000.

The following year, it is estimated that inspections will result in a maximum of three engines requiring forced replacement of the HPT 1st stage disk and HPT 1st stage airseals due to cracking. Due to these forced removals, approximately 1/3 of the disk life will be lost. The total combined hardware and labor cost is estimated to be approximately $210,000. The total cost impact of this proposal on U.S. operators in the first two years is expected to be approximately $350,000.

Regulatory Impact

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

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 the DOT Regulatory Policies and

Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 final evaluation has been prepared for this action and it 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, 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.

Sec. 39.13 [Amended]

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

Regulatory Information

2001-17-30 Pratt and Whitney: Amendment 39-12421. Docket 2000-NE-35-AD.

Applicability: This airworthiness directive (AD) is applicable to Pratt & Whitney (PW) JT9D-7R4 series turbofan engines. These engines are installed on, but not limited to, Boeing 747 and 767 series and Airbus A300 and A310 series airplanes.

Note 1: This AD applies to each engine 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 engines 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 (f) 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, unless accomplished previously.

To prevent high pressure turbine (HPT) disk firtree fracture, which could result in an uncontained engine failure, and damage to the airplane, accomplish the following:

HPT 1st Stage Airseal Replacement

(a) For engines that incorporate HPT 1st stage disk assembly part number (P/N) 787521, replace HPT 1st stage airseals with P/N 820121 at the next disk piece-part opportunity. Information on replacement of the HPT 1st stage airseal is contained in PW service bulletin (SB) JT9D-7R4-72-566, dated May 26, 2000.

Fluorescent Penetrant Inspection (FPI)

(b) Perform fluorescent penetrant inspection of the HPT 1st stage disk aft lug fillet radius for cracks according to the following Table 1 of this AD:

Table 1

HPT 1st stage disk assembly	HPT 1st stage disk	Initial inspection	Repetitive inspection interval
(1) P/N 787521	P/N 825701 or P/N 827201	Before the latest of 4,000 CSN or 4,000 cycles since last HPT disk lug FPI (CSLI), or 500 CIS after the effective date of this AD.	Within 4,000 CSLI.
(2) P/N 797621	(i) P/N 829401 with air seals P/N's 797355, 796760, 803979, 797355-00 installed. (ii) P/N 829401 with air seals P/N 820121 installed.	Before the latest of 5,000 CSN or CSLI, or 500 CIS after the effective date of this AD. Before the latest of 5,000 CSN or 5,000 CSLI, or 500 CIS after the effective date of this AD.	Within 4,000 CSLI. Within 6,000 CSLI.

Additional inspection information can be found in Paragraph 4 of the Accomplishment Instructions of PW SB JT9D-7R4-72-567, dated May 26, 2000.

(c) Replace any disks that have crack indications. Information on replacement of the disk is contained in PW SB JT9D-7R4-72-568, dated May 26, 2000.

Terminating Action

(d) Installation of HPT disk P/N 820321 with redesigned HPT 1st stage airseal P/N 820121 is considered

terminating action to the initial and repetitive inspection requirements of paragraph (b) this AD. Information on installation of the HPT disk is contained in PW SB JT9D-7R4-72-568, dated May 26, 2000.

Definition

(e) For the purpose of this AD, at disk piece-part opportunity is defined as any time the 1st stage HPT rotor is disassembled.

Alternative Methods of Compliance

(f) 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, Engine Certification Office (ECO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(g) 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 aircraft to a location where the requirements of this AD can be accomplished.

Effective Date of this AD

(h) This amendment becomes effective on October 4, 2001.

Footer Information

Issued in Burlington, Massachusetts, on August 21, 2001.
Donald Plouffe,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.
[FR Doc. 01-21893 Filed 8-29-01; 8:45 am]
BILLING CODE 4910-13-P

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2994; AD 77-16-01

MCCAULEY PROPELLERS Models
PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 9, 1977.

Regulatory Information

77-16-01 MCCAULEY PROPELLERS: Amendment 39-2994. Applies to the following two bladed constant speed McCauley propellers, which were modified by Hoosier Aircraft Accessory Inc., Indianapolis, Indiana, or Univair Aircraft Corporation, Aurora, Colorado during the period of December 8, 1972 thru June 30, 1975. These propellers are installed on, but not limited to the aircraft models listed

below.

Propeller Model Note (1)	Hub Serial No. Note (2)	Aircraft Model Note (3)
D2A34C49 (*)	692417 (H)	Cessna 185 thru 185E (thru S/N 185- 1149)
	703405 (H)	Cessna 210 thru 210C (thru S/N 21058220)
	705820 (H)	Cessna 210-5 & 210-5A (thru S/N 205- 0576)
		(The above models use Continental IO- 470 engines)
		Navion A thru G Series
D2A34C50 (*)	64746 (H)	Cessna 180 thru 180H (thru S/N 18052284)
-or-	690329 (H)	Cessna 182 thru 182G (thru S/N 18255844)
2A34C50 (*)	731417 (U)	Cessna 188 thru 188B (thru S/N 18802348)
		Wren 460 Series
D2A34C58 (*)	543736 (U)	Bellanca **17-30**
-or-	702828 (U)	Cessna 185 thru 185E (thru S/N 185- 1149)
F2A34C58 (*)	710292 (U)	
-or-	712516 (U)	Cessna A185 thru A185F
2A34C58 (*)	720683 (U)	Cessna A188 thru A188B
	721610 (H)	Cessna 206 (thru S/N 206- 0275)
	730297 (U)	
	738166 (U)	Cessna U206 thru U206F (thru S/N U20603560)
	734269 (H)	
	736436 (H)	Cessna TU206A thru TU206F (Floatplane only thru S/N U20602199)

		Cessna P206 thru P206B (thru S/N P206- 0419)
		Cessna TP206A (Floatplane only)
		Cessna 207 (thru S/N 20700364)
		Cessna 210 thru 210D (thru S/N 21058510)
		Cessna 210-5 & 2105A (thru S/N 205- 0576)
		Interceptor (Aero Commander)
		200B, C & D Series
		Navion A thru H Series
2A34C66 (*)	705202 (H)	Cessna 180 thru 180J (thru S/N 18052770)
	714959 (U)	
	720392 (U)	Cessna 182 thru 182P (thru S/N 18265175)
	727625 (H)	
	727628 (H)	Cessna 188 thru 188B (thru S/N 18802348)
	731236 (U)	
	732194 (H)	
	735330 (U)	
	746598 (U)	
E2A34C73 (*)	652300 (U)	Cessna P206 thru P206E (thru P20600647)
-or-	652336 (U)	
2A34C73 (*)	652403 (H)	Cessna 210E thru 210L (thru S/N 21061573)
	652692 (U)	
	720673 (H)	
	721615 (H)	
	732503 (H)	

2D34C9 (*)	704835 (U)	Beech A23-24, A24 and A24R
2A36C1 (*)	55588 (H)	Cessna 180A thru H
-or-	59229 (H)	Cessna 182, 182A thru G
2A36C18 (*)		Taylorcraft 20
-or-		
2A36C29 (*)		
2A36C23 (*)	671564 (H)	Beech H35, J35, K35, M35
		Beech N35, P35, S35, V35, V35A
		and V35B (S/N's D-6562 thru D-9935)
		Beech 35-C33A, E33A and F33A (S/N's CE-1 thru CE-668)
		Beech E33C and F33C (S/N's CJ-1 thru CJ-128)
		Beech 36 and A36 (S/N's E-1 thru E- 910)
		Beech A45 (STC SA1450SW)
D2A36C33 (*)	60314 (U)	Cessna 185 thru 185D (thru S/N 185- 0967)
	61005 (H)	
	611491 (H)	Cessna 210 thru 210C (thru S/N 21058220)
	611720 (H)	
		Cessna 210-5 & 210-5A (thru S/N 205- 0576)
		Aeronautica Macchi AL-60() Series
		Air Parts LTD. (Fletcher) FU-24() Series
		Interceptor (Aero Commander/ Meyers) 200 Series
		Lockheed 402-2 "LASA 60"
2D36C14 (*)	591205 (U)	Beagle A-109
		Boisavia B-601L

		Cessna 170 Series (STC SA421CE)
		Cessna 172 Series (STC SA420CE)
		Cessna 175, 175A (STC SA424CE)
		Piper PA-24
		SAAB 91D
		Wassmer WA-40

NOTES:
(*) - Denotes suffix letter(s). Some models have one or more suffix letter designations, others have none.
(1)&(2) - Propeller model and hub serial numbers are stamped on the side of the propeller hub. The listing of hub serial numbers refers to specific hub serial numbers not series. In the event a spinner is installed, the spinner should be removed to check the model and hub (S/N) designations. The aircraft's records should likewise be checked to ensure that the model and hub serial number coincide with the records. In the event an error is noted, the records should be corrected accordingly. Prior to further flight, spinners should be reinstalled where applicable.
(3) - Includes listing of applicable aircraft serial numbers. If no listing is indicated, applies to all applicable serial numbers of a particular aircraft model or series.
H) or (U - Indicates that the propeller rework was accomplished by (H) Hoosier Aircraft Accessory, Inc., or (U) Univair Aircraft Corporation. These letters are not part of the manufacturer's hub serial numbers.

Compliance required as indicated, unless already accomplished. To preclude the possibility of blade actuating pin failures resulting from using an incorrect actuating pin, or improper rework of the ferrules and installation of the blade actuating pins and washers (i.e., a blind actuating pin hole not tapped to the proper depth can cause stripped threads on the ends of the actuating pin resulting in severe stress and may prevent actuating pin from seating on the washers) accomplish the following:

(a) All propellers listed above which were modified by (H) - Hoosier Aircraft Accessory, Inc.

(1) Within 25 hours time in service after the effective date of this AD, disassemble the propeller and inspect the blade actuating pins, washers and ferrules for proper conformity and installation in accordance with McCauley Service Manual No. 720415, Chapter I, or later Federal Aviation Administration approved revision(s)

(2) Prior to further flight, repair or replace as necessary, any improperly installed blade actuating pins, washers, and ferrules, and reassemble the propeller in accordance with McCauley Service Manual No. 720415, or later Federal Aviation Administration approved revision(s).

(b) All propellers listed above, which were modified by (U) - Univair Aircraft Corporation.

(1) Within 1200 hours time in service since last rework by Univair, or within two years, whichever

comes first after the effective date of this AD, disassemble the propeller and inspect the blade actuating pins, washers and ferrules for proper conformity and installation in accordance with McCauley Service Manual No. 720415, Chapter I, or later Federal Aviation Administration approved revision(s).

(2) Prior to further flight, replace any improper blade actuating pins, washers and repair or replace the ferrules as necessary, and reassemble the propeller in accordance with McCauley Service Manual No. 720415, or later Federal Aviation Administration approved revision(s).

(c) When the above propellers are released for service, compliance with this Airworthiness Directive shall be noted in the Aircraft's Records.

(d) The responsible propeller repair station will notify the Federal Aviation Administration, Chief, Engineering and Manufacturing Branch, AGL-210, 2300 East Devon Avenue, Des Plaines, Illinois 60018, by certified mail about the results of these inspections. The disposition of the affected propeller (s) including the blade and hub serial numbers of the propellers (as received, and where applicable, as returned to service) must be reported. (Reporting approved by the Office of Management and Budget under OMB No. 04-R0174.)

The Manufacturer's specifications and procedures identified in this Directive are incorporated herein and made part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by the directive who have not already received these documents from the manufacturer, may obtain copies upon request to McCauley Accessory Division, Cessna Aircraft Corporation, Box 7, Roosevelt Station, Dayton, Ohio 45417. These documents may also be examined at the Great Lakes Regional Office, 2300 East Devon Avenue, Des Plaines, Illinois 60018, and at FAA Headquarters, 800 Independence Avenue, S.W., Washington, D.C. 20591. A historical file on this airworthiness directive which includes incorporated material in full is maintained by the FAA at its headquarters in Washington, D.C., and the Great Lakes Region.

Amendment 39-2994 replaces AD 76-19-04.

This amendment becomes effective August 9, 1977.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1377; AD 68-08-01

MCCAULEY AIRCRAFT PROPELLERS two- and three-bladed constant speed propeller models

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective January 21, 1972.

Regulatory Information

68-08-01 MCCAULEY AIRCRAFT PROPELLERS: Amdt. 39-581 as amended by Amendment 39-1314 is further amended by Amendment 39-1377. Applies to the following two- and three-bladed constant speed propeller models with hub serial numbers indicated below:

PROPELLER MODELS

2D34C8	C2A36C32	D2A34C58-B	3A32C76-S	D2A34C78-K
2D34C8-A	C2A36C32-A	D2A34C58-J	3A32C76-T	D2A34C78-L
2D34C8-J	C2A36C32-D	D2A34C58-K	3A32C76-AD	D2A34C78-M
2D34C8-K	D2A36C33	D2A34C58-L	3A32C76-AS	D3A32C79
2D34C8-M	D2A36C33-D	D2A34C58-M	3A32C76-AT	D3A32C79-A
2A36C23-C	D2A36C45	2A34C66	3A32C76-FD	D3A32C79-B
2A36C23-CD	D2A36C45-D	2A34C66-A	3A32C76-FS	D3A32C79-F
2A36C23-CH	D2A34C49	2A34C66-B	3A32C76-FT	D3A32C79-J
2A36C23-CJ	D2A34C49-A	2A34C66-C	3A32C76-JD	D3A32C79-K
2A36C23-CP	D2A34C49-B	2A34C66-J	3A32C76-JS	2A36C82-T
2A36C23-CS	D2A34C49-J	2A34C66-K	3A32C76-JT	2A36C82-DT
2A36C23-DD	D2A34C49-K	2A34C66-L	3A32C76-KD	D3A32C88
2A36C23-DH	D2A34C49-L	2A34C66-M	3A32C76-KS	D3A32C88-A
2A36C23-DJ	D2A34C49-M	E2A34C70	3A32C76-KT	D3A32C88-F
2A36C23-DP	2A34C50	E2A34C70-A	D3A32C77	D3A32C88-J
2A36C29	2A34C50-A	E2A34C70-J	D3A32C77-A	D3A32C88-K
2A36C29-A	2A34C50-B	E2A34C70-K	D3A32C77-F	D3A32C90
2A36C29-D	2A34C50-J	E2A34C70-M	D2A32C77-J	D3A32C90-A
B2A36C31	2A34C50-K	E2A34C73	D3A32C77-K	D3A32C90-B
B2A36C31-A	2A34C50-L	E2A34C73-A	D2A34C78	D3A32C90-C
B2A36C31-D	2A34C50-M	E2A34C73-J	D2A34C78-A	D3A32C90-F
D2A36C31-A	D2A34C58	E2A34C73-K	D2A34C78-B	D3A32C90-J
D2A36C31-D	D2A34C58-A	E2A34C73-M	D2A34C78-J	D3A32C90-K
		3A32C76-D		

HUB SERIAL NUMBERS
59000 up to and including 712778 except 700492, 700500 thru 700558; 700561 thru 700568; 700570 thru 700594; 700596 thru 701050 and 701053

Compliance required within the next 100 hours' time in service after the effective date of this AD, unless already accomplished. To prevent failure of the propeller cylinder attach screws, accomplish the following:

Modify propeller cylinder attachment in accordance with McCauley Service Bulletin No. 92, dated April

21, 1971, or later FAA-approved revision. However, for propellers used on Bellanca Aircraft Models **17-30** and **17-30**A modify propeller cylinder attachment in accordance with McCauley Service Bulletin No. 94, dated July 28, 1971, or later FAA-approved revision instead of Service Bulletin No. 92. Equivalent methods of compliance with this AD must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

Amendment 39-581 was effective April 11, 1968.

Amendment 39-1314 was effective October 14, 1971.

This Amendment 39-1377 is effective January 21, 1972.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Docket No. 91-ANE-22; Amendment 39-7067; AD 91-15-04

MCCAULEY ACCESSORY DIVISION, CESSNA AIRCRAFT COMPANY Model ( )2( )34C( )-( ) Series Propellers

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 7, 1991.

Regulatory Information

91-15-04 MCCAULEY ACCESSORY DIVISION, CESSNA AIRCRAFT COMPANY: Amendment 39-7067. Docket No. 91-ANE-22.

Applicability: McCauley Model ( )2( )34C( )-( ) Series two bladed constant speed propellers with

threaded retention hubs, including those with feathering capabilities listed as follows:

Affected Propeller Hub Models

CONSTANT SPEED	FEATHERING
2D34C8-( )	D2AF34C30-( )
2D34C9-( )	2AF34C55-( )
2D34C53-( )	D2AF34C56-( )
B2D34C53-( )	D2AF34C61-( )
D2A34C58-( )	D2AF34C65-( )
F2A34C58-( )	D2AF34C81-( )
2A34C66-( )	
E2A34C70-( )	
E2A34C73-( )	
D2A34C78-( )	
D2A34C98-( )	

The parentheses used in the above list indicate the presence or absence of an additional letter(s) which vary the basic hub model designation. These letter(s) define minor changes that do not affect interchangeability or eligibility, and therefore, this AD still applies regardless of whether these letters are present or absent on the hub model designation.

The above listed McCauley propeller hubs are found on, but not limited to, the following aircraft certificated in any category:

Beech A23-24, A24, A24R, 58, 58A; 95-55, -A55, -B55,-B55A, -B55B, -C55, -C55A; D55, D55A, E55, E55A.
Bellanca **17-30**, **17-30**A
Cessna 180, 182H, 185, 185A thru D, A185E, A185F, 188, 188A, 188B, A188, A188A, A188B, 206, P206, P206A thru E, TP206A thru E, TU206A thru G, U206, U206A thru G, 207, T207, 210, 210A thru H, 210J thru L, 210-5, 210-5A, T210F thru H, T210J thru L, 305B, 305E, 310J, E310J, 310K, 310L, 310N, 336, 337, 337A thru F, M337B, T337B thru F.
Fuji FA-200-180
Interceptor (AeroCommander/Meyers) 200A thru C
Mooney M20C, M20D, M20G
Navion A, B, D thru H
Procaer F15/C
Reims F337E, F337F, FT337E, FT337F
Transavia PL-12/T-300
Windecker AC-7

Compliance: Required as indicated, unless previously accomplished.

To prevent possible blade separation, which could result in the loss of the engine and subsequent loss of aircraft control, accomplish the following in accordance with the compliance schedule as indicated:

PRIOR PROPELLER UTILIZATION (Hours/ calendar months given as time-in-service)	**COMPLIANCE SCHEDULE OF PROPELLER INSPECTION AND MODIFICATION**
Greater than 900 hours, or 59 calendar months since last overhaul/penetrant inspection or installed new, or prior time-in-service unknown.	Within the next 100 hours, or at the next annual inspection, or within 12 calendar months after the effective date of this AD, whichever occurs first.
Less than or equal to both 900 hours and 59 calendar months since last overhaul/penetrant inspection or installed new.	Prior to the accumulation of 1000 hours or 60 calendar months since last overhaul/penetrant inspection, or installed new, whichever occurs first.

(a) For propellers which have incorporated a hub containing oil with red dye and have been designated at initial production as a hub model number listed in the Appendix to this AD, or prior manufactured propellers whose hubs have been modified to contain oil with a red dye and reidentified as a hub model number listed in the Appendix to this AD, compliance is required only with paragraphs (f) and (h) of this AD.

(b) Perform propeller disassembly in accordance with the procedures specified for the affected hub model number listed in Paragraph 1 on page 4 of McCauley Service Bulletin (SB) 184, dated March 15, 1991.

(c) Penetrant inspect the propeller assembly for cracks in the propeller blade threaded retention area, the hub blade socket threads, the retention nut threads, and the ferrule threads in accordance with the procedures specified for the affected hub model number listed in Paragraph 2 on page 5 of McCauley SB 184, dated March 15, 1991.

(d) Remove from service, prior to further flight, propeller assemblies which exhibit cracks and replace with a serviceable unit, modified in accordance with paragraph (e) of this AD, or with an equivalent initial production propeller which has incorporated a hub with oil containing red dye.

(e) Modify the affected propeller hub assembly to contain oil with a red dye and reidentify in accordance with the procedures specified for the affected hub model number listed in Paragraph 3 on page 6 of McCauley SB 184, dated March 15, 1991.

NOTE: The modification of the propeller hub assembly to contain oil with a red dye provides an "on-condition" (in-service) means of early crack detection to prevent blade separation and also improves lubrication and corrosion protection. The oil will add approximately 2.8 lbs. to the weight of the

propeller assembly.

(f) If leakage of oil containing red dye is detected in service (whether during flight or while on the ground), determine prior to further flight, the source of leakage in accordance with the procedures specified for the affected hub model number listed in Paragraph 4 on page 7 of McCauley SB 184, dated March 15, 1991. If the inspection reveals a crack, compliance with Paragraph (d) of this AD is required.

(g) The "calendar month" compliance times stated in this AD allow the performance of the required action prior to the last day of the month in which compliance is required.

NOTE: For example, a required inspection and modification 60 months from last overhaul/penetrant inspection that was performed on December 15, 1986, would allow the penetrant inspection and modification to be performed no later than December 31, 1991.

(h) Report in writing any cracks found during inspections accomplished in accordance with paragraphs (c) or (f) of this AD to the Manager, Chicago Aircraft Certification Office, within ten (10) days of the inspection. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (P.L. 96-511) and has been assigned OMB Control Number 2120-0056.

(i) Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations (FAR) 21.197 and 21.199 to a base where the AD can be accomplished.

(j) Upon submission of substantiating data by an owner or operator through an FAA Inspector (maintenance, avionics, or operations, as appropriate) an alternate method of compliance with the requirements of this AD or adjustments to the compliance times specified in this AD may be approved by the Manager, Chicago Aircraft Certification Office, Small Airplane Certification Directorate, Aircraft Certification Service, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

The disassembly, inspection, and modification shall be done in accordance with the procedures listed in McCauley SB 184, dated March 15, 1991. 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 Accessory Division, The Cessna Aircraft Company, 3535 McCauley Drive, Vandalia, Ohio 45377. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Room 311, Burlington, Massachusetts, or at the Office of the Federal Register, 1100 L Street, NW, Room 8401, Washington, DC.

Airworthiness Directive 91-15-04, Amendment 39-7067, supersedes, AD 77-17-09, Amendment 39-3020, AD 77-20-03, Amendment 39-3044, AD 77-23-01, Amendment 39-3073, AD 77-24-04, Amendment 39-3086, AD 78-20-01, Amendment 39-3304.

This amendment (39-7067, AD 91-15-04) becomes effective on August 7, 1991.

AD 91-15-04
APPENDIX

OIL-FILLED PROPELLER HUB COMPLIANCE INDICATOR TABLE

Propeller Hub Model	Compliance Indicator	Propeller Hub Model	Compliance Indicator +
2D34C8	2D34C8-()P and/or oil-fill plug in side of hub	F2A34C58	F2A34C58-()0 and/or oil-fill plug in side of hub
2D34C9	2D34C9-()P and/or oil-fill plug in side of hub	D2AF34C61	D2AF34C61-()0 and/or oil-fill plug in side of hub
D2AF34C30	D2AF34C30-()P and/or oil-fill plug in side of hub	D2AF34C65	D2AF34C65-()0 and/or oil-fill plug in side of hub
B2D34C53	B2D34C53-()0 and/or oil-fill plug in side of hub	2A34C66	2A34C66-()P and/or oil-fill plug in side of hub
2D34C53	2D34C53-()0 and/or oil-fill plug in side of hub	E2A34C70	E2A34C70-()P and/or oil-fill plug in side of hub
2AF34C55	2AF34C55-()0 and/or oil-fill plug in side of hub	E2A34C73	E2A34C73-()P and/or oil-fill plug in side of hub
D2AF34C56	D2AF34C56-()0 and/or oil-fill plug in side of hub	D2A34C78	D2A34C78-()P and/or oil-fill plug in side of hub
D2A34C58	D2A34C58-()0 and/or oil-fill plug in side of hub	D2AF34C81	D2AF34C81-()0 and/or oil-fill plug in side of hub
		D2A34C98	D2A34C98-()0 and/or oil-fill plug in side of hub

+Propeller models are listed in numerical sequence following the letter C in the model designation.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-5046; AD 85-08-08

McCAULEY ACCESSORY DIVISION Model D3A32C90 Series Propellers

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective May 13, 1985.

Regulatory Information

85-08-08 McCAULEY ACCESSORY DIVISION: Amendment 39-5046. Applies to the following Model D3A32C90 series propellers installed on, but not limited to, Bellanca **17-30**, 17- 30A; Cessna A185E, F, A188B, P206A, TP206A, U206A, B, C, D, E, F, TU206A, B, C, D, E, F, 207, 207A, T207; and Navion A thru H: D3A32C90, D3A32C90-A, -B, -C, -J, -K, -L, -BLM, - CLM, -JLM, -KLM, -LM,

and -M.

Compliance is required as indicated unless already accomplished.

To detect propeller hub cracks and prevent possible failure, accomplish the following:

(a) Propeller models D3A32C90, D3A32C90-A, -B, -C, -J, -K, and -L: Within the next 50 hours time in service after the effective date of this AD or prior to accumulating 1200 hours total time in service, whichever occurs later, replace hubs with shot peened hubs and modify to the oil filled hub configuration in accordance with Supplement 1 to McCauley Service Manual No. 720415 dated January 7, 1977, or FAA approved equivalent.

(b) Propeller models D3A32C90-BLM, -JLM, -KLM, -LM, and -M: Within the next 50 hours time in service after the effective date of this AD or prior to accumulating 1200 hours total time in service, whichever occurs later, inspect the hub in accordance with McCauley Service Letter 1974-3 dated March 29, 1974, or FAA approved equivalent, end modify to the oil filled hub configuration in accordance with Supplement 1 to McCauley Service Manual No. 720415 dated January 7, 1977, or FAA approved equivalent.

(c) Propellers with unknown service histories must comply with paragraphs (a) or (b), as applicable, within the next 50 hours time in service after the effective date of this AD.

(d) Modified propellers showing signs of red dyed oil leakage must be removed from service and replaced with a serviceable propeller.

Aircraft may be ferried in accordance with the provisions of Federal Aviation Regulations 21.197 and 21.199 to a base where the AD can be accomplished.

Upon request, an equivalent means of compliance with the requirements of this AD may be approved by the Manager, Chicago Aircraft Certification Office, ACE-140C, 2300 East Devon Avenue, Des Plaines, Illinois 60018, telephone (312) 694-7130.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive who have not already received these documents from the manufacturer may obtain copies upon request to McCauley Accessory Division, Cessna Aircraft Company, 3535 McCauley Drive, P.O. Box 430, Vandalia, Ohio 45377. These documents also may be examined at the Office of Regional Counsel, FAA, Attn: Rules Docket No. 85-ANE-1, 12 New England Executive Park, Burlington, Massachusetts 01803, weekdays, except Federal holidays, between 8:00 a.m. and 4:30 p.m.

This amendment becomes effective May 13, 1985.

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 12463 3/9/2000]

Docket No. 98-CE-88-AD; Amendment 39-11621; AD 98-21-21 R1

RIN 2120-AA64

Airworthiness Directives; Bob Fields Aerocessories Inflatable Door Seals

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule

SUMMARY: This amendment revises Airworthiness Directive (AD) 98-21-21, which currently requires de-activating the electric door seal inflation system for all aircraft equipped with Bob Fields Aerocessories inflatable door seals. Since issuance of that AD, the manufacturer has developed a modification that would allow these electric door seal inflation systems to remain in service, and the Federal Aviation Administration (FAA) has approved this modification. This AD requires incorporating this modification as a method of complying with the current AD, and will exclude those airplanes with manual door seal inflation systems from the AD requirements of de-activating the system. The actions specified by this AD are intended to prevent smoke and a possible fire in the cockpit caused by

overheating of the electric door seal inflation systems, which could result in passenger injury.

DATES: Effective May 1, 2000.

ADDRESSES: Service information that relates to this AD may be obtained from Bob Fields Aerocessories,
340 East Santa Maria St., Santa Paula, California 93060; telephone: (805) 525-6236; facsimile: (805) 525-5286. This
information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional
Counsel, Attention: Rules Docket No. 98-CE-88-AD, 901 Locust, Room 506, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT: George Y. Mabuni, Aerospace Engineer, FAA, Los Angeles Aircraft
Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone: (562) 627-5341;
facsimile: (562) 627-5210.

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 all aircraft equipped with Bob Fields Aerocessories inflatable door seals that are installed in accordance with either the applicable Supplemental Type Certificate (STC) or through field approval was published in the Federal Register as a notice of proposed rulemaking (NPRM) on October 29, 1999 (64 FR 58359). The NPRM proposed to revise AD 98-21-21, Amendment 39-10844 (63 FR 55321, October 15, 1998). AD 98-21-21 currently requires de- activating the electric door seal inflation system, fabricating and installing a placard specifying that the system is inoperative, and inserting a copy of the AD into the Limitations Section of the airplane flight manual (AFM).

AD 98-21-21 only applies to those aircraft equipped with the Bob Fields Aerocessories inflatable door seals. With this in mind, the owner/operator also has the option of removing all provisions of the Bob Fields Aerocessories inflatable door seals installation, and installing original equipment manufacturer door seals or an FAA-approved equivalent that is of different design than the referenced Bob Fields Aerocessories inflatable door seals.

The NPRM proposed to retain the requirements of the existing AD, would exclude those airplanes incorporating a manual inflatable door seal system from the system de-activation requirements, and would provide the option of incorporating one of the modifications referenced in Bob Fields Aerocessories Service Bulletin No. BFA-001, Date: November 3, 1998, as a method of accomplishing

the AD.

The NPRM was the result of the manufacturer developing a modification that would allow these electric door seal inflation systems to remain in service, and the Federal Aviation Administration (FAA) approved this modification.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

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 minor editorial corrections. The FAA has determined that 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.

Cost Impact
The FAA does not know the number of aircraft that have the affected electric door seal inflation systems installed. The FAA estimates that it will take approximately 3 workhours per airplane to accomplish the optional modifications that will allow these systems to be put back in service, at an average labor rate of approximately $60 an hour. Based on these figures, the total cost impact of the optional modification in this document on U.S. operators is estimated to be $180 per airplane aircraft equipped with Bob Fields Aerocessories inflatable door seals.

Regulatory Impact
These regulations will not have a substantial direct effect 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, the FAA has determined that this final rule does not have federalism implications under Executive Order 13132.

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, 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 removing Airworthiness Directive (AD) 98-21-21, Amendment 39-10844 (63 FR 55321, October 15, 1998), and adding a new AD to read as follows:

Regulatory Information

REVISION

98-21-21 R1 BOB FIELDS AEROCESSORIES: Amendment 39-11621; Docket No. 98-CE-88-AD; Revises AD 98-21-21, Amendment 39-10844.

Applicability: Electric inflatable door seals, installed either in accordance with the applicable supplemental type certificate (STC) or through field approval, that are installed on, but not limited to, the following aircraft:

Affected STC	Make and Model Aircraft Affected
SA3735NM	Cessna Models 170, 170A, and 170B Airplanes
SA4136WE	Cessna Models 310, 310A, 310B, 310C, 310D, 310F, 310G, 310H, 310I, 310J, 310K, 310L, 310N, 310P, 310Q, 310R, T310P, T310Q, and T310R Airplanes
SA2226NM	Cessna Models P210N and P210R Airplanes
SA3736NM	Cessna Models 185, 185A, 185B, 185C, 185D, A185E, and A185F Airplanes
SA4177WE	Cessna Models 175, 175A, 175B, and 175C Airplanes
SA4212WE	Cessna Models 210, 210A, 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, T210F, T210G, T210H, T210J, T210K, T210L, T210M, T210N, 210-5 (205), and 210-5A (205A) Airplanes
SA4283WE	Cessna Models 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, and 172N Airplanes
SA4284WE	Cessna Models 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, and 180K Airplanes
SA4285WE	Cessna Models 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, R182, and TR182 Airplanes
SA4286WE	Cessna Models 206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D, TP206E, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, and TU206G Airplanes
SA4287WE	Cessna Models 320, 320A, 320B, 320C, 320D, 320E, 320F, and 320-1 Airplanes

SA4180WE	Raytheon (Beech) Models H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, 36, A36, A36TC, and B36TC Airplanes
SA4184WE	Raytheon (Beech) Models 95, B95, B95A, E95, 95-55, 95-A55, 95-B55, 95-B55A, 95-B55B, 95-C55, D55, E55, 56TC, 58, and 58A Airplanes
SA4239WE	Raytheon (Beech) Models 58P, 58PA, 58TC, and 58TCA Airplanes
SA4240WE	Raytheon (Beech) Models 50, B50, C50, D50, D50A, D50B, D50C, D50E, D50E-5990, E50, F50, G50, H50, and J50 Airplanes
SA4282WE	Raytheon (Beech) Models 35, A35, B35, C35, D35, E35, F35, G35, and 35R Airplanes
SA4178WE	Mooney Models M20, M20A, M20C, M20D, M20E, M20F, M20G, M20J, and M20K Airplanes
SA4234WE	The New Piper Aircraft, Inc. (Piper) Models PA-34-200, PA-34-200T, and PA-34-220T Airplanes
SA4179WE	Piper Models PA-24, PA-24-250, PA-24-260, and PA-24-400 Airplanes
SA4235WE	Piper Models PA-44-180 and PA-44-180T Airplanes
SA4236WE	Piper Models PA-28-140, PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28-151, PA-28-181, PA-28-161, PA-28-236, PA-28-201T, PA-28S-160, PA-28S-180, PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, and PA-28RT-201T Airplanes
SA4237WE	Piper Models PA-23, PA-23-160, PA-23-235, PA-23-250, and PA-E23-250 Airplanes
SA4238WE	Piper Models PA-30, PA-39, and PA-40 Airplanes
SA4385WP	Piper Models PA-31, PA-31-300, PA-31-325, and PA-31-350 Airplanes
SA4288WE	Piper Models PA-32-260, PA-32-300, PA-32S-300, PA-32-301, PA-32-301T, PA-32R-300, PA-32R-301, PA-32R-301T, PA-32RT-300, and PA-32RT-300T Airplanes
SA2511NM	Bellanca Models **17-30**, 17-31, and 17-31TC Airplanes
SA2510NM	Bellanca Models **17-30**A, 17-31A, and 17-31ATC Airplanes
SA4316WE	Wing Aircraft Company Model D-1 Airplanes

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision that has the affected inflatable door seals installed, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes 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 (f) 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 prevent smoke and a possible fire in the cockpit caused by overheating of the electric door seal inflation systems, which could result in passenger injury, accomplish the following:

(a) Prior to further flight after October 30, 1998 (the effective date of AD 98-21-21), deactivate the electric door seal inflation system by accomplishing the following:

(1) Disconnect the battery.

(2) Locate the air pump and identify the power wire to the air pump.

(3) Trace the power wire to its connection to the airplane's original electrical power system. Disconnect the power wire at its attachment to the airplane's electrical power system and stow the wire end.

(4) For non-pressurized airplanes, fabricate a placard that incorporates the following words utilizing letters that are at least 0.10-inch in height, and install this placard on the instrument panel within the pilot's clear view:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE"

(5) For pressurized airplanes or for airplanes that do not have an operating manual door seal inflation system, fabricate a placard that incorporates the following words utilizing letters that are at least 0.10-inch in height, and install this placard on the instrument panel within the pilot's clear view:

"ELECTRIC DOOR SEAL INFLATION SYSTEM INOPERATIVE. THIS AIRPLANE CAN ONLY BE OPERATED IN UNPRESSURIZED FLIGHT"

(6) Reconnect the battery before returning to service.

(b) Prior to further flight after October 30, 1998 (the effective date of AD 98-21-21), insert a copy of this AD into the Limitations Section of the airplane flight manual (AFM).

NOTE 2: The prior to further flight compliance time of paragraphs (a) and (b) of this AD is being retained from AD 98-21-21. **The only substantive difference between this AD and AD 98-21-21 is the addition of the alternative method of compliance referenced in paragraph (c) of this AD.**

NOTE 3: This AD only applies to those aircraft equipped with the Bob Fields Aerocessories inflatable door seals. With this in mind, the owner/operator also has the option of removing all provisions of the Bob Fields Aerocessories inflatable door seals installation, and installing original equipment manufacturer door seals or an FAA-approved equivalent that is of a different design than the referenced Bob Fields Aerocessories inflatable door seals.

(c) One of the following actions may be accomplished as an alternative method of compliance to the requirements of paragraphs (a) and (b) of this AD. No further action is required by this AD as long as one of these configurations remains incorporated on the aircraft.

(1) Modify the electric door seal inflation system in accordance with the procedures in Bob Fields Aerocessories Service Bulletin No. BFA-001, Date: November 3, 1998; or

(2) Install a manual door seal inflation system instead of an electric system. Aircraft with existing manual systems as of the effective date of this AD are excluded from the requirements of paragraphs (a) and (b) of this AD.

(d) As of the effective date of this AD, no person may install, on any aircraft, a Bob Fields Aerocessories electric door seal inflation system unless the actions specified in Bob Fields Aerocessories Service Bulletin No. BFA-001, Date: November 3, 1998, are incorporated.

(e) 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.

(f) An alternative method of compliance or adjustment of the compliance times that provides an equivalent level of safety may be approved by the Manager, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Blvd., Lakewood, California 90712.

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

(2) Alternative methods of compliance approved in accordance with AD 98-21-21 are considered approved as alternative methods of compliance for this AD.

NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

(g) All persons affected by this directive may obtain copies of the document referred to herein upon request to Bob Fields Aerocessories, 340 East Santa Maria St., Santa Paula, California 93060; or may examine this document(s) at the FAA, Central Region, Office of the Regional Counsel, Room 506, 901 Locust, Kansas City, Missouri 64106.

(h) This amendment revises AD 98-21-21, Amendment 39-10844.

(i) This amendment becomes effective on May 1, 2000.

Footer Information

Issued in Kansas City, Missouri, on March 2, 2000.
Michael Gallagher,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [61 FR 46538 NO. 172 09/04/96]

Docket No. 95-CE-54-AD; Amendment 39-9731; AD 96-18-07

RIN 2120-AA64

Airworthiness Directives; Bellanca, Incorporated Models **17-30**, **17-30**A, 17-31, 17-31A, 17-31TC, and 17-31ATC Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to Bellanca, Incorporated (Bellanca) Models **17-30**, **17-30**A, 17-31, 17-31A, 17-31TC, and 17-31ATC airplanes. This action requires repetitively inspecting, testing, and possibly replacing the nose landing gear (NLG) strut and brackets. A collapse of a Bellanca airplane's NLG during a landing prompted this action. The actions specified by this AD are intended to prevent possible failure of the nose landing gear, which, if not detected and corrected, could result in loss of control of the airplane during landing operations.

DATES: Effective October 25, 1996.
The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 25, 1996.

ADDRESSES: Service information that applies to this AD may be obtained from Bellanca, Incorporated, P.O. Box 964, Alexandria, Minnesota 56308; telephone (612) 762-1501. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the

Assistant Chief Counsel, Attention: Rules Docket 95-CE-54-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: Steven J. Rosenfeld, Aerospace Engineer, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Rm. 232, Des Plaines, Illinois 60018; (847) 294-7030; facsimile (847) 294-7834.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to Bellanca Models **17-30**, **17-30**A, 17-31, 17-31A, 17-31TC, and 17-31ATC airplanes was published in the **Federal Register** on January 22, 1996 (61 FR 1532). The action proposed to require repetitively inspecting, testing, and possibly replacing the nose landing gear (NLG) strut and brackets. Accomplishment of the proposed action would be in accordance with Bellanca Service Letter (SL) B-107, dated September 20, 1995.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

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 proposed except for minor editorial corrections. The FAA has determined that 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.

The FAA estimates that 1,109 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 24 workhours per airplane to accomplish the required action, and that the average labor rate is approximately $60 an hour. Parts cost approximately $160 per airplane. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be $1,774,400 or approximately $1,600 per airplane. Bellanca has informed the FAA that no parts have been distributed to owners/operators for this replacement; therefore, this figure is based on the assumption that no owners/operators have accomplished the proposed inspection, testing, and replacement. In addition, the FAA has no way of determining the number of repetitive inspections each owner/operator will incur prior to replacing the bracket.

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 USC 106(g), 40113, 44701.

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

Regulatory Information

96-18-07 BELLANCA, INCORPORATED: Amendment 39-9731; Docket No. 95-CE-54-AD.

Applicability: The following airplane models and serial numbers, certificated in any category:

Model	Serial Numbers
17-30	(30123 through 30262)
17-30A	(30263 through 78-30905, except 76-30824)
17-31	(32-1 through 32-14)
17-31A	(32-15 through 78-32172)
17-31TC	(31001 through 31003)
17-31ATC	(31004 through 79-31155)

NOTE 1: This AD applies to each airplane 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 airplanes 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 (g) 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 initially upon accumulating 500 hours time-in-service (TIS) or within the next 50 hours TIS after the effective date of this AD, whichever occurs later, unless already accomplished, and

thereafter as indicated in the body of this AD.

To prevent failure of the nose landing gear (NLG), which, if not detected and corrected, could result in loss of control of the airplane during landing operations, accomplish the following:

(a) Inspect the NLG drag strut brackets for cracks or bends in accordance with the instructions in section 4, NLG DRAG STRUT BRACKET INSPECTION, of Bellanca Service Letter (SL) B-107, dated September 20, 1995. Prior to further flight, replace any cracked or bent bracket with a part number (P/N) 194650-0 (right side) bracket or a P/N 194383-0 (left side) bracket in accordance with the instructions in section 5, INSTALLATION NEW BRACKETS, of Bellanca SL B-107, dated September 20, 1995.

(b) Inspect the NLG installation, including the upper and lower leg assemblies, upper and lower drag struts, over-center spring assembly, and engine mount for corroded or worn bolts in accordance with the instructions in Section 6, NLG DRAG STRUT INSPECTION, of Bellanca SL B-107, dated September 20, 1995. Prior to further flight, replace any corroded or worn bolts.

(c) Check the NLG drag strut rigging, the overcenter of the drag strut, and the NLG cylinder actuator stroke limit, and adjust any discrepancies in accordance with the applicable instructions contained in the following:

(1) Section 7, PRELIMINARY NLG DRAG STRUT RIGGING CHECK (including section 7.1, Preliminary Nose-Wheel-In-The-Well Test, and section 7.2, Preliminary NLG Cylinder Down Test), of Bellanca SL B-107, dated September 20, 1995.

(2) Section 8, DRAG STRUT OVERCENTER TEST AND ADJUSTMENT, of Bellanca SL B-107, dated September 20, 1995.

(3) Section 9, NLG CYLINDER DOWN TEST AND ADJUSTMENT, of Bellanca SL B-107, dated September 20, 1995.

(d) If any discrepancies are found during any of the checks accomplished as required by paragraph (c) of this AD, and the right side NLG drag strut bracket has not been replaced with P/N 194650-0 (accomplished as possible requirement of paragraph (a) of this AD), accomplish the following:

(1) Reinspect the NLG drag strut brackets for cracks or bends at intervals not to exceed 50 hours TIS in accordance with Section 4, NLG DRAG STRUT BRACKET INSPECTION, of Bellanca SL B-107, dated September 20, 1995.

(2) Prior to further flight, replace any cracked or bent bracket with a P/N 194650-0 (right side) bracket or a P/N 194383-0 (left side) bracket in accordance with the instructions in section 5, INSTALLATION NEW BRACKETS, of Bellanca SL B-107, dated September 20, 1995. Installing the P/N 194650-0 (right side) bracket eliminates the repetitive inspection requirement in paragraph (d)(1) of this AD.

(3) The P/N 194650-0 (right side) bracket may be installed at any time to eliminate the repetitive inspection requirement of this AD.

(e) Check the NLG retraction (NLG-In-The-Well Test) in accordance with the instructions in Section 10, NLG-IN-THE-WELL TEST AND NLG CYLINDER MODIFICATION, of Bellanca SL B-107, dated September 20, 1995. If the nose gear cylinder rod motion is greater than 0.015 inches, prior to further flight, replace the cylinder internal stroke limiting sleeve with a new sleeve, P/N 195577-4, in accordance with the instructions in Section 10, NLG-IN-THE-WELL TEST AND NLG CYLINDER MODIFICATION, of Bellanca SL B-107, dated September 20, 1995.

(f) 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.

(g) An alternative method of compliance or adjustment of the initial or repetitive compliance times that provides an equivalent level of safety may be approved by the Manager, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Rm. 232, Des Plaines, Illinois 60018. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Chicago Aircraft Certification Office.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Chicago Aircraft Certification Office.

(h) The inspections, modifications, and replacements required by this AD shall be done in accordance of Bellanca Service Letter B-107, dated September 20, 1995. 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 Bellanca, Incorporated, P.O. Box 964, Alexandria, Minnesota 56308; telephone (612) 762-1501. Copies may be inspected at the FAA, Central Region, Office of the Assistant Chief 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.

(i) This amendment becomes effective on October 25, 1996.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-6446; AD 90-02-17

Airworthiness Directives; BELLANCA, INCORPORATED Models 14-19-3, 14-19-3A, **17-30**, 17-31 and 17-31TC, **17-30**A, 17-31A and 17-31ATC Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective February 5, 1990.

Regulatory Information

90-02-17 BELLANCA, INCORPORATED: Amendment 39-6446.

Applicability: Models 14-19-3, 14-19-3A, **17-30**, 17-31 and 17-31TC (all serial numbers (S/N)), **17-30**A

(S/N 30263 through 89-301007), 17-31A (S/N 32-15 through 78-32-172) and 17-31ATC (S/N 31004 through 79-31155) airplanes certificated in any category.

Compliance: Required as indicated in the body of the AD, unless already accomplished.

To prevent the collapse of the main landing gear which could result in substantial airframe damage, accomplish the following:

(a) Upon the accumulation of 500 hours total time-in-service (TIS), or within the next 100 hours TIS after the effective date of this AD, whichever occurs later, and each 100 hours TIS thereafter, inspect the left and right drag strut landing gear fitting assemblies, Part Number (P/N) 194153-10, for cracks, deformations, or failures as follows:

NOTE 1: This information is also contained in Bellanca Service Letter B-106, dated September 26, 1989. Penetrant inspection techniques are described in FAA Advisory Circular (AC) 43-3, "Nondestructive Testing in Aircraft." These inspections can be conducted with the fitting assemblies installed on the airplane. Do not apply loads to the landing gear components, particularly the drag strut, as it is possible to move the drag strut to overcenter and cause the landing gear to collapse.

(1) Place jacks or other workstands under the airplane at locations specified in the Bellanca Service Manual to prevent accidental landing gear collapse during this inspection.

(2) Figure 1 to this AD describes the 194153-10 fitting assembly. Clean the aft face of the -1 fitting with Stoddart solvent and a brush.

(3) Inspect for cracks adjacent to the welds which join the -1 fitting to the -2 fitting and -3 brace near the lower aft attachment bolt holes using liquid penetrant inspection techniques and a magnifying glass. If any crack is found, prior to further flight replace the assembly with a new fitting assembly, P/N 194153-30 or P/N 194153-40, as applicable.

(4) Lay a straight-edge along side the lower aft attachment bolts, in accordance with Figure 2 and, using a feeler gage or wire gage of .030 inch thickness, look for any evidence of local deformation (dimpling) in the -1 fitting. If any deformation greater than .030 inches is found, prior to further flight replace the assembly with a new fitting assembly, P/N 194153-30 or P/N 194153-40, as applicable.

NOTE 2: The -30, -40 assemblies can be distinguished from a -10 assembly by measuring the -1, -2, fitting and -3 brace part thickness: -10 part thickness is 0.062 inches, -30, -40 parts thickness is 0.100 inches. A 0.040 Shim (P/N 194167-2 Shim Spar Bracket) is available to provide proper fit between the 194153 fitting assembly and the forward spar.

(5) Check and adjust, as required, the drag strut for correct overcenter using the appropriate procedures in the Bellanca Service Manual.

(6) If the inspections specified above do not indicate any evidence of cracks or local deformation in the -1 fitting, apply zinc chromate or Epibond primer, as necessary, to protect the part and repeat these

inspections as specified above.

(7) The repetitive inspections specified above are not required on the P/N 194153-30 or P/N 194153-40 assemblies.

(b) Airplanes with cracked or deformed fittings may be flown with a special flight permit in accordance with FAR 21.197 to a location where this AD may be accomplished providing that no crack is found during the inspection of paragraph (a)(3) that exceeds 3/8 in. length, or no deformation is found during the inspection of paragraph (a)(4) that is great enough to cause the overcenter of the drag strut to be out of tolerance. In these cases, no special flight permit is allowed.

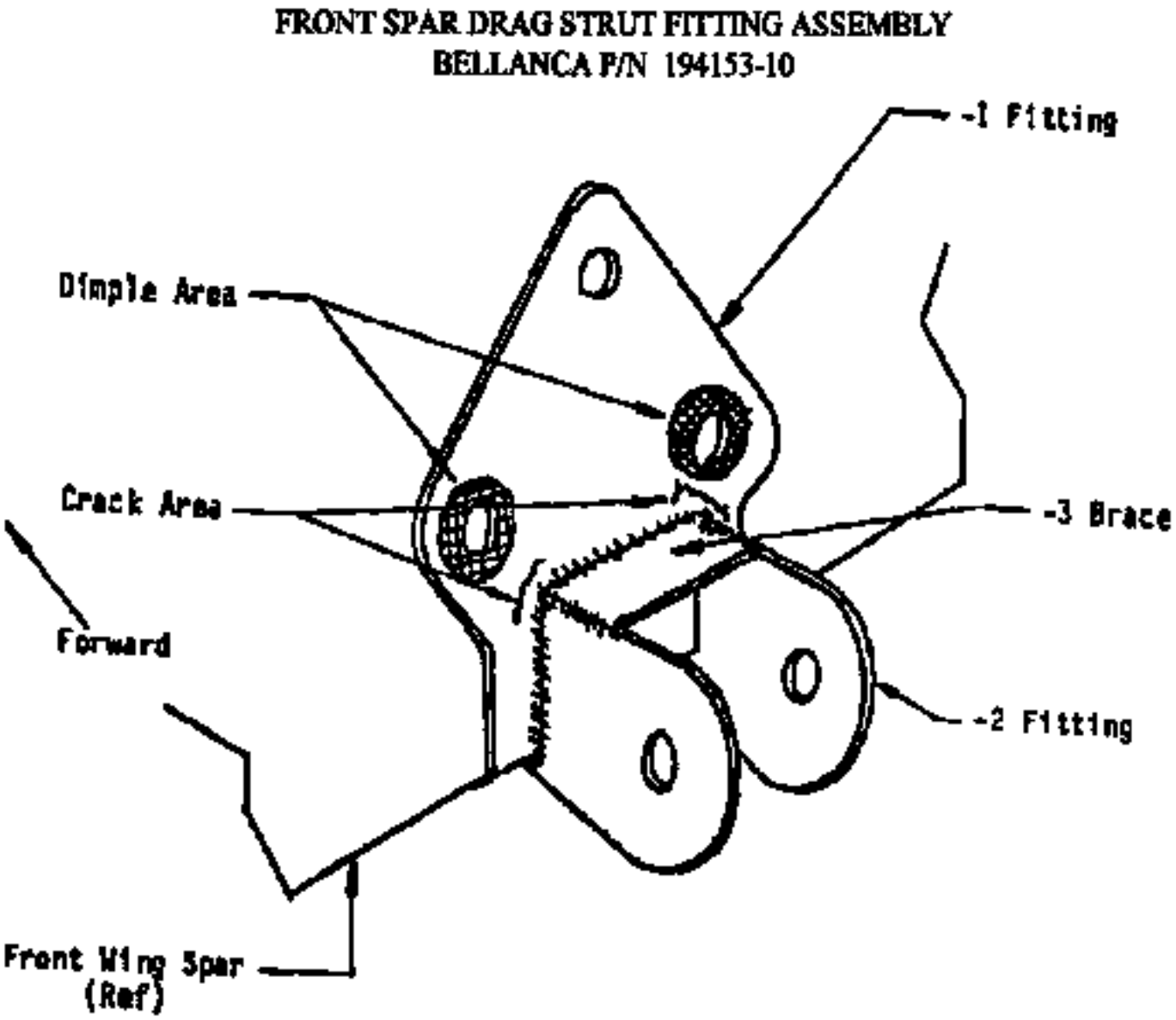
(c) An alternate method of compliance or adjustment of the initial and repetitive compliance times, which provides an equivalent level of safety, may be approved by the Manager, Chicago Aircraft Certification Office, 2300 E. Devon Avenue, Des Plaines, Illinois 60018.

NOTE 3: The request should be forwarded through an FAA Maintenance Inspector, who may add comments and send it to the Manager, Chicago Aircraft Certification Office.

All persons affected by this directive may obtain copies of the documents referred to herein upon request to Bellanca, Inc.; P.O. Box 964, Alexandria, Minnesota 56308; Telephone (612) 762-1501; or may examine these documents at the FAA, Central Region, Office of the Assistant Chief Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

This amendment (39-6446, AD 90-02-17) becomes effective on February 5, 1990.

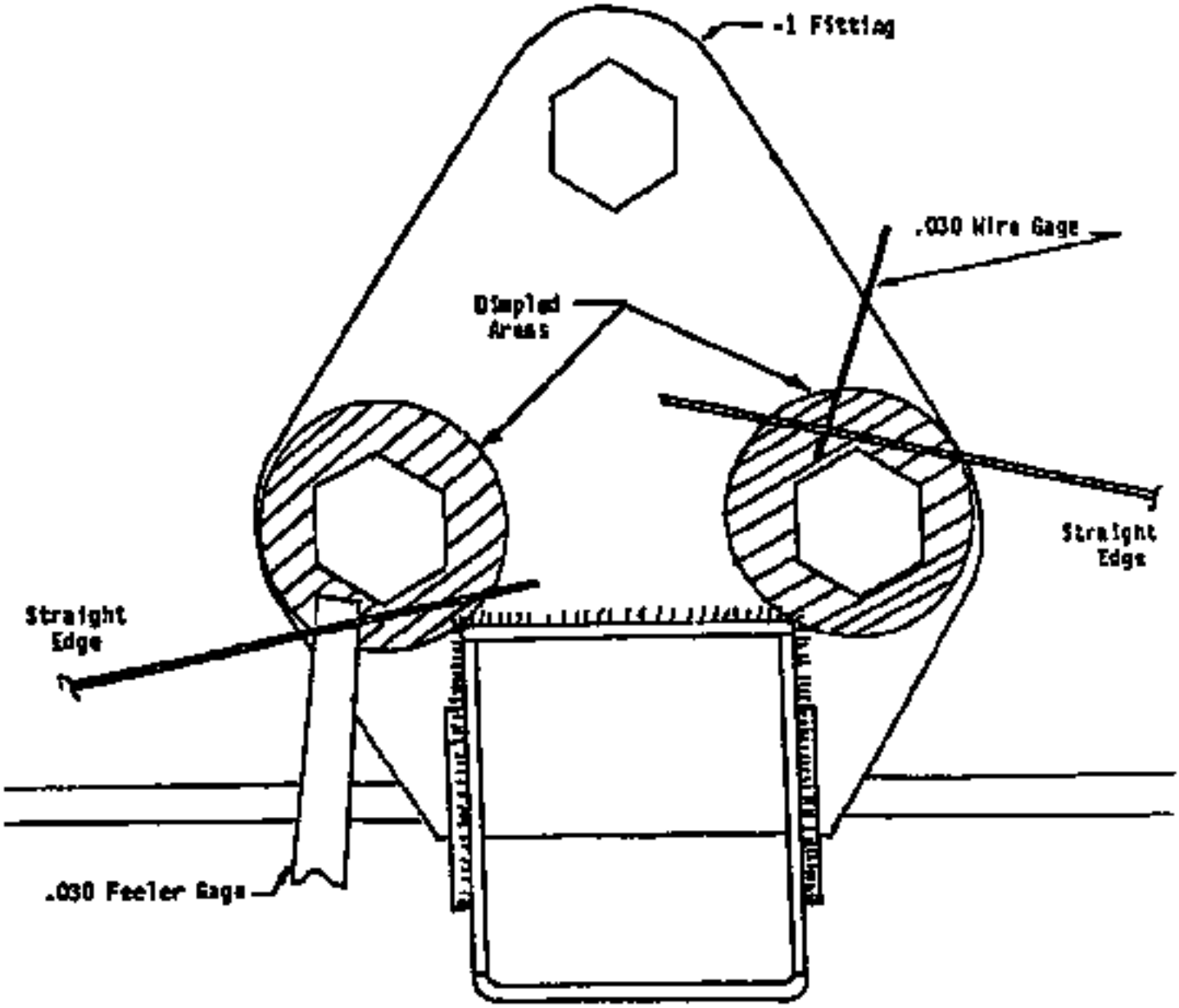
FIGURE 1



AD 90-02-17

FIGURE 2

EXAMPLES OF MEASURING DEPTH OF DIMPLED AREAS



Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3065; AD 77-22-02

Airworthiness Directives; Bellanca Models 14-19-3, 14-19-3A, **17-30** and **17-30**A Series Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective November 2, 1977.

Regulatory Information

77-22-02 BELLANCA AIRCRAFT: Amendment 39-3065. Applies to Bellanca Models 14-19-3 Serial Numbers 4106 thru 4228, 14-19-3A Serial Numbers 4229 thru 4342, **17-30** Serial Numbers 30001 thru 30262 and **17-30**A Serial Numbers 30263 thru 30853 series aircraft equipped with P/N 191106, 191898 nose landing gear engine mount certificated in all categories. Compliance required as indicated below.

1. Within the next 50 hours time in service after the effective date of the airworthiness directive and thereafter at intervals not to exceed 100 hours time in service from the last inspection until Bellanca Kit SK1267-4019 Note 3 is installed, visually inspect with a 10x magnification glass both forward left and right hand portions of the engine mount bed rail frame nose landing gear support structure Bellanca Part No. 191106 and 191898 in accordance with Bellanca Service Letter #B-96 or later FAA approved revisions.

2. If no cracks or tube buckling are found, repaint in accordance with Bellanca's Service Letter #B- 96 and repeat inspection as set forth in paragraph 1 above within next-following 100 hours in service.

3. If cracks are found in the engine mount bed frame, the bed frame must be either modified in accordance with Bellanca Service Kit SK1267-4019 or repaired in accordance with Advisory Circular 43-13-1A, Chapter 2, Section 2. Only those tubes modified in accordance with SK1267-4019 shall be exempt from the inspection provisions of paragraph 1.

4. If tube buckling is found in the engine mount bed frame, the bed frame must be modified in accordance with Bellanca Service Kit SK1267-4019.

5. Aircraft may be flown in accordance with FAR 21.197 to a base where the modification (SK1267-4019) may be performed.

6. Report immediately to Chief, Engineering and Manufacturing Branch, FAA, Great Lakes Region, if cracks are found; telephone (312)694-4500, ext. 424. (Reporting approved by the Office of Management and Budget under OMB No. 04-R0174.)

The Bellanca Aircraft inspections and procedures identified in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 522(a)(1). The Bellanca Aircraft Service Letters incorporated herein may be obtained upon request to Bellanca Aircraft Corporation, P.O. Box 69, Municipal Airport, Alexandria, Minnesota 56308, telephone (612)762-1501. These documents may also be examined at the FAA Great Lakes Region, 2300 East Devon Avenue, Des Plaines, Illinois 60018 and at FAA Headquarters, 800 Independence Avenue, S.W., Washington, D.C. 20591. A historical file on this AD which includes the incorporated material in full is maintained by the FAA at its headquarters in Washington, D.C. and the Great Lakes Region.

This amendment becomes effective November 2, 1977.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2713; AD 76-08-04

Airworthiness Directives; Bellanca Model: 14-19, 14-19-2, 14-19-3, 14-19-3A, **17-30**, **17-30**A, 17-31, 17-31A, 17-31TC and 17-31ATC Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective September 9, 1976.

Regulatory Information

76-08-04 BELLANCA: Amendment 39-2583 as amended by Amendment 39-2713. Applies to Bellanca Models: 14-19, 14-19-2, 14-19-3, 14-19-3A, **17-30**, **17-30**A, 17-31, 17-31A, 17-31TC and 17-31ATC certificated in all categories.

Compliance required as indicated.

To detect deterioration in wood wing, accomplish Part I and Part II of Bellanca Aircraft Corporation Service Letter No. 87A dated April 12, 1976, as follows:

(a) For airplanes which have been produced prior to the preceding eleven months comply with Part I within the next 10 hours time in service, or within the next 30 days, whichever occurs first after the effective date of this Airworthiness Directive, unless already accomplished.

(b) Comply with Part II not later than 13 months after the effective date of this AD.

(c) After the initial inspection specified in (a), comply with Part I at each annual inspection required by Federal Aviation Regulations Part 91.

If wood deterioration is detected, repair must be accomplished in accordance with FAA Approved Standard Practice AC 43-13-1A or FAA approved equivalent and/or manufacturer's recommendations prior to further flight except that the airplane may be flown in accordance with FAR 21.197 to a base where the repair can be performed.

The manufacturer's Service Letter No. 87A identified and described in this directive is incorporated herein pursuant to 5 U.S.C. 552 (a)(1). All persons affected by this directive who have not already received the documents from the manufacturer may obtain copies upon request from Bellanca Aircraft Corporation, Box 624, Municipal Airport, Alexandria, Minnesota 56308.

These documents may also be examined at the office of Regional Counsel, Great Lakes Region, 2300 East Devon Avenue, Des Plaines, Illinois 60018 and at FAA Headquarters, 800 Independence Avenue, S. W., Washington D.C. A historical file on this AD which includes the incorporated material in full is maintained by the FAA at its headquarters in Washington D.C. and at the Great Lakes Region Engineering and Manufacturing Branch, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Amendment 39-2583 became effective April 22, 1976.
This amendment 39-2713 becomes effective September 9, 1976.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-5684; AD 87-11-01 R1

Airworthiness Directives; Bellanca Model 17- 30, **17-30**A, 17-31, 17-31A, 17-31TC, and 17-31ATC Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 28, 1987.

Regulatory Information

87-11-01 R1 BELLANCA: Amendment 39-5624 as amended by Amendment 39-5684. Applies to Models 17- 30, **17-30**A, 17-31, 17-31A, 17-31TC, and 17-31ATC (all serial numbers) airplanes certificated in any category.

Compliance: Required as indicated, unless already accomplished.

To preclude engine power loss due to either the accumulation of water or other contaminants in the fuel system or due to mismanagement of available fuel resources caused by lack of pilot familiarity with the airplane fuel system design and operating procedures, accomplish the following:

(a) For all airplanes, within the next 30 days after the effective date of this AD or at the next annual inspection, whichever occurs later, and thereafter at each annual inspection, inspect the fuel filler caps and fuel filler well (scupper) drains in accordance with the instructions contained in Section II of Bellanca Service Letter No. B-105, dated February 2, 1987.

(b) For Bellanca Models and Serials identified in Table 1., within the next 30 days after the effective date of this AD, accomplish the following:

(1) Install the appropriate AFM revision, as specified in Table 1.

(2) Install permanent placards which state the following at the specified airplane locations:

(i) For Models **17-30** and **17-30**A, on the instrument panel adjacent to the auxiliary fuel pump switch: "USE TO RESTORE FUEL PRESSURE AND RELEASE TO PREVENT ENGINE FLOODING."

(ii) On the instrument panel adjacent to the fuel quantity gauges: "FUEL GAUGES READ QUANTITY IN TANK SELECTED, MAIN FUEL TANK GAUGE INOPERATIVE WHEN AUXILIARY TANK SELECTED. FUEL REMAINING IN SELECTED TANK CANNOT BE USED SAFELY IN FLIGHT WHEN GAUGE READS ZERO."

(iii) On the console adjacent to the fuel selector valve (on airplanes with a 58 gallon capacity fuel system):

"LEFT TANK: 15.5 GALLONS
RIGHT TANK: 15.5 GALLONS
AUXILIARY TANK: 20 GALLONS
USE AUX. TANK IN LEVEL FLIGHT ONLY."

(3) Placards specified in (b)(2)(i), (b)(2)(ii), and (b)(2)(iii) may be fabricated and installed using letters with minimum 1/10 inch height.

NOTE: The AFM revisions specified above (and associated placards) are available at a nominal cost from Bellanca, Inc., P.O. Box 964, Alexandria, Minnesota 56308; Telephone (612) 762-1501. The placards are revised versions of existing placards. The existing placards may either be removed and discarded or overlaid by the corresponding revised placard. The placard specified in paragraph (2)(iii) deletes information which was contained in the placard being replaced. This information, however, is presented more clearly in the placard of paragraph (2)(ii) which is a new placard for the airplanes to which paragraph (2)(iii) applies.

(c) The requirements of paragraph (b) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) on any airplane owned or operated by him, provided the airplanes are not used in air taxi operations. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent means of compliance with this AD may be used if approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Ave., Des Plaines, Illinois 60018; Telephone (312) 694-7357.

All persons affected by this directive may obtain copies of the document(s) referred to herein upon request to Bellanca, Inc., P.O. Box 964, Alexandria, Minnesota 56308; or may examine the document(s) referred to herein at FAA, Office of the Regional Counsel, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106.

Amendment 39-5624 became effective June 22, 1987.

This amendment, 39-5684, becomes effective on August 28, 1987.

Table 1.
Serial Numbers (may be AFM Revision Model prefixed with year of manufacture) to be installed.

17-30	30001 - 30262	Rev. 15, dtd. 2/2/87
-30A	30263 - 30514 (except 30498)	Rev. 6, dtd. 2/2/87
-31	32-1 - 32-14	Rev. 2, dtd. 2/2/87
-31A	32-15 - 32-102	Rev. 8, dtd. 2/2/87
-31TC	31001 - 31003	Rev. 2, dtd. 2/2/87
-31ATC	31004 - 31046	Rev. 8, dtd. 2/2/87

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2372; AD 75-20-06

Airworthiness Directives; Bellanca Model **17-30**, **17-30**A, 17-31, 17-31TC, 17-31ATC, 14-19-3A, and 17-31A Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective September 26, 1975.

Regulatory Information

75-20-06 BELLANCA: Amendment 39-2372. Applies to Model **17-30**, **17-30**A (S/N 30263 through S/N 76-30811), 17-31, 17-31TC, 17-31ATC (S/N 30004, S/N 31004 through S/N 76-31124), 14-19-3A, and 17-31A (S/N 32-15 through S/N 76-32-163) airplanes certificated in all categories.

Compliance required upon accumulation of 300 hours time in service or within the next 25 hours time in service from the effective date of this Airworthiness Directive (whichever occurs later) unless already accomplished, and thereafter at intervals not to exceed 100 hours time in service from the last inspection until Bellanca Kit SK1234789-0004 is accomplished.

To detect cracks in either vertical side fuselage tube (F. S. 7), which is adjacent to the horizontal stabilizer carry-through, in the area near the upper fuselage longeron, accomplish the following:

A. Inspect the vertical tube for circumferential cracks at the upper weld, and between the upper weld and the horizontal stabilizer carry-through tube, all around the tube.

B. If cracks are found, repair and modify in accordance with Bellanca Kit SK1234789-0004 or an equivalent approved by the Chief, Engineering and Manufacturing Branch, Great Lakes Region, before further flight, except that the airplane may be flown, in accordance with FAR 21.197, to a base where the repair can be performed.

C. If no cracks are found, no further action is required until the next inspection.

Bellanca Service Letter No. 85 or 85A pertains to this same subject.

This amendment becomes effective September 26, 1975.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-5489; AD 86-25-06

Airworthiness Directives; Bellanca Model **17-30**, **17-30**A, 17-31, 17-31A, 17-31TC and 17-31ATC Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective December 22, 1986.

Regulatory Information

86-25-06 BELLANCA: Amendment 39-5489. Applies to the following models and serial numbered airplanes, certificated in any category, not equipped with an FAA approved drain valve for each wing main fuel tank and each wing auxiliary fuel tank:

MODEL	SERIAL NUMBERS (S/N)
17-30	All
17-30A	S/Ns 30-263 thru 30-977
17-31	All
17-31A	S/Ns 32-15 thru 32-172
17-31TC	All
17-31ATC	S/Ns 31-004 thru 31-155

Note: The serial numbers listed above may be prefixed by a two-digit number indicating the last two digits of the year of manufacture.

Compliance: Required within the next 50 hours time-in-service after the effective date of this AD, unless already accomplished.

To prevent engine power loss due to the accumulation of water or other contaminants in the fuel system, accomplish the following:

(a) For each wing main fuel tank and each wing auxiliary fuel tank not having an FAA approved drain valve of any style, install a flush quick drain valve as follows:

(1) Drain the fuel tank.

(2) Remove the fuel tank drain plug, AN 932-2, from the drain boss at the bottom aft portion of the fuel tank. For tanks comprised of interconnected cells, each cell having its own drain boss, remove the drain plug from the inboard cell of the tank.

(3) Install a flush quick drain valve, P/N F391-18 or equivalent.

Note: These pipe thread valves produced by Manufacturing Division, Inc. are available from Bellanca, Inc., Post Office Box 964, Alexandria, Minnesota 56308; Telephone (612) 762-1501.

(4) Refuel the tank and check for leaks.

(b) Fabricate and install a permanent placard in full view of the pilot, using letters with minimum 1/10 inch height, which states the following: "DRAIN ALL FUEL SUMPS BEFORE FIRST FLIGHT OF EACH DAY."

(c) The requirements of paragraph (b) of this AD may be accomplished by the holder of a pilot certificate issued under Part 61 of the Federal Aviation Regulations (FAR) on any airplane owned or operated by him. The person accomplishing these actions must make the appropriate aircraft maintenance record entry as prescribed by FAR 91.173.

(d) Airplanes may be flown in accordance with FAR 21.197 to a location where this AD may be accomplished.

(e) An equivalent method of compliance with this AD, if used, must be approved by the Manager, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018; Telephone (312) 694-7357.

This amendment becomes effective on December 22, 1986.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1461; AD 72-13-03

Airworthiness Directives; Bellanca Model **17-30** Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 20, 1972.

Regulatory Information

72-13-03 BELLANCA: Amdt. 39-1461. Applies to Model **17-30** Airplanes.

Compliance: As indicated below, unless already accomplished.

To prevent possible engine flooding when using the fuel boost pump, accomplish either Part A or Part B as applicable: PART A

1. On those airplanes equipped with Airborne Model 2B6-9 fuel boost pumps (Airplane serial numbers 30217 through 30262 were delivered from the factory with this model pump installed) which have not been modified in accordance with AD 71-13-04:

a. Within 50 hours' time in service after June 26, 1971, modify the fuel boost pump electrical circuit by installing a three (3) position toggle switch, a three (3) ohm twenty (20) watt resistor, a switch guard and a five (5) amp circuit breaker between the bus and the switch in accordance with Bellanca Service Letter No. 61A, Revision A, dated April 26, 1971, or later FAA approved revisions, and Bellanca Drawing SK-2-1040, Sheet 1, Revision D. Do not connect any other equipment to the fuel boost pump circuit.

b. Within 50 hours' time in service after June 26, 1971, insert Airplane Flight Manual, Revision No. 13, dated May 26, 1971, in the Airplane Flight Manual. (Revision No. 13 is included in Bellanca Service Kit SK-2-1040 referred to in Service Letter No. 61A, Revision A.)

c. Any alternate equivalent method of compliance with Paragraphs a and b above must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region, except that an equivalent five (5) amp circuit breaker may be utilized.

2. On those airplanes equipped with Airborne Model 2B6-9 fuel boost pumps (Airplane serial numbers 30217 through 30262 were delivered from the factory with this model pump installed) which have complied with AD 71-13-04:

a. Within 50 hours' time in service after the effective date of this AD and install a five (5) amp circuit breaker between the bus and the fuel boost pump switch in accordance with Bellanca Drawing SK-2-1040, Sheet 1, Revision D. Do not connect any other equipment to the fuel boost pump circuit.

b. Any alternate equivalent method of compliance with Paragraph a above must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region, except that an equivalent five (5) amp circuit breaker may be utilized. PART B

On those airplanes equipped with Weldon fuel boost pump Models 4020-A2A or 10050- A (Airplane serial numbers 30002 through 30216) were delivered from the factory with one of these model pumps installed:

1. Effective immediately, do not operate the fuel boost pump any longer than is necessary to achieve required fuel pressure. (Continued use of the fuel boost pump may cause engine flooding under certain operating conditions.)

2. Within 10 hours' time in service after September 14, 1971, install a placard beneath or adjacent to the fuel boost pump switch to read as follows:

"TO PREVENT ENGINE FLOODING TURN OFF FUEL BOOST PUMP IMMEDIATELY AFTER

FUEL PRESSURE IS RESTORED."

NOTE: The operator may make and install this placard using letters approximately 1/8 inch in height.

3. Within 50 hours' time in service after the effective date of this AD:

a. Install a two (2) position spring loaded switch and a five (5) amp circuit breaker between the bus and the fuel boost pump switch in accordance with Bellanca Service Letter No. 71, dated February 16, 1972, or later FAA approved revisions, and Bellanca Drawing SK-2-1040, Sheet 2, Revision A. Do not connect any other equipment to the fuel boost pump circuit.

b. Insert Airplane Flight Manual, Revision No. 14, dated April 17, 1972, in the Airplane Flight Manual. (Revision No. 14 is included in kit referred to in Service Letter No. 71.)

c. Remove placard installed under Part B, Paragraph 2, and install, in same location, placard Bellanca Part No. SK-2-1043 which reads as follows:

"AUX FUEL PUMP
USE TO RESTORE FUEL PRESSURE
RELEASE TO PREVENT ENGINE
FLOODING"

4. Any alternate equivalent method of compliance with Part B must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region, except that an equivalent five (5) amp circuit breaker may be utilized.

This AD supersedes AD 71-13-04.
This amendment becomes effective June 20, 1972.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1205; AD 71-10-01

Airworthiness Directives; Bellanca Model **17-30** Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective May 8, 1971.

Regulatory Information

71-10-01 BELLANCA: Amendment 39-1205. Applies to Model **17-30** (Serial Numbers 30002 through 30216) Airplanes.

Compliance: Required as indicated unless already accomplished.

To prevent hazardous fuel leakage in these airplanes, accomplish the following:

Within 50 hours time in service after the effective date of this AD, install an electric fuel pump seal chamber drain in accordance with instructions contained in Bellanca Service Letter No. 64, dated April 6, 1971, or any other method approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region.

This amendment becomes effective May 8, 1971.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-679; AD 68-23-08

Airworthiness Directives; Bellanca Model 14-19-3A and Model **17-30** Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective November 22, 1968.

Regulatory Information

68-23-08 BELLANCA: Amendment 39-679. Applies to Model 14-19-3A (Serial Numbers 4229 through 4342) and Model **17-30** (Serial Numbers 30001 through 30151) airplanes.

Compliance required as indicated:

To prevent vibration of the horizontal tail surfaces, and to correct inaccurate airspeed indication, accomplish the following:

A) On or before November 22, 1969, unless already accomplished, modify the elevator trim tab system by the installation of redesigned elevator trim tab and actuation rod and all related changes in accordance with Part A of Bellanca Service Letter No. 46, dated October 28, 1968, or any other method approved by Chief, Engineering and Manufacturing Branch, Central Region, Federal Aviation Administration.

B) Unless already accomplished, after completion of the modifications required by Paragraph A, the restricted forward center of gravity limit must be incorporated into the respective Airplane Flight Manuals by accomplishing the following:

(1) To the Model 14-19-3A Airplane Flight Manual, add Revision No. 5 dated October 26, 1968.

(2) To the Model **17-30** Airplane Flight Manual, add Revision No. 4 dated August 28, 1968.

C) Until the elevator trim tab has been modified in accordance with Paragraph A, operation of the airplane in excess of 180 miles per hour (156 knots) is prohibited.

D) Until the elevator trim tab has been modified in accordance with Paragraph A, a placard must be installed in the airplane adjacent to the airspeed indicator, in full view of the pilot with the following wording:

"NEVER EXCEED SPEED 180 MPH (156 KNOTS) IAS".

E) Within the next 25 hours' time-in-service after the effective date of this airworthiness directive, unless already accomplished, modify or replace the static vent buttons in accordance with Part B of Bellanca Service Letter No. 46, dated October 28, 1968, or any other method approved by Chief, Engineering and Manufacturing Branch, Central Region, Federal Aviation Administration.

AD 68-12-02 is hereby superseded.
This amendment becomes effective November 22, 1968.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1367; AD 72-01-01

Airworthiness Directives; Bellanca Model 14-19-2, 14-19-3, 14-19-3A and **17-30** Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective December 31, 1971.

Regulatory Information

72-01-01 BELLANCA: Amendment 39-1367. Applies to following airplanes:

Models	Serial Numbers Affected

14-19-2	4001 thru 4105
14-19-3	4106 thru 4228
14-19-3A	4229 thru 4342
17-30	30001 thru 30262

Compliance: Required as indicated unless already accomplished.

To detect leakage of flammable fluids from flexible hose assemblies in the engine compartment within 50 hour's time in service after the effective date of this AD and thereafter at intervals not to exceed 100 hours' time in service, accomplish the following:

A) Visually, or by any other method approved by FAA, inspect fuel lines as follows:

1. Pressurize the fuel lines with boost pump operating in high position. When accomplishing this test, the mixture control must be in the idle cutoff position.

2. With fuel lines pressurized, examine all flexible hose exteriors in the engine compartment for evidence of fuel stains, wetness or leakage.

3. After pressure testing fuel hoses, allow sufficient time for excess fuel to drain overboard from the engine manifold before attempting an engine start.

B) Visually, or by any other method approved by the FAA, inspect oil lines for evidence of wetness or leakage.

C) If, as a result of the inspections required by Paragraphs A or B, fuel or oil stains, wetness or leaking is found, replace with a serviceable hose assembly.

D) Inspections required by Paragraphs A and B will no longer be required when hose assemblies are replaced with assemblies identified by either a Bellanca metal identification band or a TSO-C53a Type C identification band. (This does not preclude continued inspections of this area as required by FAR 91.)

NOTE: The airplane models listed above use either Aeroquip 601 series or Stratoflex 156 series flexible fluid hoses in their engine compartments. These hose assemblies are available under Bellanca 198003-x series part numbers.

This amendment becomes effective December 31, 1971.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-5454; AD 76-23-03 R1

Airworthiness Directives; Bellanca MN Models **17-30**, **17-30**A, 17-31, and 17-31A, Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective November 7, 1986.

Regulatory Information

76-23-03 R1 BELLANCA: Amendment 39-2772, as amended by Amendment 39-5454. Applies to BellancaMN Models **17-30**, serials 30-139 thru 30-262, **17-30**A, serials 30-263 and up, 17-31, serials 32-1 thru 32-14, and 17-31A, serials 32-15 and up, airplanes certificated in all categories.

For airplanes with 200 or more hours time in service on the effective date of this AD, compliance is required within the next 10 hours time in service and thereafter at intervals not to exceed 100 hours time in service or the next annual inspection, whichever occurs first.

For airplanes with less than 200 hours time in service on the effective date of this AD compliance is required before the accumulation of 210 hours time in service and thereafter at intervals not to exceed 100 hours time in service or the next annual inspection, whichever occurs first.

To prevent exhaust system failures which could result in cabin air contamination and heat damage to components in the nacelle accomplish the following:

(A) Visually inspect the muffler and tailpipe assemblies for cracks paying particular attention to the ball joint welds, the outlets of the muffler and resonator, and the support for the tailpipe assembly.

(B) Inspect the exhaust system for freedom of movement at the ball joints by removing the tailpipe support bolts. When the bolts are removed:

(1) The left tailpipe assembly must drop from its supported position unassisted.

(2) The right tailpipe assembly must move from its supported position when a two pound force is applied one inch below the resonator can 90 degrees to the axis of the resonator, i.e., the assembly must move when a two pound pull is applied one inch below the resonator can forward and down.

(3) If a greater forces than the above are required:

(a) Disassemble the ball joint and inspect for surface abnormalities such as galling or wear marks.

(b) Rework the ball joints as required to correct noted discrepancies.

(c) Reassemble the ball joint. Do not overtighten the clamp as this may distort ball surfaces.

(4) Repeat (B)(1) thru (B)(3) as required until compliance with (B)(1) and (B)(2) is demonstrated.

Amendment 39-2772 became effective November 23, 1976.
This amendment, 39-5454, becomes effective November 7, 1986.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1129; AD 70-26-02

Airworthiness Directives; WOODWARD: Applies to Woodward Propeller Governors

PDF Copy (If Available):

Preamble Information

DATES: Effective December 27, 1970.

Regulatory Information

70-26-02 WOODWARD: Amdt. 39-1129. Applies to Woodward propeller governors of the following listed models having serial numbers below 992601 which were manufactured prior to 1970 used on single, reciprocating engine aircraft: Woodward Governor Models 210452, A210452, B210452, C210452, D210452, E210452, F210452, G210452, H210452, J210452, K210452, L210452, M210452,

P210452, 210453, 210458, 210460, B210460, 210462, A210462, 210472, and C210472. Date of manufacture can be determined from a decal attached to the governor body which shows the quarter and the year. Example: "1Q70" indicates first quarter 1970.

Compliance: Required within the next 50 hours' time in service after the effective date of this AD, unless previously accomplished.

To prevent loss of propeller control accomplish the following or an equivalent procedure approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region.

A. Inspect the propeller governor lever arm for security and engagement on the speed control shaft as follows:

1. Inspect axial security by applying, alternately, in both directions, a manual force of 5 to 10 pounds to the lever arm directly in line with the axis of the shaft. Do not mistake end play of the shaft in the governor cover for a loose lever.

2. Inspect rotational security by observing the arm and shaft while the cockpit propeller control is moved from full increase to full decrease and back to full increase RPM positions.

3. Inspect axial location of lever arm and offset lever arm extension on the shaft. On those installations which use an offset extension which bolts to the outboard face of the lever arm and has an alignment hole for locating on the shaft, the shaft must protrude through the full thickness of the extension. When no extension is used the shaft must protrude beyond the lever arm by at least .050 inch.

B. If the inspections in accordance with Paragraphs A1 and A2 disclose movement of the lever arm relative to the shaft or if the location of the arm or extension do not meet the limits defined in Paragraph A3 proceed as follows:

1. Remove arm from shaft and inspect serrations on both parts for wear and damage. Before removing arm, provisions, such as match-marking, should be made to assure reinstallation in the same circumferential location of the shaft. Later design shafts have a retaining ring and groove at the end of the shaft serrations to provide positive retention of the lever arm. To remove the arm from these shafts move the arm toward the governor cover until the retainer is exposed, then remove retainer.

2. If the serrations are damaged or excessively worn, replace the governor with a serviceable unit.

3. If the serrations are in satisfactory condition replace the lever arm on the shaft in its original circumferential location. If retainer ring was removed pursuant to Paragraph B1 reinstall it. Position axially on shaft to maintain .020 to .045 inch clearance between bottom side of lever arm and the top of governor cover at the maximum RPM setting. Torque the clamping screw in the lever arm to 33 to 38 inch pounds. (This value is specified in Woodward Overhaul Bulletin 33017A.) Recheck security per Paragraph A and if tight, safety the clamping screw with AMS 5685 .024-.026 wire or equivalent, taking care that the wire will not interfere with the aircraft manufacturer's lever arm extension.

4. Assure security of aircraft linkage to governor. If any aircraft linkage settings were changed as a result of work performed above, check rigging in accordance with the aircraft manufacturer's instructions.

Woodward FAA-approved Service Bulletin No. 33534 or later FAA-approved revisions pertain to this subject.

NOTE: The above listed governors may be installed on the following single, reciprocating engine aircraft but this listing is not all inclusive:

BEECH Models E33, F33, E33A, E33C, F33A, F33C, 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 36 and A36 airplanes.

BELLANCA Models 14-19-3A, **17-30**, **17-30**A, 17-31, 17-31A, 17-31TC, 17-31ATC airplanes.

CESSNA Models 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 185, 185A, 185B, 185C, 185D, 185E, A185E, 188, A188, 188A, A188A, 206, U206, P206, U206A, P206A, P206B, TU206A, TU206B, TP206A, TP206B, U206B, P206C, TP206C, P206D, TP206D, P206E, TP206E, U206C, TU206C, U206D, TU206D, U206E, TU206E, 207, T207, 210B, 210C, 210-5(205), 210-5A(205A), 210D, 210E, T210F, 210F, T210G, T210H, 210G, 210H, T210J, 210J, 210K and T210K airplanes.

MAULE Models M-4-210, M-4-210C, M-4-210S, M-4-210T, M-4-220, M-4-220C, M-4-220S, M-4-220T and M-4-180 airplanes.

MOONEY Models M20C and M20D airplanes.

NAVION H Model airplanes.

This amendment becomes effective December 27, 1970.

Footer Information

Comments