Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

AD 64-09-05

Airworthiness Directives; Piper Model PA-30 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective April 29, 1964.

Regulatory Information

64-09-05 PIPER: Amdt. 721 Part 507 Federal Register April 25, 1964. Applies to Model PA-30 Aircraft Serial Numbers 30-1 to 30-321 Inclusive.

Compliance required as indicated.

(a) Within the next 10 hours' time in service after the effective date of this AD, and within every 10 hours' time in service thereafter until a new alternate air door is installed per (b):

(1) Inspect each engine induction system air takeoff assembly, P/N 23810- 00, for signs of hinge wear at the alternate air door P/N 23809-00.

(2) Replace worn or loose alternate air doors before further flight.

(b) Within the next 50 hours' time in service after the effective date of this AD, unless already accomplished, replace the P/N 23809-00 alternate air door with a new door P/N 23809-07 in accordance with Piper Kit Instructions 756794. After the new part is installed, the repetitive inspections in paragraph (a) are no longer required.

(Piper Service Bulletin No. 220 covers this same subject.)

This directive effective April 29, 1964.

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DEPARTMENT OF TRANSPORTATION

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14 CFR Part 39

AD 64-16-06

Airworthiness Directives; Piper Model PA-30 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 20, 1964.

Regulatory Information

64-16-06 PIPER: Amdt. 767 Part 507 Federal Register July 21, 1964. Applies to Model PA-30 Aircraft, Serial Numbers 30-41, 30-82, 30-83, 30-104 and 30-123.

Compliance required within 25 hours' time in service after the effective date of this AD unless already accomplished.

Because of the possible presence of welds with inadequate penetration in the nose gear retraction tube, replace the present tube with a redesigned nose gear retraction tube, Piper P/N 21109-05.

NOTE: The new tube can be identified by the two bead weld slots on each end of the

tube.

(Piper Service Letter No. 409, dated October 9, 1963, provides replacement method instructions.)

This directive effective August 20, 1964.

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Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

AD 64-21-05

Airworthiness Directives; Piper Model PA-30 and PA-23-250 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective September 16, 1964.

Regulatory Information

64-21-05 PIPER: Amdt. 809 Part 507 Federal Register September 15, 1964. Applies to Model PA-30 Aircraft Equipped With the Hartzell HC-E2YL-2B/7663-4 Propeller and Model PA-23-250 Aircraft Equipped With the Hartzell HC-E2YK-2RB/8465-7R Propeller.

Compliance required as indicated.

There have been several instances of propeller failure on the Piper PA-30 aircraft. The replacement of governor relief valve springs in accordance with Hartzell Service Bulletin No. 88 dated July 2, 1964, as amended July 8, 1964, has not eliminated these failures. The propeller installation on Piper Model PA-23-250 is similar in design and operation to that used on the Model PA-30. Accordingly, this AD is being made applicable to both

Models PA-30 and PA-23-250. To preclude further failures, comply with the following:

(a) For aircraft having propellers previously serviced in accordance with Hartzell Service Bulletin No. 88 dated July 2, 1964, as amended July 8, 1964, service the propeller governors in accordance with Hartzell Service Bulletin No. 88A dated August 4, 1964, within 10 hours' time in service after the effective date of this AD.

(b) For aircraft having propellers which have not been previously serviced in accordance with Hartzell Service Bulletin No. 88A dated July 2, 1964, as amended July 8, 1964, service the propellers in accordance with these service bulletins and, in addition, in accordance with Hartzell Service Bulletin No. 88A dated August 4, 1964, within 10 hours' time in service after the effective date of this AD.

This supersedes AD 64-16-08.

This directive effective September 16, 1964.

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Federal Aviation Administration

14 CFR Part 39

Amendment 39-15; AD 64-28-03

Airworthiness Directives; Piper Model PA-30 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective December 24, 1964.

Regulatory Information

64-28-03 PIPER: Amdt. 39-15 Part 39 Federal Register December 24, 1964. Applies to Model PA-30 Aircraft, Serial Numbers 30-1 through 30-565.

Compliance required within 30 hours' time in service after the effective date of this AD, unless already accomplished:

As a result of instances of progressively stronger stabilator vibration, accomplish the following:

Install a new design stabilator torque tube, Piper P/N 22655-07, in accordance with the instructions attached to Piper Service Bulletin No. 222A, dated August 10, 1964, or an

equivalent modification approved by the Engineering and Manufacturing Branch, FAA Eastern Region and then remove the "Do not exceed 205 m.p.h. IAS" placard.

NOTE: The original stabilator torque tube removed during compliance with this AD should be destroyed to avoid inadvertent reinstallation.

(Piper Service Letter No. 428, dated June 30, 1964, and Piper Service Bulletin No. 222A dated August 10, 1964, pertains to this subject.)

This supersedes AD 64-16-07.

This directive effective December 24, 1964.

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-66; AD 65-11-04

Airworthiness Directives; Piper Models PA-24-250, PA-24-260, PA-24-400, and PA-30 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective May 15, 1965.

Regulatory Information

65-11-04 PIPER: Amdt. 39-66 Part 39 Federal Register May 14, 1965. Applies to Models PA-24-250, PA-24-260, PA-24-400, and PA-30 Aircraft Equipped with a Mitchell Altimatic II Autopilot.

Compliance required within the next 25 hours' time in service after the effective date of this AD, unless already accomplished.

To prevent further jamming of the stabilator control system by the autopilot pitch servo breakaway ball link, accomplish the following:

(a) On autopilots with pitch servos, Mitchell P/N 1X312C, having serial numbers listed on page 2 of Mitchell Service Information Bulletin No. A55, dated March 23, 1965, install pitch servo rack, Mitchell P/N 44A75-1, and spacer, Mitchell P/N 43A284 or Piper P/N 25422, in accordance with the accomplishment instructions in that Service Bulletin, or later FAA-approved revision, or an FAA-approved equivalent. Attach spacer using AN510-10R16 screws, AN960-10 washers, and MS20365-1032C nuts, or FAA-approved equivalents.

(b) Install a fairlead in the fuselage in accordance with the sketch in Piper Service Bulletin No. 224, dated April 7, 1965, or later FAA-approved revision, or an FAA-approved equivalent.

This directive effective May 15, 1965.

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Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-266; AD 66-18-04

Airworthiness Directives; Piper Model PA-24-260 and PA-30 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 10, 1966.

Regulatory Information

66-18-04 PIPER: Amdt. 39-266 Part 39 Federal Register July 26, 1966. Applies to Model PA-24-260 and PA-30 Airplanes, Serial Numbers 24-4247, 24-4300 through 24-4443, 24- 4445 through 24-4448, 24-4450 through 24-4452, 24-4454 through 24-4456, 24-4461, 24-4465, 24-4467, 24-4474, 24-4475, 30-853, 30-902 through 30-1087, 30-1089 through 30-1093, 30- 1095, 30-1096, 30-1098 through 30-1106, 30-1109, 30-1112, 30-1113, 30-1117, 30-1120, 30- 1127, and 30-1129 through 30-1137.

Compliance required within the next 10 hours' time in service after the effective date of this AD, unless already accomplished.

To prevent inadvertent unlatching of the baggage door, accomplish the following:

(a) Inspect the baggage door latch to ensure that the latch extends through the latch striker plate 1/4 inch +0, -1/16 inch, measured from the top of the striker plate.

(b) If the latch does not extend 1/4 inch +0, -1/16 inch through the latch striker plate, before further flight accomplish the following, or an FAA-approved equivalent:

Replace the present latch striker plate retaining screws with AN 526-1032R14 screws and insert AN 960-10 washers between the door jamb and the latch striker plate, to obtain the 1/4 inch +0, -1/16 inch dimension. However, if more than three washers would be required, rework the door jamb to obtain the 1/4 inch +0, -1/16 inch dimension in an FAA-approved manner.

(Piper Service Letter No. 478, dated June 13, 1966, pertains to this subject).

This directive effective August 10, 1966.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-311; AD 66-28-06

Airworthiness Directives; PIPER Model PA-30 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective November 25, 1966.

Regulatory Information

66-28-06 PIPER: Amdt. 39-311 Part 39 Federal Register November 15, 1966. Applies to Model PA-30 Airplanes, Serial Numbers 30-853, 30-902 through 30-1080, 30-1082 through 30- 1136, 30-1138 through 30-1198, 30-1200 through 30-1217, 30-1219 through 30-1226, and 30- 1228 through 30-1253.

Compliance required as indicated, unless already accomplished.

As a result of excessive vibration that could result in partial failure of the stabilator, accomplish the following:

(a) Within the next 10 hours' time in service after May 3, 1966, attach the following

operating limitation placard to the airspeed indicator in full view of the pilot:

"Do not exceed 218 mph (190 knots) IAS."

(b) Within the next 50 hours' time in service after November 25, 1966, accomplish one of the following, as applicable, or an equivalent approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region:

(1) For airplanes that have had the stabilator or stabilator trim tab repainted, altered, or repaired after leaving the factory, balance the stabilator in accordance with Piper Service Bulletin No. 229A, dated June 17, 1966, and Sketches A and B. Endorse the airplane log book to indicate whether the stabilator was balanced in accordance with (c) or (d) of Piper Service Bulletin No. 229A.

(2) For airplanes that have not had the stabilator or stabilator trim tab repainted, altered, or repainted after leaving the factory, add balance weights, Piper P/Ns 25780- 02 and 25780-03, to the stabilizer arm by means of AN 4-36A bolt, AN 960-416 washers and MS 20365-428C nut in accordance with Piper Service Bulletin No. 229A, dated June 17, 1966, and Sketch A. If plates, Piper P/N 23179-00, are presently installed, they must all be installed on the left side of the balance weight arm as shown in Piper Service Bulletin No. 229A, Sketch A. Ensure that stabilator controls have proper movement before further flight.

(c) After modification in accordance with either (b)(1) or (b)(2), the placard installed in accordance with (a) may be removed and replaced with operating limitation placard, Piper P/N SK-1835, which limits the Never Exceed Operating Airspeed to 230 mph, or an FAA-approved equivalent in accordance with Piper Service Bulletin No. 235, dated September 16, 1966, or an FAA-approved equivalent. However, this placard shall not be installed on airplanes that have a Never Exceed Operating Airspeed lower than 230 mph because of supplemental type certificate limitations, or FAA Form 337 approval limitations.

NOTE: The modification approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region and described in a memorandum dated July 20, 1966, is no longer applicable since the AD to which it was related is superseded by this directive.

(d) After modification in accordance with either (b)(1) or (b)(2), replace existing DMCR-approved Airplane Flight Manual Piper Report No. 1269, dated February 5, 1963, revised November 8, 1965, with DMCR-approved Airplane Flight Manual, Piper Report No. 1269, dated February 5, 1963, DOA-approved revision dated August 31, 1966.

NOTE: Existing Airplane Flight Manual supplements are still valid. Only the Basic Airplane Flight Manual should be replaced. For the requirements regarding the revising of the aircraft permanent maintenance record to reflect the 2.5 pounds added to the stabilator at a moment arm of 231.34 inches aft of datum during the modification specified in (b)(1) or (b)(2), see FAR 91.173.

This supersedes AD 66-12-02.

This directive effective November 25, 1966.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-427; AD 67-19-05

Airworthiness Directives; Piper Model PA-30 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 7, 1967.

Regulatory Information

67-19-05 PIPER: Amdt. 39-427, Part 39, Federal Register June 2, 1967. Applies to Type PA-30 airplanes, Serial Numbers 30-853, 30-902 Through 30-1470, Which Incorporate Factory Installed Oxygen System or Piper Oxygen Kits 756981 or 757100.

Compliance required within the next 25 hours' time in service after the effective date of this Airworthiness Directive, unless already accomplished. To prevent cracking of the oxygen cylinder mounting channels and prevent the rudder control cable from rubbing on the oxygen cylinder rear retaining strap, accomplish the following:

(a) On airplanes, Serial Numbers 30-853, 30-902 through 30-1454, modify the oxygen cylinder mounting installation in accordance with the Installation Instructions contained

in Piper Oxygen Cylinder Mounting Modification Kit No. 757094 or equivalent modification, approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

(b) On all airplanes modify the Oxygen Cylinder Rear Retaining Strap P/N 758109 and remove the Rubber Strip P/N 13945-85 as shown on the sketch contained in Piper Service Bulletin No. 246, dated March 21, 1967, or equivalent modification approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

(c) Upon request, with substantiating data submitted through an FAA maintenance inspector, compliance time may be increased by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

(Piper Service Bulletin No. 236, dated December 29, 1966, also pertains to the subject of paragraph (a)).

This amendment effective June 7, 1967.

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2991; AD 69-24-04

Airworthiness Directives; Piper Model PA-30 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 5, 1977.

Regulatory Information

69-24-04 PIPER: Amendment 39-878 as amended by amendment 39-896 is further amended by Amendment 39-2991. Applies to Piper PA-30 type airplanes certificated in all categories except aircraft incorporating Piper Kit No. 760 368.

Compliance required before further flight, unless already accomplished, as follows:

Change the existing Vmc placard to state the following:

"Minimum Single Engine Control Speed 90 mph CAS".

(Piper Service Bulletin 301A dated November 25, 1969 pertains to this subject.)

Amendment 39-878 was effective November 27, 1969.

Amendment 39-896 was effective December 26, 1969.

This Amendment 39-2991 is effective August 5, 1977.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1044; AD 70-15-17

Airworthiness Directives; Piper Model PA-30 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 4, 1970.

Regulatory Information

70-15-17 PIPER AIRCRAFT: Amdt. 39-1044. Applies to Piper PA-30 type airplanes, serial numbers 30-1 through 30-852 and 30-854 through 30-901, certificated in all categories.

Before further flight, attach the following operating limitation placard to the airspeed indicator in full view of the pilot:

"DO NOT EXCEED 230 MPH CAS."

This amendment is effective August 4, 1970 and was effective for all recipients of the airmail notice, dated 2 July 1970, which contained this amendment.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1095; AD 70-22-02

Airworthiness Directives; Airborne Manufacturing Co (formerly Airborne Mechanisms): Applies, Except As Noted, To All Model 1H7, 1H10, 1H16, and 1H26 Series Fuel Selector Valves

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective November 4, 1970.

Regulatory Information

70-22-02 AIRBORNE MANUFACTURING CO.: (formerly Airborne Mechanisms). Amdt. 39-1095. Applies, except as noted, to all model 1H7, 1H10, 1H16, and 1H26 series fuel

selector valves installed on, but not necessarily limited to:

Piper	PA-28-235
Piper	PA-32-260
Piper	PA-32-300
Piper	PA-32S-300
Piper	PA-30
Piper	PA-39

NOTE: 1H7 series valves identified with a number 4-R, 5-R, etc. and subsequent letter codes, (appearing on manufacturer's plate directly underneath the valve model number) and 1H26 series valves with a number 6-R, 7-R, etc. and subsequent letter codes, (appearing at same location noted above) are equipped with a production roll pin retaining sleeve and are not affected by this AD. Additionally, some earlier manufactured valves have slotted keyway control arms and shafts. These valves are also not affected by this AD. The alpha-numeric representation identifies the month and year a valve was manufactured. For example, 4-R indicates that the valve was manufactured during April, 1970.

Compliance required within the next 50 hours in service after the effective date of this AD, unless already accomplished.

To prevent the possibility of engine fuel starvation resulting from the inability to operate the fuel selector valve due to loss of the control arm roll pin, accomplish the following:

a. Inspect the fuel selector valve control arm and ascertain that the roll pin is in place.

b. Install pin retaining kit, Airborne P/N 2T18-1 (Piper P/N 760444 or 760438V), consisting of spring clip, Airborne P/N D1-61-1 (Piper P/N 757638) and sleeve, Airborne P/N A9-78-1 (Piper P/N 757639), as follows:

1. Lift quick drain shaft and insert slot of sleeve around shaft ensuring that groove in sleeve faces downward. Then press protruding portion of spring clip against hub and slide the entire assembly down over the hub.

NOTE: Do not attempt to retract the spring clip by prying with pointed tool.

2. Rotate sleeve and spring clip assembly around the hub until protruding portion of the spring clip snaps into the bore of the roll pin.

3. Paint 1/4" diameter red dot, using indelible ink, on fuel selector arm immediately adjacent to the newly installed retaining sleeve.

Upon submission of substantiating data through an FAA maintenance inspector by an owner or operator, the Chief, Engineering & Manufacturing Branch, FAA, Eastern Region may adjust the compliance time specified in this Airworthiness Directive.

(Piper Aircraft Corporation Service Bulletin Nos. 311 and 314 both dated 5 June 1970 pertain to this same subject.)

This amendment is effective November 4, 1970.

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Airworthiness Directive

Federal Register Information

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1344; AD 70-22-05

Airworthiness Directives; Piper PA 23-250, PA-30, PA-31 and PA-31-300 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective November 30, 1971.

Regulatory Information

70-22-05 PIPER: Amdt. 39-1099 as amended by Amendment 39-1344. Applies to Piper PA 23-250 type Aircraft S/N 27-3837 and 27-3944 to 27-4442 incl.; PA-30, S/Nos. 30-1717, 30-1746 to 30-2000, Incl.; PA-31 and PA-31-300, S/Nos. 31-228, 31-230, 31-231, 31-233 to 31- 588. Certificated for Instrument Flight.

Compliance required within the next 100 hours in service after the effective date of this AD, unless already accomplished.

To prevent the hazards associated with the possibility of a complete loss of electrical power while operating under Instrument Flight Rules. Accomplish the following:

(a) Modify the aircraft electrical system in accordance with Piper Service Bulletin No. 306 dated January 9, 1970 or equivalent method approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

Upon request with substantiating data submitted through an FAA maintenance inspector, the compliance time specified in this AD may be increased by the Chief, Engineering & Manufacturing Branch, FAA Eastern Region.

Amendment 39-1099 was effective November 4, 1970.

This Amendment 39-1344 is effective November 30, 1971.

Airworthiness Directive

Federal Register Information

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1226; AD 71-12-05

Airworthiness Directives; Piper Models PA-23-250, PA-E23-250, PA-24-260, PA-30, PA-31, PA-31-300, PA-31P, and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 16, 1971.

Regulatory Information

71-12-05 PIPER AIRCRAFT: Amdt. 39-1226. Applies to Models PA-23-250 (Six Place) and PA-E23-250 (Six Place) Serial Numbers: 27-3837, 27-3944 through 27-4467, 27-4469 through 27-4527, 27-4529 through 27-4559, 27-4561 through 27-4567, 27-4569 through 27-4575, 27-4577 through 27-4579, 27-4581, 27-4582, 27-4584 through 27-4592, 27-4594, 27- 4596 through 27-4604 and 27-4606. Model PA-24-260, Serial Nos. 24-4783, 24-4804 through 24-4953, 24-4955 through 24-4959, 24-4962 and 24-4964. Model PA-30, Serial Nos. 30-1717, 30-1745 through 30-2000. Model PA-31 and 31-300, Serial Nos.; 31-2 through 31-694, 31-696 and 31-697. Model PA-31P; Serial Nos. 31P-1 through 31P-24, 31P-26 through 31P-29, 31P-31 and 31P-33. Model PA-39; Serial Nos. 39-1 through 39-83 and any other of the above model A/C equipped with Scott

Electric Trim Switch P/N 800452-01.

Compliance required within the next 100 hours' time in service after the effective date of this AD, unless already accomplished.

(a) Modify the Electric Trim Switch P/N 800452-01 in accordance with Piper Kit No. 760505 as referenced in Piper Service Bulletin No. 331, dated 5 February 1971 or equivalent method approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

(b) Upon request with substantiating data submitted through an FAA maintenance inspector, the compliance time specified in this AD may be increased by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

This amendment is effective June 16, 1971.

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2588; AD 74-13-03

Airworthiness Directives; Piper Models PA-23-235, PA-23-250, PA-24, PA-24-250. PA-24-260, PA-24-400, PA-30 and PA-39 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective April 30, 1976.

Regulatory Information

74-13-03 PIPER: Amendment 39-1872 as amended by Amendment 39-2588. Applies to Models PA-23-235 and PA-23-250 aircraft Serial Nos. 27-1 through 27-4654, Models PA-24, PA-24-250 and PA-24-260 aircraft Serials Nos. 24-1 through 24-5047, Model PA-24-400 aircraft Serial Nos. 26-2 through 26-148, Model PA-30 aircraft Serial Nos. 30-1 through 30-2000 Model PA-39, Serial Numbers 39-1 through 39-155 certificated in all categories. Compliance required as indicated unless previously accomplished. To prevent possible hazards in flight associated with the corrosion of the stabilator attachment bolts, accomplish the following:

1. Within the next 100 hours in service, unless previously accomplished, and at

intervals not to exceed three years or five hundred hours in service from the last inspection, whichever occurs first, remove the four (4) stabilator attachment bolts and inspect for corrosion.

2. If corrosion is found, before further flight, replace the bolt, nut and washer with unused parts of the same part numbers or equivalent. The bolt can be replaced with an equivalent corrosion resistant AN bolt.

3. If a corrosion-resistant AN bolt or equivalent is used, compliance with the requirements of the AD may be discontinued.

4. Equivalent parts must be FAA approved.

5. Upon submission of substantiating data by an owner or operator through an FAA Maintenance Inspector, the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region, may adjust the repetitive inspection interval specified in this AD.

(Piper Service Letters No. 667A and 772 refer to this subject).

Amendment 39-1872 was effective June 18, 1974.

This amendment 39-2588 is effective April 30, 1976.

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-1912; AD 74-16-08

Airworthiness Directives; Piper Models PA-30 and PA-39 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective August 9, 1974.

Regulatory Information

74-16-08 PIPER: Amendment 39-1912. Applies to Model PA-30 and Model PA-39 aircraft certificated in all categories except aircraft incorporating Piper Kit Part Number 760 783. Compliance required as indicated.

To prevent possible hazards in flight associated with cracking of the aft bulkhead assembly, fuselage station 258, accomplish the following:

1. Within the next 50 hours in service from the effective date of this AD, unless already accomplished within the past 50 hours in service, and at intervals not to exceed 100 hours in service from the last inspection, inspect in accordance with paragraph 2.

2. Remove the tail cone and visually inspect, with five times power minimum magnification, the aft bulkhead assembly, fuselage station 258, Part Number 22893-00 on Model PA-30 and Model PA-39, Serial Nos. 39-1 through 39-83 or Part Number 22893-06 on Model PA-39, Serial Nos. 39-84 and up, for cracks in the area of the aft fin attachment brackets.

3. If cracks are detected, repair in accordance with Fin Attachment Bracket Installation Kit, Piper Part Number 760 783 or equivalent prior to further flight, except that the airplane may be flown in accordance with FAR 21.197 to a base where a repair can be made.

4. Upon incorporation of the Fin Attachment Bracket Installation Kit, Piper Part Number 760 783 or equivalent, compliance with the requirements of this AD may be dispensed with.

5. Equivalent repairs must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

6. Upon submission of substantiating data by an owner or operator through an FAA Maintenance Inspector, the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region, may adjust the repetitive inspection interval specified in this AD.

(Piper Service Letter No. 679 refers to this subject.)

This amendment is effective August 9, 1974.

Airworthiness Directive

Federal Register Information

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2624; AD 75-27-08

Airworthiness Directives; Piper Models PA-24, PA-24-250, PA-24-260, PA-24-400, PA-30, and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 3, 1976.

Regulatory Information

75-27-08 PIPER: Amendment 39-2481 as amended by Amendment 39-2624. Applies to Models PA-24, PA-24-250 and PA-24-260, Serial Nos. 24-1 through 24-5047; PA-24-400, Serial Nos. 26-2 through 26-148; PA-30, Serial Nos. 30-1 through 30-2000; PA-39, Serial Numbers 39- 1 through 39-155, certificated in all categories.

Compliance required as indicated.

To prevent possible hazards in flight associated with damaged rivets which attach the stabilator torque tube bearing support fittings P/Ns 20420-00, -01 and 20419-00, -01 to the aft fuselage, accomplish the following;

(a) Within the next 50 hours in service from the effective date of this AD unless previously accomplished, inspect in accordance with paragraph (b).

(b) Inspect each of the four stabilator torque tube bearing block attachment fittings that do not have Piper Kit 760835 or equivalent incorporated, as follows:

(1) Remove the right rear aft fuselage access door.

(2) Using a light and mirror (with extension), view through the access opening to determine if any of the horizontally positioned rivets through the skin align with any of the vertically positioned rivets through the support fittings.

(c) If more than one rivet is so aligned and there is a penetration of more than one of five forward vertical rivets, Piper Kit 760835 or equivalent shall be installed in the affected fitting before further flight, except that the airplane may be flown in accordance with FAR 21-197 to a base where a repair can be made.

(d) Equivalent repairs must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region. (Piper Service Bulletin No. 464A, refers to this subject.)

Amendment 39-2481 was effective December 31, 1975.

This amendment 39-2624 is effective June 3, 1976.

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2715; AD 76-18-05

Airworthiness Directives; Piper Models PA-30 and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective September 10, 1976.

Regulatory Information

76-18-05 PIPER: Amendment 39-2715. Applies to Models PA-30, Serial Nos. 30-1 through 30-2000, and PA-39, Serial Nos. 39-1 through 39-155 certificated in all categories.

To prevent possible hazards in flight associated with cracks in the radius of the bend relief holes of the forward fin attachment channel assembly accomplish the following within the next 50 hours in service from the effective date of this AD unless previously accomplished.

a. Visually inspect the forward fin attachment channel P/N 22903-00 around the radius of the bend relief cutouts for cracks using a magnifying glass of at least five power or an

approved equivalent inspection.

b. Cracked parts must be replaced with a part of the same number or equivalent that has been inspected in accordance with this AD and found acceptable prior to further flight, except that the Airplane may be flown in accordance with FAR 21.197 to a base where a repair can be made.

c. Equivalent inspections and parts must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

(Piper Service Letter No. 777 refers to this subject.)

This amendment is effective September 10, 1976.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2871; AD 77-08-01

Airworthiness Directives; Piper Models PA-24, PA-24-250, PA-24-260, PA-24-400, PA-30, and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective April 18, 1977.

Regulatory Information

77-08-01 PIPER: Amendment 39-2871. Applies to Models PA-24, PA-24-250 and PA-24-260, Serial Nos. 24-1 through 24-5047; Model PA-24-400, Serial Nos. 26-2 through 26-148; Model PA-30, Serial Nos. 30-2 through 30-2000; Model PA-39, Serial Nos. 39-1 through 39- 155; certificated in all categories except aircraft incorporating Piper Kit number 760 914.

To prevent possible hazards in flight associated with aileron spar cracks, accomplish the following:

(a) Within the next 100 hours in service from the effective date of this AD or upon the

attainment of 1000 total hours in service, whichever is later, and at intervals not to exceed 100 hours in service from the last inspection, inspect and alter as necessary in accordance with the instructions sections of Piper Service Letter No. 787 dated December 1, 1976, or equivalent.

(b) Upon the incorporation of Aileron Outboard Hinge Bracket Replacement, Piper Kit No. 760 914 or equivalent, compliance with the requirements of this AD may be dispensed with.

(c) Equivalent inspections and alterations must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

(d) Upon submission of substantiating data by an owner or operator through an FAA Maintenance Inspector, the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region may adjust the inspection intervals specified in this AD.

This amendment becomes effective April 18, 1977.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-2892; AD 77-09-10

Airworthiness Directives; Piper Models PA-23-250, PA-24-260, PA-30, PA-31, PA-31-300, PA-31-350, PA-31P, and PA-39 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective May 12, 1977.

Regulatory Information

77-09-10 PIPER AIRCRAFT CORP: Amendment 39-2892. Applies to models:

PA-23-250 (6 place)	S/Nos. 27-3837, 27-3944 to 27-4796 inclusive
PA-24-260	S/Nos. 24-4783, 24-4804 to 24-5047 inclusive
PA-30	S/Nos. 30-1717, 30-1745 to 30-2000 inclusive
PA-31 and 31-300	S/Nos. 31-2 to 31-797 inclusive

PA-31-350	S/Nos. 31-5001 to 31-5004 inclusive
PA-31P	S/Nos. 31P-1 to 31P-109 inclusive
PA-39	S/Nos. 39-1 to 39-155 inclusive

Compliance required within the next 100 hours in service after the effective date of this AD, unless already accomplished.

(a) Modify the electric trim switch in accordance with instruction paragraph of Piper Service Bulletin No. 527, dated November 5, 1976, or equivalent method approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

(b) Upon request with substantiating data submitted through an FAA Maintenance Inspector, the compliance time specified in this AD may be adjusted by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

This amendment becomes effective May 12, 1977.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3093; AD 77-13-21

Airworthiness Directives; Piper Models PA-24, PA-24-250, PA-24-260, PA- 24-400, PA-30 and PA-39 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective December 16, 1977.

Regulatory Information

77-13-21 PIPER AIRCRAFT CORPORATION: Amendment 39-2946 as amended by Amendment 39-3093. Applies to airplane models PA-24, PA-24-250, and PA-24-260; model PA- 24-400, except S/N 1; and models PA-30 and PA-39, certificated in all categories. For aircraft having 1000 hours or more in service on the effective date of this AD, compliance is required within the next 100 hours in service, and for aircraft having less than 1000 hours in service, compliance is required prior to 1100 hours in service, unless already accomplished in either case.

To prevent collapse of the landing gear after manual extension;

(a) Accomplish the inspection described on page 3 of Piper Aircraft Corporation Service Letter No. 782A, dated March 21, 1977, and replace components exceeding the specified wear limits, or an equivalent inspection and replacement procedure approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

(b) Inspect the main landing gear bungee cords for frayed protective covering, breaks, soft areas, and replace cords exhibiting these conditions. In addition, replace cords every 500 hours in service, or every three years, whichever occurs first.

(c) Repeat paragraph (a) at each 1000 hours in service after the prior inspection, and repeat paragraph (b) at each 500 hours in service after the prior inspection, or within one year after the prior inspection, whichever occurs first.

(d) Airplanes may be flown in accordance with FAR 21.197 to a base where repairs can be performed.

The Chief, Engineering and Manufacturing Branch may adjust the inspection interval upon submission of substantiating data submitted through an FAA maintenance inspector.

Amendment 39-2946 became effective July 6, 1977.

This amendment 39-3093 is effective December 16, 1977.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3235; AD 78-12-07

Airworthiness Directives; Piper Models PA-30 and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 19, 1978.

Regulatory Information

78-12-07 PIPER: Amendment 39-3235. Applies to Piper Aircraft PA-30 and PA-39 with Serial Numbers 30-1 through 30-2000 and 39-1 through 39-155 which have had a right fuel selector valve P/N 492137 (Airborne P/N 1H7-8) changed since April, 1977, with a valve containing the designation "4C" in the valve serial number.

Compliance required before further flight unless already accomplished.

1. Replace any right fuel selector valve, Piper P/N 492137 (Airborne P/N 1H7-8) containing the designation "4C" in the valve serial number with a serviceable valve without the "4C" designation.

2. The replacement fuel selector valve shall be installed and adjusted in accordance with PA-30/39 Service Manual.

(Piper Service Bulletin No. 597 dated April 19, 1978, pertains to this subject.)

This amendment is effective June 19, 1978.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3493; AD 79-12-08

Airworthiness Directives; Piper PA-24-400 Series, PA-30, and PA-39 Aircraft

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 19, 1979.

Regulatory Information

79-12-08 PIPER: Amendment 39-3493. Applies to series PA-24-400 S/N 26-2 through 26-148; PA-30 S/N 30-2 through 30-2000; and PA-39 S/N 39-1 through 39-155 aircraft.

PART A

This part applies to all aircraft listed above. Compliance required within 50 hours of operation after the effective date of this AD and at each 50 hours of operation thereafter.

To prevent fuel mismanagement from inter-port leakage with the fuel selector valve causing fuel to transfer from one tank to another, accomplish checks in accordance with

the Instructions paragraph in Piper Service Letter No. 851, Part A or an approved equivalent. Item 3 is to be repeated only twice. If drainage still exceeds one half (1/2) fluid ounce of fuel then comply with Item 5. Item 5 is maintenance and must be performed by a certified mechanic.

PART B

This part applies to the cited Models PA-30 and PA-39 aircraft.

If the airplane has been exposed to below freezing temperatures, compliance is required prior to the first flight of the day and after each refueling operation.

To eliminate water contamination of the aircraft fuel supply, accomplish a check in accordance with the Instructions paragraph of Piper Service Letter 851, Part B, Item 2a and 2b or an approved equivalent check.

PART C

This part applies to the cited Model PA-24-400 aircraft.

If the airplane has been exposed to below freezing temperatures, compliance is required prior to the first flight of the day and after each refueling operation.

To eliminate water contamination of the aircraft fuel supply, accomplish a check in accordance with the Instructions paragraph in Piper Service Letter No. 851, Part C, Item 2a or an approved equivalent check.

Upon submission of substantiating data through an FAA maintenance inspector, the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region, may adjust the repetitive intervals. The checks required by this AD may be performed by the pilot.

Equivalent checks, inspections, and maintenance must be approved by Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

This amendment is effective June 19, 1979.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3579; AD 79-20-10

Airworthiness Directives; Piper Model PA-24, PA-24-250, PA-24-260, PA-24-400, PA-30, and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective October 4, 1979.

Regulatory Information

79-20-10 PIPER: Amendment 39-3579. Applies to the following Piper Model airplanes:

PA-24	Serial Nos. 24-1 and up
PA-24-250	Serial Nos. 24-1 and up
PA-24-260	Serial Nos. 24-3642, 24-4000 and up
PA-24-400	Serial Nos. 26-1 and up

PA-30	Serial Nos. 30-1 and up
PA-39	Serial Nos. 39-1 and up,

certificated in all categories except airplanes incorporating Piper Kit Part No. 763 893:

(a) Within the next 50 hours in service, after the effective date of this AD, unless already accomplished within the past 50 hours in service and at intervals not to exceed 100 hours in service thereafter, inspect in accordance with paragraph "Instructions" in Service Letter No. 850 dated April 18, 1979, Parts 1, 2, 3, 4a, b and c or equivalent inspection.

(b) Upon incorporation of Piper Kit No. 763 893 or equivalent, compliance with this AD may be terminated.

(c) Equivalent parts and inspections and alterations must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region.

(d) Upon submittal of substantiating data by an owner or operator through an FAA Maintenance Inspector, the Chief, Engineering and Manufacturing Branch, FAA, Eastern Region, may adjust the inspection intervals specified in this AD.

This supersedes AD 74-10-03.

This amendment is effective October 4, 1979.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-4603; AD 82-23-01 R1

Airworthiness Directives; Piper Model PA-24, PA-24-250, PA-24-260, PA-30 and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective April 7, 1983.

Regulatory Information

82-23-01 R1 PIPER: Amendment 39-4483 as amended by Amendment 39-4603. Applies to Piper Models PA-24, PA-24-250, and PA-24-260 airplanes, modified per Robertson Supplemental Type Certificate (STC) SA2495WE, and PA-30 and PA-39 airplanes, modified per Robertson STC SA2312WE, certificated in any category.

COMPLIANCE: Required within 25 hours time-in-service after the effective date of this AD unless already accomplished.

To prevent possible loss of airplane control due to an asymmetrical flap extension or retraction, accomplish the following:

(a) Install a temporary placard on the panel near the flap actuator which reads:

"DO NOT EXTEND FLAPS BEYOND 15 DEGREES (TAKEOFF POSITION)"

and operate the airplane in accordance with this limitation.

(b) Insert a copy of Figure 1 of this AD dated March 3, 1983, or FAA approved equivalent, in the Airplane Flight Manual.

(c) The installation of the placard and insertion of Figure 1 of this AD in the AFM may be accomplished by the owner/operator of the airplane. This person shall make an appropriate entry in the airplane's maintenance record indicating compliance with this AD.

(d) The temporary placard required by paragraph (a) and Figure 1 dated March 3, 1983, inserted in the Airplane Flight Manual as required by paragraph (b) may be removed when a positive flap retraction system is installed in accordance with Robertson Aircraft Corporation Service Bulletin 19 dated October 22, 1982.

(e) An equivalent method of compliance with this AD may be used if approved by the Manager, Seattle Area Aircraft Certification Office, FAA, Northwest Mountain Region, 9010 East Marginal Way South, Seattle, Washington 98108.

Amendment 39-4483 became effective on November 8, 1982.

This Amendment 39-4603 becomes effective April 7, 1983.

Figure 1, AD 82-23-01
(March 3, 1983)
FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT
TO THE
PIPER PA-24, PA-24-250, PA-24-260
AND
PIPER PA-30, PA-39
AIRPLANE FLIGHT MANUALS

This supplement applies to the above aircraft when modified with the Robertson STOL modification under STC SA2495WE or SA2312WE but have not been modified with the Robertson positive flap retraction system described in Robertson Service Bulletin 19 dated October 22, 1982. This document must be carried in the basic manual of the modified aircraft.

The information in this document supersedes the basic manual only where covered in the items contained herein. For Limitations, Procedures and Performance not contained in this Supplement, consult the basic manual.

I. LIMITATIONS

Maximum flap extension is limited to 15 degrees under all flight conditions for electrically-operated flaps or second notch (approximately 18 degrees) for manually-operated flaps.

II. PROCEDURES. EMERGENCY

Flap operation: If the airplane begins a pronounced roll in either direction upon flap extension or retraction, immediately cease flap operation and reverse the action.

That is, if flaps are being retracted and pronounced roll begins, cease retracting the flaps and initiate extension to previous setting or until the roll stops. If flaps are being extended and a pronounced roll begins, cease extending flaps and return flaps to the retracted position. Leave the flaps in the last position found to permit aileron neutral flight and return to a suitable landing field. If flaps are retracted, consider the need for additional landing field length. If flaps are extended, limit airspeed to maximum flaps extended speed (125 m.p.h. - 180K).

NOTE

The restriction against continuous flap retraction is necessary because of the possibility of asymmetric flaps occurring under certain conditions. With one flap extended to 15 degrees, or second notch (approximately 18 degrees) for manually-operated flaps, the airplane is controllable by coordinated use of ailerons and rudder. The EMERGENCY procedures listed above should be followed if pronounced roll is encountered when flaps are moved. This will restore balanced lift to each wing, permitting normal aileron authority for maneuvering the airplane.

III. PERFORMANCE

No change.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-4649; AD 83-10-01

Airworthiness Directives; Piper Model PA-24-400, PA-30, and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective June 15, 1983.

Regulatory Information

83-10-01 PIPER: Amendment 39-4649. Applies to Models PA-24-400 (S/Ns 26-2 through 26-148); PA-30 (S/Ns 30-2 through 30-2000); and PA-39 (S/Ns 39-1 through 39-155) airplanes certificated in any category.

Compliance: Required as indicated, unless already accomplished.

To prevent retention of water contamination and deterioration of the fuel system, accomplish the following:

(A) Within the next 50 hours time-in-service after the effective date of this AD and at intervals not exceeding 50 hours time-in-service thereafter, clean and inspect the fuel

selector valve strainer filter on all airplanes listed in the applicability statement for water accumulation, contamination, and corrosion of the fuel strainer filter components in accordance with the following procedures:

(1) Gain access to the fuel strainer installation by removing the floor panel in the center section of the fuselage (PA-30, PA-39) or between the two front seats (PA-24-400).

(2) Remove, drain, and clean fuel strainer housing and filter discs in accordance with the following procedures:

a. Separate filter housing from selector valve assembly by removing attaching screws.

b. Remove the filter disc assembly from stem by compressing filter retainer spring and removing retainer washer.

c. In the event that contamination is found, flush fuel tanks and selector valves and clean filter assemblies using the following procedures:

(i) Plug open ends of filter disc to prevent disc dirt from entering.

(ii) Wash the disc with suitable cleaner or solvent. Heavy dirt, lint, or dust deposits may be removed from disc with a soft bristle paint brush.

(iii) Drain or blow off cleaning fluid and remove plugs.

(iv) Inspect bowl gasket and disc filter for damage and replace if necessary.

(B) Within the next 100 hours time-in-service after the effective date of this AD, replace the existing fuel selector strainer filter housing on the Model PA-30 (S/Ns 30-2 through 30-1744) airplanes with Piper P/N 757187 conical-shaped stainless steel strainer housing in accordance with Piper Service Letter No. 589, dated August 18, 1971.

NOTE: This may have been previously accomplished per Piper Service Spares Letter No. SP-289 or Service Letter No. 589.

(C) Within the next 50 hours time-in-service after the effective date of this AD, fabricate and install a permanent placard as described below having letters with 1/8 inch minimum height on the inside of the hinged access door or adjacent location clearly visible to the pilot during his preflight check.

(1) On Model PA-24-400 airplanes the placard must read as follows:

"THE FUEL SYSTEM SHALL BE DRAINED DAILY PRIOR TO FIRST
FLIGHT AND AFTER REFUELING TO AVOID THE ACCUMULATION OF
WATER OR SEDIMENT USING THE FOLLOWING PROCEDURES:

a. Move the quick drain valve handle to full aft position to open the strainer quick drain for a few seconds with the fuel cell selector on each cell, including the auxiliary tanks. Allow enough fuel to flow to clear lines as well as the strainer. Positive fuel flow shut-off can be observed through the clear plastic tube.

b. Ensure that the drain valve positively closes.

c. If it is not possible to observe fuel draining through the clear plastic tube because of a loss in its transparency, replace with a new tube.

CAUTION: When draining any amount of fuel, care should be taken to ensure that no fire hazard exists before starting engine."

(2) On Model PA-30 and PA-39 airplanes, the placard must read as follows:

"THE FUEL SYSTEM SHALL BE DRAINED DAILY PRIOR TO FIRST FLIGHT AND AFTER REFUELING TO AVOID THE ACCUMULATION OF WATER OR SEDIMENT USING THE FOLLOWING PROCEDURES:

a. Pull up on the knob located in the center of the selector valves to open the strainer quick drain for a few seconds with the fuel tank selector on the main tank, then change the tank selector to each auxiliary tank and repeat the process. Allow enough fuel to flow to clear the lines as well as the strainer. Positive fuel flow shut-off can be observed through the clear plastic tube which carries the fuel overboard.

b. Ensure that the drain valve positively closes.

c. If it is not possible to observe fuel draining through the clear plastic tube because of a loss in its transparency, replace with a new tube.

CAUTION: When draining any amount of fuel, care should be taken to ensure that no fire hazard exists before starting engine."

(D) If insufficient space is available to contain placards with the above information, the following placard may be substituted.

"BEFORE THE FIRST FLIGHT OF EACH DAY AND AFTER REFUELING DRAIN THE FUEL SYSTEM IN ACCORDANCE WITH PIPER SERVICE LETTER 851 PART B, ITEM 2.a. and 2.b.

(E) The fabrication and installation of the placards required by paragraph (C) or (D) of this AD may be accomplished by the owner/operator of the airplane who must make an entry in the Airplane Maintenance Record indicating compliance with paragraph (C) or (D) of the AD.

(F) The intervals between repetitive inspections required by this AD may be adjusted up to 10 hours time-in-service to allow them to be accomplished concurrent with other scheduled maintenance on the airplane.

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

(H) An equivalent method of compliance with this AD may be used when approved by the Manager, New York Aircraft Certification Office, Federal Aviation Administration,

ANE-170, 181 South Franklin Avenue, Room 202, Valley Stream, New York 11581.

This amendment becomes effective on June 15, 1983.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-4730; AD 83-19-03

Airworthiness Directives; Piper Model PA-24-180/250/260, PA-24-400, PA-30 and PA-39 Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective September 30, 1983.

Regulatory Information

83-19-03 PIPER: Amendment 39-4730. Applies to Models PA-24-180/250/260 (S/N 24-1 and up); PA-24-400, (S/N 26-2 and up); PA-30 (S/N 30-2 thru 30-2000); and PA-39 (S/N 39-1 thru 39-155) airplanes certificated in any category.

Compliance: Required as indicated, unless already accomplished.

To prevent wing lower main spar cap damage and possible cracks in this component where it enters the fuselage at the lower wing root fairing, accomplish the following:

a) Within the next 100 hours time-in-service after the effective date of this AD, inspect

the lower spar cap for chafing damage and cracks in accordance with the Instructions Section of Piper Service Bulletin 751 dated May 24, 1983.

b) Prior to further flight, polish out any chafing damage or replace parts which are cracked or that have chafing damage which cannot be polished out within the depth limits specified in the Instructions Section of Piper Service Bulletin 751 dated May 24, 1983, with a serviceable part.

c) Prior to reinstallation, trim the lower portion of the seal plates in accordance with the Instructions Section of Piper Service Bulletin 751 dated May 24, 1983.

d) Aircraft may be flown in accordance with Federal Aviation Regulation 21.197 to a location where this AD can be accomplished.

e) An equivalent method of compliance with this AD may be used, if approved, by the Manager, New York Aircraft Certification Office, FAA, Room 202, 181 South Franklin Avenue, Valley Stream, New York 11581.

This amendment becomes effective on September 30, 1983.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [62 FR 59280 NO. 212 11/03/97]

Docket No. 84-CE-27-AD; Amendment 39-10189; AD 85-02-05 R1

RIN 2120-AA64

Airworthiness Directives; The New Piper Aircraft, Inc. PA-20, PA-22, PA-23, PA-24, PA-25, PA-30, PA-31P, PA-36, PA-39, and PA-44 Series Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule; correction.

SUMMARY: This document clarifies information in Airworthiness Directive (AD) 85-02-05, which applies to all The New Piper Aircraft, Inc. (Piper) PA-20, PA-22, PA-23, PA-24, PA-25, PA-30, PA-31P, PA-36, PA-39, and PA-44 series airplanes. AD 85-02-05 currently requires installing on the pilot's instrument panel a Piper part number (P/N) 81090-02 placard, which provides information for operation of the parking brake. Piper has superseded that placard with a P/N 683-107 placard, and operators in need of a new placard can only obtain the P/N 683-107 placard. In this scenario, the owners/operators of the affected airplanes could not comply with AD 85-02-05 as currently written. The P/N 683-107 placard contains the same wording as the P/N 81090-02 placard. The actions specified in that AD are intended to prevent airplane controllability problems while involved in ground operation because of improper brake operations. This document maintains the placard requirement of AD 85-02-05, and adds the installation of the P/N 683-107 placard as an option of compliance.

DATES: Effective November 21, 1997.

FOR FURTHER INFORMATION CONTACT: William Herderich, Aerospace Engineer, Atlanta Certification Office, FAA, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone (770) 703-6084; facsimile (770) 703-6097.

SUPPLEMENTARY INFORMATION:

Discussion

AD 85-02-05, Amendment 39-4984, currently requires the following on Piper PA-20, PA-22, PA-23, PA-24, PA-25, PA-30, PA-31P, PA-36, PA-39, and PA-44 series airplanes: installing on the pilot's instrument panel a Piper part number (P/N) 81090-02 placard, which provides information for operation of the parking brake. The actions required by AD 85-02-05 are intended to prevent airplane controllability problems while involved in ground operation because of improper brake operations.

Need for the Correction

Piper has superseded the P/N 81090-02 placard with a P/N 683-107 placard, and owners/operators in need of a new placard can only obtain the P/N 683-107 placard. In this scenario, the owners/operators of the affected airplanes could not comply with AD 85-02-05 as currently written. The P/N 683-107 placard contains the same wording as the P/N 81090-02 placard.

Correction of Publication

This document maintains the placard requirement of AD 85-02-05, adds the installation of the Piper P/N 683-107 placard as an option of compliance, adds a paragraph that allows the pilot to install the placard, adds the standard alternative method of compliance paragraph, and adds the AD as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13).

Since this action only adds the Piper P/N 683-107 placard as an option of compliance, it has no adverse economic impact and imposes no additional burden on any person than would have been necessary to comply with AD 85-02-05. Therefore, the FAA has determined that prior notice and opportunity for public comment are unnecessary.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Correction

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.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Airworthiness Directive (AD) 85-02-05, Amendment 39-4984, and by adding a new AD to read as follows:

Regulatory Information

85-02-05 R1 THE NEW PIPER AIRCRAFT, INC.: Amendment 39-10189; Docket No. 84-CE-27-AD. Revises AD 85-02-05, Amendment 39-4984.

Applicability: The following model and serial number airplanes, certificated in any category:

Models	Serial Numbers
PA-20, PA-20S, PA-20-115, PA-20S-115, PA-20-135, and PA-20S-135	20-1 through 20-1121
PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22-160, and PA-22S-160	22-1 through 22-9848
PA-23 and PA-23-160	23-1 through 23-2046
PA-23-235, PA-23-250, and PA-E23-250	27-1 through 27-8154030
PA-24, PA-24-250, and PA-24-260	24-1 through 24-5034
PA-24-400	26-1 through 26-148
PA-25, PA-25-235, and PA-25-260	25-1 through 25-8156024
PA-30	30-1 through 30-2000
PA-31P	31P-1 through 31P-7730012
PA-36-285, PA-36-300, and PA-36-375	36-7360001 through 36-8302025
PA-39	39-1 through 39-162
PA-44-180	44-7995001 through 44-8195026
PA-44-180T	44-8107001 through 44-8207020

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

Compliance: Required within 100 hours time-in-service after March 1, 1985 (the effective date of AD 85-02-05, Amendment 39-4984) or prior to the next flight after the effective date of this AD, whichever occurs later, unless already accomplished.

To prevent airplane controllability problems while involved in ground operation because of improper brake operations, accomplish the following:

(a) Install one of the following in a central location on the pilot's instrument panel in full view of the pilot.
(1) A Piper part number 81090-02 placard; or

(2) A Piper part number 683-107 placard.

NOTE 2: The above referenced placards both contain the following language:

"WARNING
NO BRAKING WILL OCCUR IF AIRCRAFT
BRAKES ARE APPLIED WHILE PARKING
BRAKE HANDLE IS PULLED AND HELD"

(b) 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.

(c) Installing the placard required by paragraph (a) of this AD may be performed by the owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), and must be entered into the aircraft records showing compliance with this AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Atlanta Aircraft Certification Office (ACO), One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349.

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

(2) Alternative methods of compliance approved in accordance with AD 85-02-05 (revised by this action) are considered approved as alternative methods of compliance with this AD.

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

(e) All persons affected by this directive may examine information pertaining to this document at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(f) This amendment becomes effective on November 21, 1997.

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [59 FR 32874 NO. 122 06/27/94]

Docket No. 93-CE-60-AD; Amendment 39-8951; AD 94-13-10

Airworthiness Directives: Piper Aircraft Corporation PA-24, PA-30, and PA-39 Airplanes
PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes Airworthiness Directive (AD) 74-13-01, which currently requires inspecting (one-time) the stabilator torque tube bearing support fittings for looseness on certain Piper Aircraft Corporation (Piper) PA24, PA30, and PA39 series airplanes, and, if looseness is found, incorporating Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit). This action retains the initial inspection of the stabilator torque tube bearing support fittings, and makes these inspections repetitive unless the above referenced service kit is incorporated. Incidents of looseness of the stabilator torque tube bearing support fittings on several of the affected airplanes in compliance with the current AD prompted this action. The actions specified by this AD are intended to prevent loss of pitch control because of looseness of the stabilator torque tube bearing support fittings, which could result in loss of control of the airplane.

DATES: Effective August 12, 1994.

ADDRESSES: Service information that applies to this AD may be obtained from the Piper Aircraft Corporation, Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Assistant Chief Counsel, 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: Christina Marsh, Aerospace Engineer,

FAA, Atlanta Aircraft Certification Office, 1669 Phoenix Parkway, Suite 210C, Atlanta, Georgia 30349; telephone (404) 991-2910; facsimile (404) 991-3606.

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 certain PA24, PA30, and PA39 series airplanes was published in the **Federal Register** on February 1, 1994 (59 FR 4605). The action proposed to supersede AD 74-13-01, Amendment 39-1870, with a new AD that would retain the initial inspection of the stabilator torque tube bearing support fittings, and make these inspections repetitive unless Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit) is incorporated.

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, 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 nor add any additional burden upon the public than was already proposed.

The FAA estimates that 4,409 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 1 workhour per airplane to accomplish the required action, and that the average labor rate is approximately $55 an hour. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be $242,495. This figure does not account for any repetitive inspections that would be required by this AD. However, incorporating Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit) on all four stabilator torque tube bearing support fittings eliminates the need for the repetitive inspection requirement of this AD. In addition, this kit may have been incorporated through compliance with AD 75-27-08, Amendment 39-2624. This AD requires inspecting the rivets of the stabilator torque tube bearing support fittings, and incorporating the referenced kit if any rivets are found misaligned. The cost figure presented above is based on the assumption that none of the owners/operators affected by this AD have incorporated Piper Part No. 760 835. The FAA anticipates that numerous owners/operators have incorporated this kit, thereby reducing the cost impact of the required action.

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, 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. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

Section 39.13 - [AMENDED]
2. Section 39.13 is amended by removing AD 74-13-01, Amendment 39-1870, and by adding a new airworthiness directive to read as follows:

Regulatory Information

94-13-10 PIPER AIRCRAFT CORPORATION: Amendment 39-8951; Docket No. 93-CE- 60-AD; Supersedes AD 74-13-01, Amendment 39-1870.

Applicability: The following model and serial number airplanes, certificated in any category, that have not incorporated Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit) on all four stabilator torque tube bearing support fittings:

Model	Serial Numbers
PA24-180, PA24-250 and PA24-260	24-1 through 24-5047
PA24-400	26-2 through 26-148
PA30	30-1 through 30-2000
PA39	39-1 through 39-155

NOTE 1: Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit), may have been incorporated through compliance with AD 75-27-08, Amendment 39-2624. This AD requires inspecting the rivets of the stabilator torque tube bearing support fittings, and incorporating the referenced kit if any rivets are found misaligned. Airplanes incorporating this kit on all four stabilator torque tube bearing support fittings are not affected by this AD.

Compliance: Required within the next 100 hour time-in-service (TIS) after the effective date of this AD, unless already accomplished, and thereafter as indicated.

To prevent loss of pitch control because of looseness of the stabilator torque tube bearing support fittings, which could result in loss of control of the airplane, accomplish

the following:

(a) Inspect the stabilator torque tube bearing support fittings for looseness by accomplishing the following:

(1) Remove the tail cone and right rear aft fuselage access door.

(2) Grasp the stabilator tip and shake the tip from left to right and up and down.

NOTE 2: Piper Service Bulletin 411A, dated April 10, 1974, specifies these same procedures for inspecting the stabilator torque tube bearing support fittings.

(b) If looseness is found during the inspection specified in paragraph (a) of this AD, prior to further flight, incorporate Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit) on the affected fitting, and reinstall the tail cone and right rear aft fuselage access door.

(c) If looseness is not found during the inspection specified in paragraph (a) of this AD, prior to further flight, reinstall the tail cone and right rear aft fuselage access door, and reinspect the stabilator torque tube bearing support fittings for looseness at intervals not to exceed 100 hours TIS until Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit) is incorporated on all four stabilator torque tube bearing support fittings.

(d) Incorporating Piper Part No. 760 835 (Hi-Shear Rivet Replacement Kit) on all four stabilator torque tube bearing support fittings is considered terminating action for the inspection requirement of this AD.

(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 time that provides an equivalent level of safety may be approved by the Manager, Atlanta Aircraft Certification Office (ACO), 1669 Phoenix Parkway, Suite 210C, Atlanta, Georgia 30349. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta ACO.

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

(g) All persons affected by this directive may obtain copies of the document referred to herein upon request to the Piper Aircraft Corporation, 2926 Piper Drive, Vero Beach, Florida 32960; or may examine this document at the FAA, Central Region, Office of the Assistant Chief Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(h) This amendment (39-8951) supersedes AD 74-13-01, Amendment 39-1870.

(i) This amendment becomes effective on August 12, 1994.

Footer Information

Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [63 FR 57895 No. 209 10/29/98]

Docket No. 96-CE-09-AD; Amendment 39-10864; AD 97-01-01 R1

RIN 2120-AA64

Airworthiness Directives; The New Piper Aircraft, Inc. PA-24, PA-28R, PA-30, PA-32R, PA-34, and PA-39 Series Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule

SUMMARY: This amendment revises Airworthiness Directive (AD) 97-01-01, which currently requires repetitively inspecting the main gear sidebrace studs for cracks on The New Piper Aircraft, Inc. (Piper) Models PA-24, PA-28R, PA-30, PA-32R, PA-34, and PA-39 series airplanes, and replacing any main gear sidebrace stud found cracked. The Federal Aviation Administration (FAA) has approved certain alternative methods of compliance (AMOC) for AD 97-01-01, and has determined that these AMOC's should be incorporated into the AD. This AD will retain all the actions of AD 97-01-01, and will incorporate certain AMOC's as a way of accomplishing the actions specified in AD 97-01-01. The actions specified by this AD are intended to prevent a main landing gear collapse caused by main gear sidebrace stud cracks, which could result in loss of control of the airplane during landing operations.

EFFECTIVE DATE: December 8, 1998.

ADDRESSES: This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 96-CE-09-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Mr. William O. Herderich, Aerospace

Engineer, FAA, Atlanta Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6084; facsimile: (770) 703-6097.

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 Piper Models PA-24, PA-28R, PA-30, PA-32R, PA-34, and PA-39 series airplanes was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on May 22, 1998 (63 FR 28294). The NPRM proposed to supersede AD 97-01-01, Amendment 39-9872 (62 FR 10, January 2, 1997), which currently requires repetitively inspecting the main gear sidebrace studs for cracks on the above-referenced airplanes, and replacing any main gear sidebrace stud found cracked. The NPRM proposed to retain all the actions of AD 97-01-01, and incorporate certain alternative methods of compliance (AMOC's) as a way of accomplishing the actions specified in AD 97-01-01.

The NPRM was the result of the FAA approving AMOC's for modifying the existing bracket assembly as terminating action for the repetitive inspection requirement of that AD.

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 cost impact of this AD will be the same as is currently required by AD 97-01-01. As a courtesy, the FAA is reprinting that cost information in the following paragraphs.

The FAA estimates that 13,200 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 5 workhours per airplane to accomplish the initial inspection, and that the average labor rate is approximately $60 an hour. Based on these figures, the total cost impact of the inspection on U.S. operators is estimated to be $3,960,000. This figure represents the total cost of the initial inspection, and does not reflect costs for any of the repetitive inspections or possible replacements. The FAA has no way of determining how many main gear side brace studs may need replacement or how many repetitive inspections each owner/operator may incur over the life of the airplane.

In addition, this AD will require the same inspections required by AD 95-20-07 (which was superseded by AD 97-01-01). The only difference between this AD and AD 95-20-07 is the addition of an inspection-terminating modification option and the elimination of (from the "Applicability" section of the AD) certain airplanes that incorporate a certain

main side brace stud assembly. This AD will also not provide any additional cost impacts over that already required by AD 95-20-07.

Regulatory Impact
The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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

List of Subjects in 14 CFR Part 39
Air transportation, Aircraft, Aviation safety, 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) 97-01-01, Amendment 39-9872 (62 FR 10, January 2, 1997), and by adding a new AD to read as follows:

Regulatory Information

97-01-01 R1 THE NEW PIPER AIRCRAFT, INC.: Amendment 39-10864; Docket No. 96-CE-09-AD.

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

1. All serial numbers of Models PA-24, PA-24-250, PA-24-260, PA-24-400, PA-30, and PA-39 airplanes;

2. The following model and serial number airplanes that are not equipped with a Piper part number (P/N) 78717-02 (or FAA-approved equivalent part number) main gear

sidebrace stud in both right and left main gear sidebrace bracket assemblies:

Model	Serial Numbers
PA-28R-180	28R-30002 through 28R-31135, and 28R-7130001 through 28R-7130013
PA-28R-200	28R-35001 through 28R-35820, and 28R-7135001 through 28R-7635539
PA-28R-201	28R-7737002 through 28R-7737096
PA-28R-201T	28R-7703001 through 28R-7703239
PA-32R-300	32R-7680001 through 32R-7780444
PA-34-200	all serial numbers
PA-34-200T	34-7570001 through 34-7770372

NOTE 1: P/N 78717-02 sidebrace stud was installed at manufacture on Piper Model PA-34-200T airplanes, serial numbers 34-7670325 through 34-7770372.

NOTE 2: 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 (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 initially as follows, and thereafter as specified in the body of this AD:

1. For the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes: Within the next 100 hours time-in-service (TIS) after the effective date of this AD; or, if the main gear sidebrace stud has already been inspected or replaced as specified in this AD, within 500 hours TIS after the last inspection or replacement; whichever occurs later.

2. For the affected Models PA-24, PA-24-250, PA-24-260, PA-24-400, PA-30, and PA-39 airplanes: Within the next 100 hours TIS after the effective date of this AD; or, if the main gear sidebrace stud has already been inspected or replaced as specified in this AD, within 1,000 hours TIS after the last inspection or replacement; whichever occurs later.

To prevent main landing gear (MLG) collapse caused by main gear sidebrace stud cracks, which could result in loss of control of the airplane during landing operations, accomplish the following:

NOTE 3: The paragraph structure of this AD is as follows:

Level 1:	(a), (b), (c), etc.
Level 2:	(1), (2), (3), etc.

Level 3:	(i), (ii), (iii), etc.
Level 4:	(A), (B), (C), etc.

Level 2, Level 3, and Level 4 structures are designations of the Level 1 paragraph they immediately follow.

(a) Remove both the left and right main gear sidebrace studs from the airplane in accordance with the instructions contained in the Landing Gear section of the maintenance manual, and inspect each main gear sidebrace stud for cracks, using Type I (fluorescent) liquid penetrant or magnetic particle inspection methods. Figure 1 of this AD depicts the area of the sidebrace stud shank where the sidebrace stud is to be inspected.

NOTE 4: All affected Models PA-24 and PA-24-250 airplanes were equipped at manufacture with P/N 20829-00 main gear sidebrace studs. All affected Models PA-24-260, PA-24-400, PA-30, and PA-39 airplanes were equipped at manufacture with P/N 22512-00 main gear sidebrace studs. The Appendix included with this AD contains information on determining the P/N of the bracket assembly (which contains the main gear side brace stud) on the affected PA-28R, PA-32R, and PA-34 series airplanes.

(1) For any main gear sidebrace stud found cracked, prior to further flight, replace the cracked stud with an FAA-approved serviceable part (part numbers referenced in the table in paragraph (b) of this AD or FAA-approved equivalent part number) in accordance with the instructions contained in the Landing Gear section of the applicable maintenance manual, and accomplish one of the following, as applicable:

(i) Reinspect (and replace as necessary) as specified in paragraph (b) of this AD; or

(ii) For the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes, the 9/16-inch main gear sidebrace studs (P/N 95299-00, 95299-02, or P/N 67543, as applicable) are no longer manufactured. Install a new main gear sidebrace stud bracket assembly, P/N 95643-06, P/N 95643-07, P/N 95643-08, or P/N 95643-09, as applicable. No repetitive inspections will be required by this AD for these affected airplane models when this bracket assembly is installed on both the left and right sides; or

(iii) For the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes, ream the existing two-piece bushings to an inside diameter of .624-inch to .625-inch, chamfer the head side of the bushing to accommodate the radius in the shank of the main gear sidebrace stud, and install the 5/8-inch stud, P/N 78717-02. No repetitive inspections will be required by this AD when this action is accomplished on both the left and right bracket assemblies. If the bushings cannot be reamed while installed in the bracket (i.e., the bushings are loose), then install a main gear sidebrace bracket assembly, P/N 95643-06, P/N 95643-07, P/N 95643-08, or P/N 95643-09, as applicable. Models PA-28R-180 and PA-28R-200 with serial numbers as specified in the Appendix to this AD may be equipped with a bracket casting identified with casting number 67073-2 or 67073-3 and may require the following modification to P/N 78717-02 for proper installation:

(A) Reduce the length of the stud to 1.688 ñ 0.15 inches;

(B) Add additional rolled threads to 1.125 ñ .015 inches from the flange. Note that the stud is heat treated to 180 to 200 ksi; and

(C) Drill an additional roll pin hole 90 degrees to the existing hole, and approximately 1.480 inches from the flange.

(iv) No repetitive inspections will be required by this AD when a P/N 78717-02 (or FAA-approved equivalent part number) main gear sidebrace stud is installed in the existing bracket assembly on both the left and right sides; or when a bracket assembly, P/N 95643-06 (or FAA-approved equivalent part number), P/N 95643-07 (or FAA-approved equivalent part number), P/N 95643-08 (or FAA-approved equivalent part number), or P/N 95643-09 (or FAA-approved equivalent part number), as applicable, is installed on both the left and right sides.

(2) For any main gear sidebrace stud not found cracked, prior to further flight, reinstall the uncracked stud in accordance with the instructions contained in the Landing Gear section of the applicable maintenance manual, and reinspect and replace (as necessary) as specified in paragraph (b) of this AD.

(b) Reinspect both the left and right main gear sidebrace studs, using Type I (fluorescent) liquid penetrant or magnetic particle inspection methods. Replace any cracked stud or reinstall any uncracked stud as specified in paragraphs (a)(1) and (a)(2) of this AD, respectively:

Part Number Installed	**TIS Inspection Interval**	**Model Airplanes Installed on**
20829-00 (Piper parts) or FAA-approved equivalent part number	1,000 hours	PA-24 and PA-24-250
22512-00 (Piper parts) or FAA-approved equivalent part number	1,000 hours	PA-24-260, PA-24-400, PA-30, and PA-39
95299-00 or 95299-02 (Piper parts) or FAA-approved equivalent part number	500 hours	PA-28R-180 and PA-28R-200 not equipped with casting number 67073-2 or 67073-3, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T
67543 (Piper parts) or FAA-approved equivalent part number	500 hours	PA-28R-180 and PA-28R-200 equipped with casting number 67073-02 or 67073-03

NOTE 5: Accomplishing the actions of this AD does not affect the requirements of AD 77-13-21, Amendment 39-3093. The tolerance inspection requirements of that AD still apply for Piper PA-24, PA-30, and PA-39 series airplanes.

(c) Owners/operators of the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes may accomplish one of the following at any time to terminate the repetitive inspection requirement of this AD:

(1) Install a main gear sidebrace bracket assembly, P/N 95643-06 (or FAA-approved equivalent part number), P/N 95643-07 (or FAA-approved equivalent part number), P/N 95643-08 (or FAA-approved equivalent part number), or P/N 95643-09 (or FAA-approved equivalent part number), as applicable, which contains the 5/8-inch diameter main gear sidebrace stud, P/N 78717-02 (or FAA-approved equivalent part number), and the one-piece bushing, P/N 67026-12 (or FAA-approved equivalent part number). Accomplish these installations in accordance with the instructions contained in the Landing Gear section of the applicable maintenance manual; or

(2) Ream the existing two-piece bushings to an inside diameter of .624-inch to .625-inch, chamfer the head side of the bushing to accommodate the radius in the shank of the main gear sidebrace stud, and install the 5/8-inch stud, P/N 78717-02 (or FAA-approved equivalent part number). No repetitive inspections will be required by this AD when this action is accomplished on both the left and right bracket assemblies. If the bushings cannot be reamed while installed in the bracket (i.e., the bushings are loose), then install a main gear sidebrace bracket assembly, P/N 95643-06 (or FAA-approved equivalent part number), P/N 95643-07 (or FAA-approved equivalent part number), P/N 95643-08 (or FAA-approved equivalent part number), or P/N 95643-09 (or FAA-approved equivalent part number), as applicable. Models
PA-28R-180 and PA-28R-200 with serial numbers as specified in the Appendix to this AD may be equipped with a bracket casting identified with casting number 67073-2 or 67073-3 and may require the following modification to P/N 78717-02 (or FAA-approved equivalent part number) for proper installation:

(i) Reduce the length of the stud to 1.688 ñ 0.15 inches;

(ii) Add additional rolled threads to 1.125 ñ .015 inches from the flange. Note that the stud is heat treated to 180 to 200 ksi; and

(iii) Drill an additional roll pin hole 90 degrees to the existing hole, and approximately 1.480 inches from the flange.

(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, Atlanta Aircraft Certification Office (ACO), One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349.

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

(2) Alternative methods of compliance approved in accordance with AD 97-01-01, Amendment 39-9872 (revised by this action), or AD 95-20-07, Amendment 39-9386 (superseded by AD 97-01-01), are considered approved as alternative methods of compliance with this AD.

NOTE 6: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta ACO.

(f) Information related to this AD may be inspected at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri.

(g) This amendment revises AD 97-01-01, Amendment 39-9872, which superseded AD 95-20-07, Amendment 39-9386.

(h) This amendment becomes effective on December 8, 1998.

APPENDIX TO AD 97-01-01 R1; AMENDMENT NO. 39-10864;
DOCKET NO. 96-CE-09-AD
INFORMATION TO DETERMINE MAIN GEAR SIDEBRACE STUD ASSEMBLY PART NUMBER (P/N)

- The P/N 95643-00/-01/-02/-03 bracket assembly contains the 9/16-inch diameter main gear sidebrace stud, P/N 95299-00/-02, and a two-piece bushing, P/N 67026-6.

- The P/N 95643-06/-07/-08/-09 bracket assembly contains the 5/8-inch diameter main gear sidebrace stud, P/N 78717-02, and a one-piece bushing, P/N 67026-12.

- Both the one-piece and the two-piece bushing have a visible portion of the bushing flange, i.e., bushing shoulder.

- Whether a one-piece or two-piece bushing is installed may be determined by measuring the outside diameter of the bushing flange with a micrometer (jaws of the caliper must be 3/32-inch or less). The two-piece bushing will have an outside diameter of 1.00 inch and the one-piece bushing will have an outside diameter of 1.128 to 1.130 inches. This measurement is not valid for the following airplanes:

Model	Serial Numbers
PA-28R-180	28R-30004 through 28-31270
PA-28R-200	28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135062

The main gear sidebrace studs on these airplanes will require removal to determine the P/N installed.

- The one-piece bushing contains a visible chamfer in the center of the bushing, and the chamfer in the two-piece bushing is not visible when the stud is installed.

- If P/N 95643-00/-01/-02/-03 bracket assembly is installed or the above information cannot be utilized, the main gear sidebrace stud will need to be removed from the bracket to determine the shank diameter and main gear sidebrace stud P/N.

- P/N 95299-00 and P/N 95299-02 main gear sidebrace studs are 9/16-inch in diameter.

- P/N 78717-00 main gear sidebrace studs are 5/8-inch in diameter.

- P/N 95643-00/-01/-02/-03 bracket assembly may have been modified to accommodate

the 5/8-inch diameter main gear sidebrace stud, P/N 78717-02.

- The embossed number of 95363 on the bracket forging is not the bracket assembly P/N.

- The bracket assemblies identified with casting number 67073-2 or 67073-3 contain a 9/16-inch diameter main gear sidebrace stud, P/N 67543, and two-piece bushing, P/N 67026-2 and 67026-3.

- Model PA-28R-180 airplanes, serial numbers 28R-30004 through 28R-31270; and Model PA-28R-200 airplanes, serial numbers 28R-35001 through 28R-35820 and 28R-7135001 through 28R-7135062, are equipped from the factory with bracket assemblies identified with casting number 67073-2 and 67073-3.

- P/N 67543 main gear sidebrace studs are 9/16-inch in diameter.

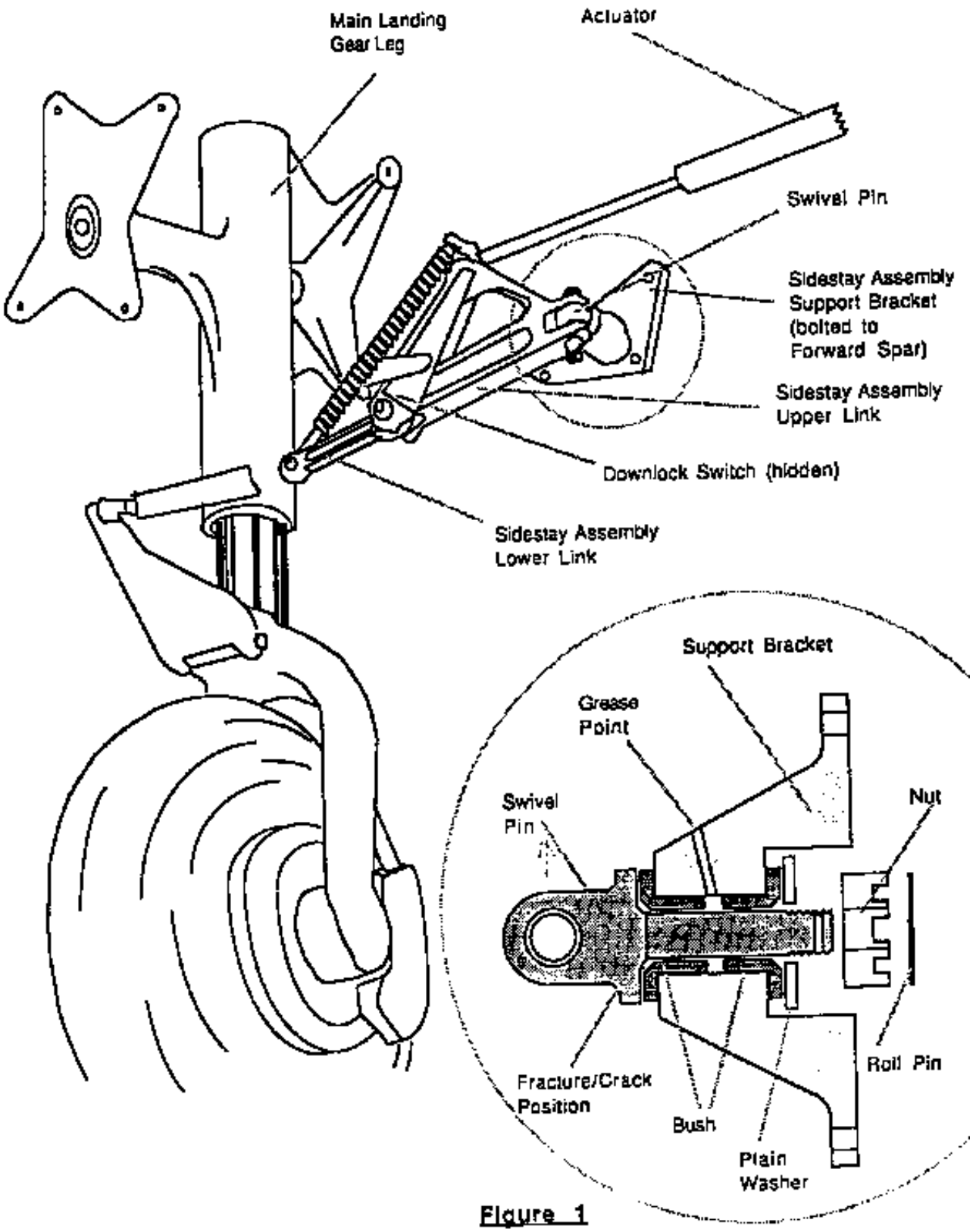

Figure 1

AD 97-01-01

▼Footer Information

▼Comments

Airworthiness Directive

Federal Register Information

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [63 FR 57895 No. 209 10/29/98]

Docket No. 96-CE-09-AD; Amendment 39-10864; AD 97-01-01 R1

RIN 2120-AA64

Airworthiness Directives; The New Piper Aircraft, Inc. PA-24, PA-28R, PA-30, PA-32R, PA-34, and PA-39 Series Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule

SUMMARY: This amendment revises Airworthiness Directive (AD) 97-01-01, which currently requires repetitively inspecting the main gear sidebrace studs for cracks on The New Piper Aircraft, Inc. (Piper) Models PA-24, PA-28R, PA-30, PA-32R, PA-34, and PA-39 series airplanes, and replacing any main gear sidebrace stud found cracked. The Federal Aviation Administration (FAA) has approved certain alternative methods of compliance (AMOC) for AD 97-01-01, and has determined that these AMOC's should be incorporated into the AD. This AD will retain all the actions of AD 97-01-01, and will incorporate certain AMOC's as a way of accomplishing the actions specified in AD 97-01-01. The actions specified by this AD are intended to prevent a main landing gear collapse caused by main gear sidebrace stud cracks, which could result in loss of control of the airplane during landing operations.

EFFECTIVE DATE: December 8, 1998.

ADDRESSES: This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 96-CE-09-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Mr. William O. Herderich, Aerospace

Engineer, FAA, Atlanta Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6084; facsimile: (770) 703-6097.

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 Piper Models PA-24, PA-28R, PA-30, PA-32R, PA-34, and PA-39 series airplanes was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on May 22, 1998 (63 FR 28294). The NPRM proposed to supersede AD 97-01-01, Amendment 39-9872 (62 FR 10, January 2, 1997), which currently requires repetitively inspecting the main gear sidebrace studs for cracks on the above-referenced airplanes, and replacing any main gear sidebrace stud found cracked. The NPRM proposed to retain all the actions of AD 97-01-01, and incorporate certain alternative methods of compliance (AMOC's) as a way of accomplishing the actions specified in AD 97-01-01.

The NPRM was the result of the FAA approving AMOC's for modifying the existing bracket assembly as terminating action for the repetitive inspection requirement of that AD.

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 cost impact of this AD will be the same as is currently required by AD 97-01-01. As a courtesy, the FAA is reprinting that cost information in the following paragraphs.

The FAA estimates that 13,200 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 5 workhours per airplane to accomplish the initial inspection, and that the average labor rate is approximately $60 an hour. Based on these figures, the total cost impact of the inspection on U.S. operators is estimated to be $3,960,000. This figure represents the total cost of the initial inspection, and does not reflect costs for any of the repetitive inspections or possible replacements. The FAA has no way of determining how many main gear side brace studs may need replacement or how many repetitive inspections each owner/operator may incur over the life of the airplane.

In addition, this AD will require the same inspections required by AD 95-20-07 (which was superseded by AD 97-01-01). The only difference between this AD and AD 95-20-07 is the addition of an inspection-terminating modification option and the elimination of (from the "Applicability" section of the AD) certain airplanes that incorporate a certain

main side brace stud assembly. This AD will also not provide any additional cost impacts over that already required by AD 95-20-07.

Regulatory Impact
The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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

List of Subjects in 14 CFR Part 39
Air transportation, Aircraft, Aviation safety, 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) 97-01-01, Amendment 39-9872 (62 FR 10, January 2, 1997), and by adding a new AD to read as follows:

Regulatory Information

97-01-01 R1 THE NEW PIPER AIRCRAFT, INC.: Amendment 39-10864; Docket No. 96-CE-09-AD.

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

1. All serial numbers of Models PA-24, PA-24-250, PA-24-260, PA-24-400, PA-30, and PA-39 airplanes;

2. The following model and serial number airplanes that are not equipped with a Piper part number (P/N) 78717-02 (or FAA-approved equivalent part number) main gear

sidebrace stud in both right and left main gear sidebrace bracket assemblies:

Model	Serial Numbers
PA-28R-180	28R-30002 through 28R-31135, and 28R-7130001 through 28R-7130013
PA-28R-200	28R-35001 through 28R-35820, and 28R-7135001 through 28R-7635539
PA-28R-201	28R-7737002 through 28R-7737096
PA-28R-201T	28R-7703001 through 28R-7703239
PA-32R-300	32R-7680001 through 32R-7780444
PA-34-200	all serial numbers
PA-34-200T	34-7570001 through 34-7770372

NOTE 1: P/N 78717-02 sidebrace stud was installed at manufacture on Piper Model PA-34-200T airplanes, serial numbers 34-7670325 through 34-7770372.

NOTE 2: 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 (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 initially as follows, and thereafter as specified in the body of this AD:

1. For the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes: Within the next 100 hours time-in-service (TIS) after the effective date of this AD; or, if the main gear sidebrace stud has already been inspected or replaced as specified in this AD, within 500 hours TIS after the last inspection or replacement; whichever occurs later.

2. For the affected Models PA-24, PA-24-250, PA-24-260, PA-24-400, PA-30, and PA-39 airplanes: Within the next 100 hours TIS after the effective date of this AD; or, if the main gear sidebrace stud has already been inspected or replaced as specified in this AD, within 1,000 hours TIS after the last inspection or replacement; whichever occurs later.

To prevent main landing gear (MLG) collapse caused by main gear sidebrace stud cracks, which could result in loss of control of the airplane during landing operations, accomplish the following:

NOTE 3: The paragraph structure of this AD is as follows:

Level 1:	(a), (b), (c), etc.
Level 2:	(1), (2), (3), etc.

Level 3:	(i), (ii), (iii), etc.
Level 4:	(A), (B), (C), etc.

Level 2, Level 3, and Level 4 structures are designations of the Level 1 paragraph they immediately follow.

(a) Remove both the left and right main gear sidebrace studs from the airplane in accordance with the instructions contained in the Landing Gear section of the maintenance manual, and inspect each main gear sidebrace stud for cracks, using Type I (fluorescent) liquid penetrant or magnetic particle inspection methods. Figure 1 of this AD depicts the area of the sidebrace stud shank where the sidebrace stud is to be inspected.

NOTE 4: All affected Models PA-24 and PA-24-250 airplanes were equipped at manufacture with P/N 20829-00 main gear sidebrace studs. All affected Models PA-24-260, PA-24-400, PA-30, and PA-39 airplanes were equipped at manufacture with P/N 22512-00 main gear sidebrace studs. The Appendix included with this AD contains information on determining the P/N of the bracket assembly (which contains the main gear side brace stud) on the affected PA-28R, PA-32R, and PA-34 series airplanes.

(1) For any main gear sidebrace stud found cracked, prior to further flight, replace the cracked stud with an FAA-approved serviceable part (part numbers referenced in the table in paragraph (b) of this AD or FAA-approved equivalent part number) in accordance with the instructions contained in the Landing Gear section of the applicable maintenance manual, and accomplish one of the following, as applicable:

(i) Reinspect (and replace as necessary) as specified in paragraph (b) of this AD; or

(ii) For the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes, the 9/16-inch main gear sidebrace studs (P/N 95299-00, 95299-02, or P/N 67543, as applicable) are no longer manufactured. Install a new main gear sidebrace stud bracket assembly, P/N 95643-06, P/N 95643-07, P/N 95643-08, or P/N 95643-09, as applicable. No repetitive inspections will be required by this AD for these affected airplane models when this bracket assembly is installed on both the left and right sides; or

(iii) For the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes, ream the existing two-piece bushings to an inside diameter of .624-inch to .625-inch, chamfer the head side of the bushing to accommodate the radius in the shank of the main gear sidebrace stud, and install the 5/8-inch stud, P/N 78717-02. No repetitive inspections will be required by this AD when this action is accomplished on both the left and right bracket assemblies. If the bushings cannot be reamed while installed in the bracket (i.e., the bushings are loose), then install a main gear sidebrace bracket assembly, P/N 95643-06, P/N 95643-07, P/N 95643-08, or P/N 95643-09, as applicable. Models PA-28R-180 and PA-28R-200 with serial numbers as specified in the Appendix to this AD may be equipped with a bracket casting identified with casting number 67073-2 or 67073-3 and may require the following modification to P/N 78717-02 for proper installation:

(A) Reduce the length of the stud to 1.688 ñ 0.15 inches;

(B) Add additional rolled threads to 1.125 ñ .015 inches from the flange. Note that the stud is heat treated to 180 to 200 ksi; and

(C) Drill an additional roll pin hole 90 degrees to the existing hole, and approximately 1.480 inches from the flange.

(iv) No repetitive inspections will be required by this AD when a P/N 78717-02 (or FAA-approved equivalent part number) main gear sidebrace stud is installed in the existing bracket assembly on both the left and right sides; or when a bracket assembly, P/N 95643-06 (or FAA-approved equivalent part number), P/N 95643-07 (or FAA-approved equivalent part number), P/N 95643-08 (or FAA-approved equivalent part number), or P/N 95643-09 (or FAA-approved equivalent part number), as applicable, is installed on both the left and right sides.

(2) For any main gear sidebrace stud not found cracked, prior to further flight, reinstall the uncracked stud in accordance with the instructions contained in the Landing Gear section of the applicable maintenance manual, and reinspect and replace (as necessary) as specified in paragraph (b) of this AD.

(b) Reinspect both the left and right main gear sidebrace studs, using Type I (fluorescent) liquid penetrant or magnetic particle inspection methods. Replace any cracked stud or reinstall any uncracked stud as specified in paragraphs (a)(1) and (a)(2) of this AD, respectively:

Part Number Installed	**TIS Inspection Interval**	**Model Airplanes Installed on**
20829-00 (Piper parts) or FAA-approved equivalent part number	1,000 hours	PA-24 and PA-24-250
22512-00 (Piper parts) or FAA-approved equivalent part number	1,000 hours	PA-24-260, PA-24-400, PA-30, and PA-39
95299-00 or 95299-02 (Piper parts) or FAA-approved equivalent part number	500 hours	PA-28R-180 and PA-28R-200 not equipped with casting number 67073-2 or 67073-3, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T
67543 (Piper parts) or FAA-approved equivalent part number	500 hours	PA-28R-180 and PA-28R-200 equipped with casting number 67073-02 or 67073-03

NOTE 5: Accomplishing the actions of this AD does not affect the requirements of AD 77-13-21, Amendment 39-3093. The tolerance inspection requirements of that AD still apply for Piper PA-24, PA-30, and PA-39 series airplanes.

(c) Owners/operators of the affected Models PA-28R-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-32R-300, PA-34-200, and PA-34-200T airplanes may accomplish one of the following at any time to terminate the repetitive inspection requirement of this AD:

(1) Install a main gear sidebrace bracket assembly, P/N 95643-06 (or FAA-approved equivalent part number), P/N 95643-07 (or FAA-approved equivalent part number), P/N 95643-08 (or FAA-approved equivalent part number), or P/N 95643-09 (or FAA-approved equivalent part number), as applicable, which contains the 5/8-inch diameter main gear sidebrace stud, P/N 78717-02 (or FAA-approved equivalent part number), and the one-piece bushing, P/N 67026-12 (or FAA-approved equivalent part number). Accomplish these installations in accordance with the instructions contained in the Landing Gear section of the applicable maintenance manual; or

(2) Ream the existing two-piece bushings to an inside diameter of .624-inch to .625-inch, chamfer the head side of the bushing to accommodate the radius in the shank of the main gear sidebrace stud, and install the 5/8-inch stud, P/N 78717-02 (or FAA-approved equivalent part number). No repetitive inspections will be required by this AD when this action is accomplished on both the left and right bracket assemblies. If the bushings cannot be reamed while installed in the bracket (i.e., the bushings are loose), then install a main gear sidebrace bracket assembly, P/N 95643-06 (or FAA-approved equivalent part number), P/N 95643-07 (or FAA-approved equivalent part number), P/N 95643-08 (or FAA-approved equivalent part number), or P/N 95643-09 (or FAA-approved equivalent part number), as applicable. Models
PA-28R-180 and PA-28R-200 with serial numbers as specified in the Appendix to this AD may be equipped with a bracket casting identified with casting number 67073-2 or 67073-3 and may require the following modification to P/N 78717-02 (or FAA-approved equivalent part number) for proper installation:

(i) Reduce the length of the stud to 1.688 ñ 0.15 inches;

(ii) Add additional rolled threads to 1.125 ñ .015 inches from the flange. Note that the stud is heat treated to 180 to 200 ksi; and

(iii) Drill an additional roll pin hole 90 degrees to the existing hole, and approximately 1.480 inches from the flange.

(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, Atlanta Aircraft Certification Office (ACO), One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349.

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

(2) Alternative methods of compliance approved in accordance with AD 97-01-01, Amendment 39-9872 (revised by this action), or AD 95-20-07, Amendment 39-9386 (superseded by AD 97-01-01), are considered approved as alternative methods of compliance with this AD.

NOTE 6: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta ACO.

(f) Information related to this AD may be inspected at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri.

(g) This amendment revises AD 97-01-01, Amendment 39-9872, which superseded AD 95-20-07, Amendment 39-9386.

(h) This amendment becomes effective on December 8, 1998.

APPENDIX TO AD 97-01-01 R1; AMENDMENT NO. 39-10864;
DOCKET NO. 96-CE-09-AD
INFORMATION TO DETERMINE MAIN GEAR SIDEBRACE STUD ASSEMBLY PART NUMBER (P/N)

- The P/N 95643-00/-01/-02/-03 bracket assembly contains the 9/16-inch diameter main gear sidebrace stud, P/N 95299-00/-02, and a two-piece bushing, P/N 67026-6.

- The P/N 95643-06/-07/-08/-09 bracket assembly contains the 5/8-inch diameter main gear sidebrace stud, P/N 78717-02, and a one-piece bushing, P/N 67026-12.

- Both the one-piece and the two-piece bushing have a visible portion of the bushing flange, i.e., bushing shoulder.

- Whether a one-piece or two-piece bushing is installed may be determined by measuring the outside diameter of the bushing flange with a micrometer (jaws of the caliper must be 3/32-inch or less). The two-piece bushing will have an outside diameter of 1.00 inch and the one-piece bushing will have an outside diameter of 1.128 to 1.130 inches. This measurement is not valid for the following airplanes:

Model	Serial Numbers
PA-28R-180	28R-30004 through 28-31270
PA-28R-200	28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135062

The main gear sidebrace studs on these airplanes will require removal to determine the P/N installed.

- The one-piece bushing contains a visible chamfer in the center of the bushing, and the chamfer in the two-piece bushing is not visible when the stud is installed.

- If P/N 95643-00/-01/-02/-03 bracket assembly is installed or the above information cannot be utilized, the main gear sidebrace stud will need to be removed from the bracket to determine the shank diameter and main gear sidebrace stud P/N.

- P/N 95299-00 and P/N 95299-02 main gear sidebrace studs are 9/16-inch in diameter.

- P/N 78717-00 main gear sidebrace studs are 5/8-inch in diameter.

- P/N 95643-00/-01/-02/-03 bracket assembly may have been modified to accommodate

the 5/8-inch diameter main gear sidebrace stud, P/N 78717-02.

- The embossed number of 95363 on the bracket forging is not the bracket assembly P/N.

- The bracket assemblies identified with casting number 67073-2 or 67073-3 contain a 9/16-inch diameter main gear sidebrace stud, P/N 67543, and two-piece bushing, P/N 67026-2 and 67026-3.

- Model PA-28R-180 airplanes, serial numbers 28R-30004 through 28R-31270; and Model PA-28R-200 airplanes, serial numbers 28R-35001 through 28R-35820 and 28R-7135001 through 28R-7135062, are equipped from the factory with bracket assemblies identified with casting number 67073-2 and 67073-3.

- P/N 67543 main gear sidebrace studs are 9/16-inch in diameter.

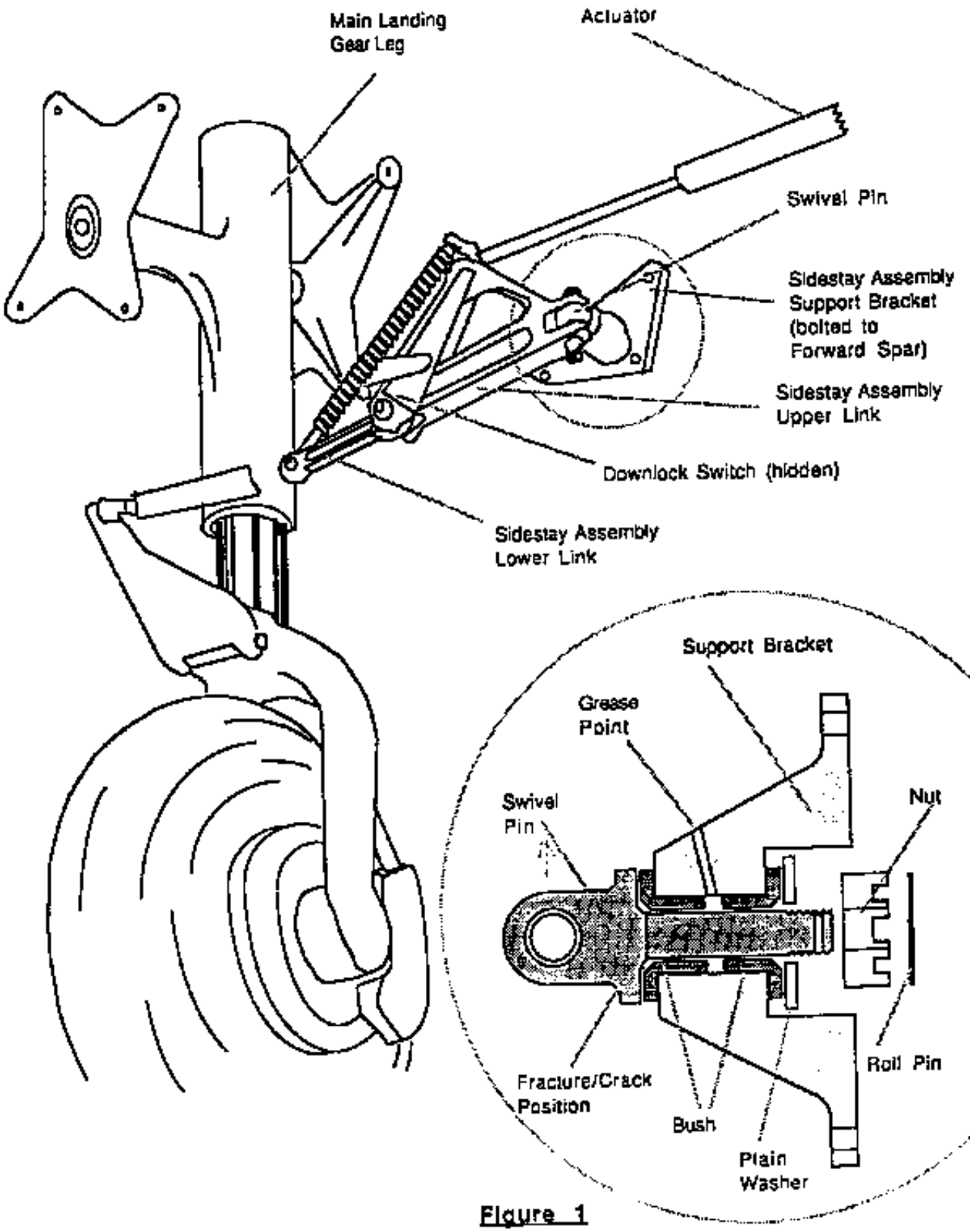

Figure 1

AD 97-01-01

▼Footer Information

▼Comments

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 34530 No. 123 06/28/99]

Docket No. 98-CE-77-AD; Amendment 39-11209; AD 99-14-01

RIN 2120-AA64

Airworthiness Directives; The New Piper Aircraft, Inc. PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 Series Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule

SUMMARY: This amendment supersedes Airworthiness Directive (AD) 98-04-27, which currently requires incorporating certain icing information into the FAA-approved airplane flight manual (AFM) of The New Piper Aircraft, Inc. (Piper) PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 series airplanes. The Federal Aviation Administration (FAA) inadvertently omitted Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes from the Applicability section of AD 98-04-27. This AD retains the requirement of incorporating the icing information into the AFM for all airplanes affected by AD 98-04-27, and adds Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes to the Applicability section of the AD. The actions specified by this AD are intended to minimize the potential hazards associated with operating these airplanes in severe icing conditions by providing more clearly defined procedures and limitations associated with such conditions.

DATES: Effective August 17, 1999.

ADDRESSES: Information related to this AD may be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-CE-77-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT: Mr. John P. Dow, Sr., Aerospace Engineer,

FAA, Small Airplane Directorate, 1201 Walnut, suite 900, Kansas City, Missouri 64106; telephone: (816) 426-6932; facsimile: (816) 426-2169.

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 Piper PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 series airplanes was published in the **Federal Register** on September 24, 1998 (63 FR 51045). The NPRM proposed to supersede AD 98-04-27, Amendment 39-10339 (63 FR 7668, February 17, 1998). AD 98-04-27 currently requires revising the Limitations Section of the FAA-approved airplane flight manual (AFM) to specify procedures that would specify the following for PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 series airplanes:

- require flight crews to immediately request priority handling from Air Traffic Control to exit severe icing conditions (as determined by certain visual cues);
- prohibit flight in severe icing conditions (as determined by certain visual cues);
- prohibit use of the autopilot when ice is formed aft of the protected surfaces of the wing, or when an unusual lateral trim condition exists; and
- require that all icing wing inspection lights be operative prior to flight into known or forecast icing conditions at night.

AD 98-04-27 also required revising the Normal Procedures Section of the FAA-approved AFM to specify procedures that would:

- limit the use of the flaps and prohibit the use of the autopilot when ice is observed forming aft of the protected surfaces of the wing, or if unusual lateral trim requirements or autopilot trim warnings are encountered; and
- provide the flight crew with recognition cues for, and procedures for exiting from, severe icing conditions.

The NPRM proposed to retain from AD 98-04-27 the requirement of incorporating certain icing information into the FAA-approved AFM for the affected airplanes, and would add Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes to the Applicability section of the AD.

The NPRM was the result of the FAA inadvertently omitting Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes from the Applicability section of AD 98-04-27.

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 estimates that 5,265 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 1 workhour per airplane to accomplish this action, and that the average labor rate is approximately $60 an hour. Since an owner/operator who holds at least a private pilot's certificate as authorized by sections 43.7 and 43.9 of the Federal Aviation Regulations (14 CFR 47.7 and 43.9) can accomplish this action, the only cost impact upon the public is the time it will take the affected airplane owners/operators to incorporate the AFM revisions.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator will accomplish these actions in the future if this AD were not adopted.

In addition, the FAA recognizes that this action may impose operational costs. However, these costs are incalculable because the frequency of occurrence of the specified conditions and the associated additional flight time cannot be determined. Nevertheless, because of the severity of the unsafe condition, the FAA has determined that continued operational safety necessitates the imposition of the costs.

Regulatory Impact
The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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

List of Subjects in 14 CFR Part 39
Air transportation, Aircraft, Aviation safety, 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) 98-04-27, Amendment 39-10339 (63 FR 7668, February 17, 1998), and by adding a new AD to

read as follows:

Regulatory Information

99-14-01 THE NEW PIPER AIRCRAFT, INC.: Amendment 39-11209; Docket No. 98-CE- 77-AD; Supersedes AD 98-04-27, Amendment 39-10339.

Applicability: Models PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-30, PA-39, PA-40, PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, PA-31T, PA-31T1, PA- 31T2, PA-31P-350, PA-34-200, PA-34-200T, PA-34-220T, PA-42, PA-42-720, and PA-42-1000 airplanes, all serial numbers, certificated in any category.

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 (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as follows, unless already accomplished:

1. For all affected airplanes, except for Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes: Within 30 days after March 13, 1997 (the effective date of AD 98-04-27).

2. For all Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes: Within the next 30 days after the effective date of this AD.

To minimize the potential hazards associated with operating the airplane in severe icing conditions by providing more clearly defined procedures and limitations associated with such conditions, accomplish the following:

(a) At the applicable compliance time presented in the Compliance section of this AD, accomplish the requirements of paragraphs (a)(1) and (a)(2) of this AD.

NOTE 2: Operators should initiate action to notify and ensure that flight crewmembers are apprised of this change.

(1) Revise the FAA-approved Airplane Flight Manual (AFM) by incorporating the following into the Limitations Section of the AFM. This may be accomplished by inserting a copy of this AD in the AFM.

"WARNING

Severe icing may result from environmental conditions outside of those for which the airplane is certificated. Flight in freezing rain, freezing drizzle, or mixed icing conditions
(supercooled liquid water and ice crystals) may result in ice

build-up on protected surfaces
exceeding the capability of the ice protection system, or may result in ice forming aft of the
protected surfaces. This ice may not be shed using the ice protection systems, and may
seriously degrade the performance and controllability of the airplane.

- During flight, severe icing conditions that exceed those for which the airplane is
  certificated shall be determined by the following visual cues. If one or more of these visual
  cues exists, immediately request priority handling from Air Traffic Control to facilitate a
  route or an altitude change to exit the icing conditions.

- Unusually extensive ice accumulation on the airframe and windshield in areas

not normally observed to collect ice.

- Accumulation of ice on the upper surface of the wing, aft of the protected area.

- Accumulation of ice on the engine nacelles and propeller spinners farther aft

than normally observed.

- Since the autopilot, when installed and operating, may mask tactile cues that
  indicate adverse changes in handling characteristics, use of the autopilot is
  prohibited when any of the visual cues specified above exist, or when unusual
  lateral trim requirements or autopilot trim warnings are encountered while the
  airplane is in icing conditions.
- All wing icing inspection lights must be operative prior to flight into known or
  forecast icing conditions at night. [NOTE: This supersedes any relief provided
  by the Master Minimum Equipment List (MMEL).]"

(2) Revise the FAA-approved AFM by incorporating the following into the Normal Procedures Section of the AFM. This may be accomplished by inserting a copy of this AD in the AFM.

"THE FOLLOWING WEATHER CONDITIONS MAY BE CONDUCIVE TO SEVERE IN-FLIGHT ICING:

- Visible rain at temperatures below 0 degrees Celsius ambient air temperature.

- Droplets that splash or splatter on impact at temperatures below 0 degrees Celsius ambient air temperature.

PROCEDURES FOR EXITING THE SEVERE ICING ENVIRONMENT:

These procedures are applicable to all flight phases from takeoff to landing. Monitor the ambient air temperature. While severe icing may form at temperatures as cold as -18 degrees Celsius, increased vigilance is warranted at temperatures around freezing with visible moisture present. If the visual cues specified in the Limitations Section of the AFM for identifying severe icing conditions are observed, accomplish the following:

- Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions in order to avoid extended exposure to flight conditions more severe than those for which the airplane has been certificated.
- Avoid abrupt and excessive maneuvering that may exacerbate control difficulties.
- Do not engage the autopilot.
- If the autopilot is engaged, hold the control wheel firmly and disengage the autopilot.
- If an unusual roll response or uncommanded roll control movement is observed, reduce the angle-of-attack.
- Do not extend flaps when holding in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area.
- If the flaps are extended, do not retract them until the airframe is clear of ice.
- Report these weather conditions to Air Traffic Control."

(b) Incorporating the AFM revisions, as required by this AD, may be performed by the owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), and must be entered into the aircraft records showing compliance with this AD in accordance with section 43.9 of the

Federal Aviation Regulations (14 CFR 43.9).

(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 airplane to a location where the requirements of this AD can be accomplished.

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Small Airplane Directorate, FAA, 1201 Walnut, suite 900, Kansas City, Missouri 64106. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.

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

(e) All persons affected by this directive may examine information related to this AD at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(f) This amendment supersedes AD 98-04-27, Amendment 39-10339.

(g) This amendment becomes effective on August 17, 1999.

[Federal Register: May 6, 2005 (Volume 70, Number 87)]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-19693; Directorate Identifier 2004-CE-40-AD; Amendment 39-14076; AD 2004-25-16 R1]

RIN 2120-AA64

Airworthiness Directives; Kelly Aerospace Power Systems Part Number (P/N) 14D11, A14D11, B14D11, C14D11, 23D04, A23D04, B23D04, C23D04, or P23D04 Fuel Regulator Shutoff Valves (Formerly Owned by ElectroSystems, JanAero Devices, Janitrol, C&D Airmotive Products, FL Aerospace, and Midland-Ross Corporation)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is revising Airworthiness Directive (AD) 2004-25-16, which applies to aircraft equipped with a fuel regulator shutoff valve part number (P/N) 14D11, A14D11, B14D11, C14D11, 23D04, A23D04, B23D04, C23D04, or P23D04 used with B1500, B2030, B2500, B3040, B3500, B4050, or B4500 B-Series combustion heaters. AD 2004-25-16 currently requires you to repetitively inspect the fuel regulator shutoff valve (visually or by pressure test) for fuel leakage and replace the fuel regulator shutoff valve with an improved design replacement part with a manufacturer's date code of 02/02 or later if fuel leakage is found. AD 2004-25-16 also allows you to disable the heater as an alternative method of compliance. Since we issued AD 2004-25-16, we received several comments requesting a revision to paragraph (e)(2). Consequently, this AD retains the actions required in AD 2004-25-16 and revises the requirements in paragraph (e)(2) to remove a required action. We are issuing this AD to prevent failure of the fuel regulator shutoff valve, which could result in fuel leakage in aircraft with these combustion heaters. This failure could result in an aircraft fire.

DATES: This AD becomes effective on June 20, 2005.

On January 5, 2005 (69 FR 75228, December 16, 2004), the Director of the Federal Register approved the incorporation by reference of Kelly Aerospace Power Systems Service Bulletin No. A-107A, Issue Date: September 6, 2002; and Piper Vendor Service Publication VSP-150, dated January 31, 2003.

ADDRESSES: To get the service information identified in this AD, contact Kelly Aerospace Power Systems, P.O. Box 273, Fort Deposit, Alabama 36032; telephone: (334) 227-8306; facsimile: (334) 227-8596; Internet: *http://www.kellyaerospace.com*.

To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at *http://dms.dot.gov*. The docket number is FAA-2004-19693; Directorate Identifier 2004-CE-40-AD.

FOR FURTHER INFORMATION CONTACT: Kevin L. Brane, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, One Crown Center, 1985 Phoenix Boulevard, Suite 450, Atlanta, GA 30349; telephone: (770) 703-6063; facsimile: (770) 703-6097.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? Reports of certain regulator shutoff valves leaking caused FAA to issue AD 2001-08-01, Amendment 39-12178 (66 FR 19718, April 17, 2001). AD 2001-08-01 required you to visually inspect and pressure test the fuel regulator shutoff valves for leaks and replace the fuel regulator shutoff valve if leaks were found.

The affected fuel regulator shutoff valves are part of the B1500, B2030, B2500, B3040, B3500, B4050, and B4500 combustion heater configuration.

Operators of aircraft with the affected fuel regulator shutoff valves installed and mechanics who did the actions of AD 2001-08-01 provided suggestions for improvement to the AD. Based on that feedback, FAA superseded AD 2001-08-01 with AD 2001-17-13, Amendment 39-12404 (66 FR 44027, August 22, 2001).

AD 2001-17-13 retained the actions of AD 2001-08-01, except it required only the visual inspection or the pressure test of the fuel regulator shutoff valves (not both) and listed the affected fuel regulator shutoff valves by part number instead of series. AD 2001-17-13 also included a provision for disabling the heater as an alternative method of compliance.

The FAA continued to receive reports of problems with these fuel regulator shutoff valves. This service history reflects that the inspections should be repetitive instead of one-time. Based on this information, FAA superseded AD 2001-17-13 with AD 2004-25-16, Amendment 39-13904 (69 FR 75228, December 16, 2004).

AD 2004-25-16 retains the actions required in AD 2001-17-13, makes the inspection repetitive, and requires installing improved design replacement parts.

What has happened since AD 2004-25-16 to initiate this AD action? We inadvertently retained an action from AD 2001-17-13 and made it repetitive. After each inspection of the fuel regulator shutoff valve for signs of fuel leaks and no leaks are found, AD 2004-25-16 requires the valve cover to be marked with the date of inspection.

Since AD 2004-25-16 made that inspection repetitive, it is not feasible to mark the valve cover with the date of each inspection. Therefore, we are revising AD 2004-25-16 to remove this action.

What is the potential impact if FAA took no action? This condition, if not corrected, could result in fuel leakage in aircraft with these combustion heaters, which could result in an aircraft fire with consequent damage or destruction.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to aircraft equipped with a fuel regulator shutoff valve part number (P/N) 14D11, A14D11, B14D11, C14D11, 23D04, A23D04, B23D04, C23D04, or P23D04 used with B1500, B2030, B2500, B3040, B3500, B4050, or B4500 B-Series combustion heaters. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on March 9, 2005 (70 FR 11588). The NPRM proposed to revise AD 2004-25-16 with a new AD that would retain the actions required in AD 2004-25-16 and removes the requirement to mark the valve cover with the date of inspection as specified in paragraph (e)(2) of the AD.

Comments

Was the public invited to comment? We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

Comment Issue No. 1: Remove the Piper Models PA-30 and PA-39 Airplanes From the Applicability

What is the commenter's concern? Three commenters state that an incident involving a Piper Model PA-31 airplane prompted the AD. The PA-31 airplane has a different fuel regulator shutoff valve configuration and a larger heater than Models PA-30 and PA-39 airplanes.

Model PA-31 airplanes run 35 pounds per square inch (PSI) fuel pressure at all times the engines are operating to the pressure regulator shutoff valve. The fuel line on Model PA-31 airplanes is also larger than the fuel line on Models PA-30 and PA-39 airplanes.

Model PA-30 airplanes run 7.5 PSI fuel pressure and the fuel line is \1/16\ inch with an internal orifice of \1/32\ inch. Therefore, the Model PA-30 airplane has one-fifth the pressure going to the regulator shutoff valve. Models PA-30 and PA-39 airplanes also have a fuel shutoff valve approximately 12 inches up-line from the pressure regulator shutoff valve.

According to the Aircraft Flight Manual, this valve should be closed except when the heater is in operation. When the manual fuel valve is closed, there is no pressure on the regulator resulting in little to no chance of fuel leakage.

The commenters request Models PA-30 and PA-39 airplanes be removed from the applicability of the AD.

What is FAA's response to the concern? The description of fuel system line sizes and volumes described by the commenters does not match those shown in the type design of the Models PA-30 and PA-39 airplanes.

The fuel pressure values stated by the commenters are below those seen in the supply line to Model PA-30 airplanes. Although the fuel regulator and shutoff valve supply pressures in Models PA-30 and PA-39 airplanes are below that of PA-31 series airplanes (as indicated by the commenters), the pressures are similar to that of other aircraft models for which leakage has been documented through the submittal of service difficulty reports.

The evaluation of leaking fuel regulator and shutoff valves has revealed a loss of clamping of the diaphragm by the assembly fasteners. This may be attributed to distortion of the diaphragm resulting in displacement or local thinning, local distortion of the housings either at or between the fastener locations or a loss of fastener preload.

We are not changing the final rule AD action based on this comment. If an individual operator has an airplane configuration that is different than that specified in the type design, he/she may request an alternative method of compliance (AMOC) following the procedures in the AD and 14 CFR part 39.

Comment Issue No. 2: Change the Compliance Time From 100 Hours Time-in-Service (TIS) Aircraft Operating Service to 100 Hours TIS Heater Operating Service or at the Annual Inspection

What is the commenter's concern? The commenter states that most Model PA-30 airplanes are based in warm climates where the heater is used for only a few hours a year. According to the Aircraft Flight Manual, this valve should be closed except when the heater is in operation. When the manual fuel valve is closed, there is no pressure on the regulator resulting in little to no chance of fuel leakage.

The commenter states the requirement to inspect every 100 hours TIS on the airplane imposes an unnecessary burden.

The commenter requests the inspection time change to 100 hours of heater operation or at the next annual inspection.

What is FAA's response to the concern? The evaluation of leaking fuel regulator and shutoff valves may be attributed to the deterioration of the diaphragm material itself. As with any other rubberized material, this results from environmental exposure over a period of time. As the described mechanisms do not directly relate to heater operation, the inspection interval was selected as aircraft TIS and not heater TIS. Although the use of a manual fuel shutoff valve may reduce the likelihood of fuel leakage when the heater is not operating, it does not reduce the effects of TIS on the condition of the fuel regulator and shutoff valve.

The owner/operator may request an extension or different compliance time through an AMOC by following the procedures in the AD and 14 CFR part 39.

We are not changing the final rule AD action based on this comment.

Conclusion

What is FAA's final determination on this issue? We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for the changes discussed above and minor editorial corrections. We have determined that these changes and minor corrections:

–Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
–Do not add any additional burden upon the public than was already proposed in the NPRM.

Changes to 14 CFR Part 39–Effect on the AD

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Costs of Compliance

What is the cost impact of this revision? Since we are revising AD 2004-25-16 to remove a required action from the previous AD, there is no cost impact for this revision.

Authority for This Rulemaking

What authority does FAA have for issuing this rulemaking action? Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Findings

Will this AD impact various entities? We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

Will this AD involve a significant rule or regulatory action? For the reasons discussed above, I certify that this AD:

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. 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.

We prepared a summary of the costs to comply with this AD (and other information as included in the Regulatory Evaluation) and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2004-19693; Directorate Identifier 2004-CE-40-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under 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. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2004-25-16, Amendment 39-13904 (69 FR 75228), and by adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
Federal Aviation Administration

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-25-16 R1 Kelly Aerospace Power Systems (formerly owned by ElectroSystems, JanAero Devices, Janitrol, C&D Airmotive Products, FL Aerospace, and Midland-Ross Corporation): Amendment 39-14076; Docket No. FAA-2004-19693; Directorate Identifier 2004-CE-40-AD; revises AD 2004-25-16, Amendment 39-13904.

When Does This AD Become Effective?

(a) This AD becomes effective on June 20, 2005.

What Other ADs Are Affected By This Action?

(b) This AD revises AD 2004-25-16, Amendment 39-13904.

What Airplanes Are Affected by This AD?

(c) This AD applies to aircraft equipped with a fuel regulator shutoff valve part number (P/N) 14D11, A14D11, B14D11, C14D11, 23D04, A23D04, B23D04, C23D04, or P23D04 used with B1500, B2030, B2500, B3040, B3500, B4050, or B4500 B-Series combustion heaters. The following is a list of aircraft where the B-Series combustion heater could be installed. This is not a comprehensive list and aircraft not on this list that have the heater installed through field approval or other methods are still affected by this AD:

Manufacturer	Aircraft models/series
(1) Bombardier Inc	CL–215, CL–215T, and CLT–415.
(2) Cessna Aircraft Company	208, T303, 310F, 310G, 310H, 310I, 310J, 310K, 310L, 310N, 310P, 310Q, 320C, 320D, 320E, 320F, 337 Series, 340, 340A, 414, 414A, 421, 421A, 421B, and 421C.
(3) The New Piper Aircraft Inc	PA–23 Series, PA–30, PA–31 Series, PA–34 Series, PA–39, and PA–44 Series.
(4) Raytheon Aircraft Corporation	95–B55 Series, 58, 58TC, 58P, 60, A60, and 76.

Note 1: The B1500, B2030, B2500, B3040, B3500, B4050, or B4500 B-Series combustion heaters were previously manufactured by Janitrol, C&D Airmotive Products, FL Aerospace, and Midland-Ross Corporation.

What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of numerous reports of fuel regulator shutoff valves leaking fuel. We are issuing this AD to prevent failure of the fuel regulator shutoff valve, which could result in fuel leakage in aircraft with these combustion heaters. This failure could result in an aircraft fire.

What Must I Do To Address This Problem?

(e) To address this problem, you must do the following:

Actions	Compliance	Procedures
(1) Visually inspect or pressure test the fuel regulator shutoff valve for any signs of fuel leaks.	Within the next 25 hours aircraft time-in-service (TIS) after January 5, 2005, (the effective date of AD 2004–25–16), unless already done within the last 75 hours aircraft TIS (*e.g.,* compliance with AD 2001–08–01 or 2001–17–13). Repetitively inspect thereafter at intervals not to exceed 100 hours aircraft TIS or 12 months, whichever occurs first. This is established to coincide with 100-hour and annual with 100-hour and annual inspections.	Locate the pressure shutoff valve in the installation using the applicable maintenance manual for valve location, removal, and installation instructions. Follow the procedures in Kelly Aerospace Power Systems Service Bulletin No. A–107A, Issue Date: September 6, 2002, for the visual inspection or the pressure test.
(2) If no fuel leaks or no signs of fuel stains are found during each inspection required by paragraph (e)(1) of this AD, make a log book entry with the date of inspection (month/year).	Prior to further flight after each inspection required in paragraph (e)(1) of this AD.	Follow the procedures in Kelly Aerospace Power Systems Service Bulletin No. A–107A, Issue Date: September 6, 2002.
(3) If any signs of fuel leaks or any signs of fuel stains are found during any inspection required in paragraph (e)(1) of this AD, replace the valve with a new valve of appropriate part number (P/N) that has a manufacturer's date code of 02/02 or later. For Piper PA–31–350 model aircraft, replace P/N A23D04–7.5 valve with P/N P23D04–7.5 Ensure there are no fuel leaks in the replacement valve by following the inspection and documentation requirements in paragraphs (e)(1) and (e)(2) of this AD.	Before further flight after the inspection where any fuel leak was found.	Follow Kelly Aerospace Power Systems Service Bulletin No. A–107A, Issue Date: September 6, 2002; Piper Vendor Service Publication VSP–150, dated January 31, 2003; and the applicable maintenance manual.

(4) As an alternative method of compliance to this AD, you may disable the heater provided you immediately comply with inspection, identification, and replacement requirements of this AD when you bring the heater back into service. Do the following actions when disabling: (i) Cap the fuel supply line upstream of the fuel regulator and shutoff valve; (ii) Disconnect the electrical power and ensure that the connections are properly secured to reduce the possibility of electrical spark or structural damage; (iii) Inspect and test to ensure that the cabin heater system is disabled; (iv) Ensure that no other aircraft system is affected by this action; (v) Ensure there are no fuel leaks; and (vi) Fabricate a placard with the words: ‘‘System Inoperative’’. Install this placard at the heater control valve within the pilot’s clear view.	If you choose this option, you must do it before the next required inspection specified in paragraph (e)(1) of this AD. To bring the heater back into service, you must do the actions of paragraphs (e)(1), (e)(2), and (e)(3) of this AD (inspection, identification, and replacement, as necessary).	Not Applicable.
(5) Only install a fuel regulator shutoff valve with a manufacture date code of 02/02 or later.	As of January 5, 2005, (the effective date of AD 2004–25–16).	Not Applicable.

May I Request an Alternative Method of Compliance?

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19.

(1) Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Manager, Atlanta ACO, FAA. For information on any already approved alternative methods of compliance, contact Kevin L. Brane, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, One Crown Center, 1985 Phoenix Boulevard, Suite 450, Atlanta, GA 30349; telephone: (770) 703-6063; facsimile: (770) 703-6097.

(2) Alternative methods of compliance approved for AD 2004-25-16, which is revised by this AD, are approved as alternative methods of compliance with this AD.

Does This AD Incorporate Any Material By Reference?

(g) You must do the actions required by this AD following the instructions in Kelly Aerospace Power Systems Service Bulletin No. A-107A, Issue Date: September 6, 2002; and Piper Vendor Service Publication VSP-150, dated January 31, 2003.

(1) On January 5, 2005 (69 FR 75228, December 16, 2004), and in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, the Director of the Federal Register previously approved the incorporation by reference.

(2) To get a copy of the service information, contact Kelly Aerospace Power Systems, P.O. Box 273, Fort Deposit, Alabama 36032; telephone: (334) 227-8306; facsimile: (334) 227-8596; Internet: *http://www.kellyaerospace.com*. To review copies of the service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html* or call (202) 741-6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at *http://dms.dot.gov*. The docket number is FAA-2004-19693; Directorate Identifier 2004-CE-40-AD.

Issued in Kansas City, Missouri, on April 28, 2005.

John R. Colomy,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-18743; Directorate Identifier 2004-CE-23-AD; Amendment 39-13944; AD 2005-01-19]

RIN 2120-AA64

Airworthiness Directives; GARMIN International Inc. GTX 33, GTX 33D, GTX 330, and GTX 330D Mode S Transponders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) to supersede Airworthiness Directive 2004-10-15, which applies to certain GTX 330 and GTX 330D Mode S transponders that are installed on airplanes. AD 2004-10-15 currently requires you to install GTX 330/330D Software Upgrade Version 3.03, 3.04, or 3.05. This AD applies to certain GTX 33, GTX 33D, GTX 330, and GTX 330D Mode S transponders that are installed on airplanes and is the result of observations that the GTX 33/33D/330/330D may detect, from other airplanes, the S1 (suppression) interrogating pulse below the minimum trigger level (MTL) and, in some circumstances, not reply. The GTX 33/33D/330/330D should still reply even if it detects S1 interrogating pulses below the MTL. Consequently, this AD would require you to install a GTX 33/33D/330/330D Software Upgrade to at least Version 3.06. No additional action is necessary for those airplanes that have transponders Software Upgrade 3.03 installed. Software Upgrade Versions 3.03 and 3.06 correct a TAS, TCAD, and TCAS I system "whisper-shout" problem that could potentially lead to the aircraft not being visible at certain ranges. TCAS II systems are not affected. We are issuing this AD to prevent interrogating aircraft from possibly receiving inaccurate replies due to suppression from aircraft equipped with the GTX 33/33D/330/330D Mode S transponders when the pulses are below the MTL. The inaccurate replies could result in reduced vertical separation.

DATES: This AD becomes effective on February 23, 2005.

As of February 23, 2005, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation.

ADDRESSES: To get the service information identified in this AD, contact GARMIN International Inc., 1200 East 151st Street, Olathe, KS 66062; telephone: 913-397-8200. To review this service

information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html* or call (202) 741-6030.

To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at *http://dms.dot.gov*. The docket number is FAA-2004-18743.

FOR FURTHER INFORMATION CONTACT: Roger A. Souter, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: 316-946-4134; facsimile: 316-946-4107; e-mail address: roger.souter@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? The GTX 330/GTX 330D may detect from other aircraft the S1 (suppression) interrogating pulse below the MTL and, in some circumstances, does not reply. The GTX 330/330D should still reply even if it detects S1 interrogating pulses below the MTL, and this caused FAA to issue AD 2004-10-15, Amendment 39-13645 (69 FR 29212, dated May 21, 2004). AD 2004-10-15 currently requires the incorporation of GTX 330/330D Software Upgrade to at least Version, 3.03, 3.04, or 3.05 on certain GTX 330 and GTX 330D Mode S transponders that are installed on airplanes.

What has happened since AD 2004-10-15 to initiate this action? After the issuance of AD 2004-10-15, GARMIN International Inc. discovered that minor changes made to GTX 330/330D Software Upgrades 3.04 and 3.05 inadvertently removed the correction to not suppress the S1 pulse below MTL. Garmin also discovered the Software Upgrade must be installed on GTX 33 and GTX 33D Mode S transponders as well as the GTX 330 and GTX 330D Mode S transponders.

What is the potential impact if FAA took no action? If these changes are not incorporated, then interrogating aircraft could possibly receive inaccurate replies due to suppression from aircraft equipped with the GTX 33/33D/330/330D Mode S transponders when the pulses are below the MTL. Software Upgrade Version 3.03 and 3.06 correct a TAS, TCAD, and TCAS I system "whisper-shout" problem that could potentially lead to the aircraft not being visible at certain ranges. TCAS II systems are not affected. The inaccurate replies could result in reduced vertical separation.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain GTX 330 and GTX 330D Mode S transponders that are installed on airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on October 7, 2004 (69 FR 60100). The NPRM proposed to require you to install GTX 33/33D/330/330D Software Upgrade Version 3.03 or 3.06.

Comments

Was the public invited to comment? We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

Comment Issue: Direct the AD Only to Those Products That Have the Old SW Versions 3.00, 3.01, 3.02, 3.04, and 3.05

What is the commenter's concern? The NPRM currently requires installation of GTX 330/330D Software Upgrade Version 3.03 or 3.06 to comply with the proposed AD, or later Software Versions by way of an AMOC. The commenter would like to direct the AD only to those products that have the old software versions 3.00, 3.01, 3.02, 3.04, and 3.05 installed; so that if the new software version 3.06 or later is installed the AD does not affect that product. The AD should not apply to future software versions.

What is FAA's response to the concern? We concur. This was the intent of the NPRM, and we have reworded the AD to reflect this comment.

Conclusion

What is FAA's final determination on this issue? We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for the changes discussed above and minor editorial corrections. We have determined that these changes and minor corrections:

–Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
–Do not add any additional burden upon the public than was already proposed in the NPRM.

Docket Information

Where can I go to view the docket information? You may view the AD docket that contains information relating to this subject in person at the DMS Docket Offices between 9 a.m. and 5 p.m. (eastern standard time), Monday through Friday, except Federal holidays. The Docket Office (telephone 1-800-647-5227) is located on the plaza level of the Department of Transportation NASSIF Building at the street address stated in ADDRESSES. You may also view the AD docket on the Internet at *http://dms.dot.gov*.

Changes to 14 CFR Part 39–Effect on the AD

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Costs of Compliance

How many airplanes does this AD impact? We estimate that this AD affects 5,400 airplanes in the U.S. registry.

What is the cost impact of this AD on owners/operators of the affected airplanes? Garmin International Inc. will provide warranty only for Service Bulletin No. 0409, dated July 19, 2004 (which incorporates Software Upgrade 3.06) installation as specified in the service information. Although Software Upgrade 3.03 is still in compliance with this proposed AD, if previously installed, Software Upgrade 3.03 is no longer available through Garmin.

Authority for This Rulemaking

What authority does FAA have for issuing this rulemaking action? Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Findings

Will this AD impact various entities? We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

Will this AD involve a significant rule or regulatory action? For the reasons discussed above, I certify that this AD:

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. 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.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2004-18743; Directorate Identifier 2004-CE-23-AD" in your request.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under 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. FAA amends § 39.13 by removing AD 2004-10-15, Amendment 39-13645 and adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
Federal Aviation
Administration

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-01-19 GARMIN International Inc.: Amendment 39-13944; Docket No. FAA-2004-18743; Directorate Identifier 2004-CE-23-AD.

When Does This AD Become Effective?

(a) This AD becomes effective on February 23, 2005.

What Other ADs Are Affected by This Action?

(b) This AD supersedes AD 2004-10-15, Amendment 39-13645.

What Airplanes Are Affected by This AD?

(c) This AD affects GARMIN International Inc. GTX 33, GTX 33D, GTX 330, and GTX 330D Mode S transponders that include software versions 3.00, 3.01, 3.02, 3.04, or 3.05 that are installed on, but not limited to, the following airplanes, certificated in any category:

Manufacturer	Model
(1) Aermacchi S.p.A	S.205–18/F, S.205–18/R, S.205–20/R, S.205–22/R, S208, S.208A, F.260, F.260B, F.260C, F.260D, F.260E, F.260F, S.211A.
(2) Aeronautica Macchi S.p.A	AL 60, AL 60–B, AL 60–F5, AL 60–C5, AM–3.
(3) Aerostar Aircraft Corporation	PA–60–600 (Aerostar 600), PA–60–601 (Aerostar 601), PA–60–601P (Aerostar 601P), PA–60–602P (Aerostar 602P), PA–60–700P (Aerostar 700P), 360, 400.
(4) Alexandria Aircraft, LLC	14–19, 14–19–2, 14–19–3, 14–19–3A, 17–30, 17–31, 17–31TC, 17–30A, 17–31A, 17–31ATC
(5) Alliance Aircraft Group LLC	15A, 20, H–250, H–295 (USAFU–10D), HT–295, H391 (USAFYL–24), H391B, H–395 (USAFL–28A or U–10B), H–395A, H–700, H–800, HST–550, HST–550A (USAF AU–24A), 500.
(6) American Champion Aircraft Corp	402, 7GCA, 7GCB, 7KC, 7GCBA, 7GCAA, 7GCBC, 7KCAB, 8KCAB, 8GCBC.
(7) Sky International Inc	A–1, A–1A, A–1B, S–1S, S–1T, S–2, S–2A, S–2S, S–2C.
(8) B–N Group Ltd	BN–2, BN–2A, BN–2A–2, BN–2A–3, BN–2A–6, BN–2A–8, BN–2A–8, BN–2A–20, BN–2A–21, BN–2A–26, BN–2A–27, BN–2B–20, BN–2B–21, BN–2A–26, BN–2A–27, BN–2B–20, BN–2B–21, BN–2B–26, BN–2B–27, BN–2T, BN–2T–4R, BN–2A MK.III, BN2A MK. III–2, BN2A MK. 111–3.

(9) Bellanca	14–13, 14–13–2, 14–13–3, 14–13–3W.
(10) Bombardier Inc	(Otter) DHC–3, DHC–6–1, DHC–6–100, DHC–6–200, DHC–6–300.
(11) Cessna Aircraft Company	170, 170A, 170B, 172, 172A, 172B, 172C, 172D, 172E, 172F (USAF T–41A), 172G, 172H (USAF T041A), 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 172R, 172S, 172RG, P172D, R172E (USAF T–41 B) (USAF T–41 C AND D), R172F (USAF T–41 D), R175G, R172H (USAF T–41 D), R172J, R172K, 175, 175A, 175B, 175C, 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, 182S, 182T, R182, T182, TR182, T182T, 185, 185A, 185B, 185C, 185D, 185E, A185E, A185F, 190, (LC–126A, B, C) 195, 195A, 195B, 210, 210A, 210B, 210C, 210D, 210E, 210F, T210F, 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, T210M, 210N, P210N, T210N, 210R, P210R, T210R, 210–5 (205), 210–5A (205A), 206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TU206D, TU206E, TU206F, TU206G, 206H, T206H, 207, 207A, T207, T207A, 208, 208A, 208B, 310, 310A (USAF U–3A), 310B, 310C, 310D, 310E (USAF U–3B), 310F, 310G, 310H, E310H, 310I, 310J, 310J–1, E310J, 310K, 310L, 310N, 310P, T310P, 310Q, T310Q, 310R, T310R, 320, 320A, 320B, 320C, 320D, 320E, 320F, 320–1, 335, 340, 340A, 336, 337, 337A (USAF 02B), 337B, T337B, 337C, 337E, T337E, T337C, 337D, T337D, M337B (USAF 02A), 337F, T337F, T337G, 337G, 337H, P337H, T337H, T337H–SP, 401, 401A, 401B, 402, 402A, 402B, 402C, 411, 411A, 414, 414A, 421, 421A, 421B, 421C, 425, 404, 406, 441.
(12) Cirrus Design Corporation	SR20, SR22.
(13) Commander Aircraft Company	112, 112TC, 112B, 112TCA, 114, 114A, 114B, 114TC.
(14) de Havilland Inc	DHC–2 Mk. I, DHC–2 Mk. II, DHC–2 Mk. III.
(15) Dynac Aerospace Corporation	(Volaire) 10, (Volaire) 10A, (Aero Commander) 100, (Aero Commander) 100A, (Aero Commander) 100–180.
(16) Diamond Aircraft Industries	DA 20–A1, DA20–C1, DA 40.
(17) Empressa Brasileira de Aeronautica S.A. EMBRAER.	EMB–110P1, EMB–110P2.
(18) Extra Flugzeugbau Gmbh	EA300, EA300L, EA300S, EA300/200, EA–400.
(19) Fairchild Aircraft Corporation	SA26–T, SA26–AT, SA226–T, SA226–AT, SA226–T(B), SA227–AT, SA227–TT, SA226–TC, SA227–AC (C–26A), SA227–CC, SA227–DC (C–26B).
(20) Global Amphibians, LLC	Colonial C–1, Colonial C–2, Lake LA–4, Lake LA–4A, Lake LA–4P, Lake LA–4–200, Lake Model 250.
(21) Grob-Werke	G115, G115A, G115B, G115C, G115C2, G115D, G115D2, G115EG, G120A.

(22) Lancair Company	LC40–550FG.
(23) LanShe Aerospace, LLC	MAC–125C, MAC–145, MAC–145A, MAC–145B.
(24) Learjet Inc.	23.
(25) Lockheed Aircraft Corporation	18.
(26) Luscombe Aircraft Corporation	11A, 11E.
(27) Maule Aerospace Technology, Inc	Bee Dee M–4, M–4, M–4C, M–4S, M–4T, M–4180C, M–4–180S, M–4–180T, M–4–210, M–4–210C, M–4–210S, M–4–210T, M–4–220, M–4–220S, M–4–220T, M–5–180C, M–5–200, M–5–210C, M–5–210TC, M–5–220C, M–5–235C, M–6–180, M–6–235, M–7–235, MX–7–235, MX–7–180, MX–7–420, MXT–7–180, MT–7–235, M–8–235, MX–7–160, MXT–7–160, MX–7–180A, MXT–7–180A, MX–7–180B, M–7–235B, M–7–235A, M–7–235C, MX–7–180C, M–7–260, MT–7–260, M–7–260C, M–7–420AC, MX–7–160C, MX–7–180AC, M–7–420A, MT–7–420.
(28) Mitsubishi Heavy Industries, Ltd	MU–2B–25, MU–2B–35, MU–2B–26, MU–2B–36, MU–2B–26A, MU–2B–36A, MU–2B–40, MU–2B–60, MU–2B, MU–2B–20, MU–2B–15.
(29) Mooney Airplane Company, Inc	M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22.
(30) Moravan a.s	Z–242L, Z–143L.
(31) Navion Aircraft Company, Ltd	NAVION, Navion (L–17A), Navion (L17B), Navion (L–17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H.
(32) New Piper Aircraft, Inc	PA–12, PA–12S, PA–18, PA–18S, PA–18 ‘‘105’’ (Special), PA–18S ‘‘105’’ (Special), PA–18A, PA–18 ‘‘125’’ (Army L–21A), PA–18S ‘‘125,’’ PA–18AS ‘‘125,’’ PA–18 ‘‘135’’ (Army L–21B), PA–18A ‘‘135,’’ PA–18S ‘‘135,’’ PA–18 ‘‘150,’’ PA–18A ‘‘150,’’ PA–18S ‘‘150,’’ PA–18AS ‘‘150,’’ PA–19 (Army L–18B), PA–19S, PA–20, PA–20S, PA–20 ‘‘115,’’ PA–20S ‘‘115,’’ PA–20 ‘‘135,’’ PA–20S ‘‘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–23, PA–23–160, PA–23–235, PA–23–250, PA–E23–250, PA–24, PA–24–250, PA–24–260, PA–24–400, PA–28–140, PA–28–150, PA–28–151, PA–28–160, PA–28–161, PA–28–180, PA–28–235, PA–28S–160, PA–28R–180, PA–28S–180, PA–28–181, PA–28R–200, PA–28R–201, PA–28R–201T, PA–28RT–201, PA–28RT–201T, PA–28–201T, PA–28–236, PA–30, PA–39, PA–40, PA–31P, PA–31T, PA–31T1, PA–31T2, PA–31T3, PA–31P–350, PA–32–260, PA–32–300, PA–32S–300, PA–32R–300, PA–32RT–300, PA–32RT–300T, PA–32R–301 (SP), PA–32R–301 (HP), PA–32R–301T, PA–32–301, PA–32–301T, PA–34–200, PA–34–200T, PA–34–220T, PA–42, PA–42–720, PA–42–1000, PA–42–720R, PA–44–180, PA–44–180T, PA–46–310P, PA–46–350P, PA–46–500TP.
(33) Ostmecklenburgische Flugzeugbau GmgH	OMF–100–160.

(34) Piaggio Aero Industries S.p.A	P–180.
(35) Pilatus Aircraft Ltd	PILATUS PC–12, PILATUS PC–12/45, PC–6, PC–6–H1, PC–6–H2, PC–6/350, PC–6/350–H1, PC–6/350–H2, PC–6/A, PC–6/A–H1, PA–6/A–H2, PC–6/B–H2, PC–6/B1–H2, PC–6/B2–H2, PC–6/B2–H4, PC–6/C–H2, PC–6/C1–H2, PC–7.
(36) Prop-Jets, Inc	200, 200A, 200B, 200C, 200D, 400.
(37) Panstwowe Zakladv Lotnicze (PZL)	PZL–104 WILGA 80, PZL–104M WILGA 2000, PZL–WARSZAWA, PZL–KOLIBER 150A, PZL–KOLIBER 160A.
(38) PZL WSK/Mielec Obrsk	PZL M20 03, PZL M26 01.
(39) Raytheon	35–33, 35–A33, 35–B33, 35–C33, 35–C33A, E33, E33A, E33C, F33, F33A, F33C, G33, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 36, A36, A36TC, B36TC, 35, A35, B35, C35, D35, E35, F35, G35, 35R, F90, 76, 200, 200C, 200CT, 200T, A200, B200, B200C, B200CT, B200T, 300, 300LW, B300, B300C, 1900, 1900C, 1900D, A100–1 (U–21J), A200 (C–12A), A200 (C–12C), A200C (UC–12B), A200CT (C–12D), A200CT (FWC–12D), A200CT (RC–12D), A200CT (C–12F), A200CT (RC–12G), A200CT (RC–12H), A200CT (RC–12K), A200CT (RC–12P), A200CT (RC–12Q), B200C (C–12F), B200C (UC–12F), B200C (UC–12M), B200C (C–12R), 1900C (C–12J), 65, A65, A65–8200, 65–80, 65–A80, 65–A80–8800, 65–B80, 65–88, 65–A90, 70, B90, C90, C90A, E90, H90, 65–A90–1, 65–A90–2, 65–A90–3, 65–A90–4, 95, B95, B95A, D95A, E95, 95–55, 95–A55, 95–B55, 95–B55A, 95–B55B (T–42A), 95–C55, 95–C55A, D55, D55A, E55, E55A, 56TC, A56TC, 58, 58A, 58P, 58PA, 58TC, 58TCA, 99, 99A, 99A (FACH), A99, A99A, B99, C99, 100, A100 (U–21F), A100A, A100C, B100, 2000, 3000, 390, 19A, B19, M19A, 23, A23, A23A, A23–19, A23–24, B23, C23, A24, A24R, B24R, C24R, 60, A60, B60, 18D, A18A, A18D, S18D, SA18A, SA18D, 3N, 3NM, 3TM, JRB–6, D18C, D18S, E18S, RC–45J (SNB–5P), E18S–9700, G18S, H18, C–45G, TC–45G, C–45H, TC–45H, TC–45J, UC–45J (SNB–5), 50 (L–23A), B50 (L–23B), C50, D50 (L–23E), D50A, D50B, D50C, D50E–5990, E50 (L–23D, RL–23D), F50, G50, H50, J50, 45 (YT–34), A45 (T–34A or B–45), D45 (T–34B).
(40) Rockwell International Corporation	BC–1A, AT–6 (SNJ–2), AT–6A (SNJ–3), AT–6B, AT–6C (SNJ–4), AT–6D (SNJ–5), AT–6F (SNF–6), SNJ–7, T–6G, NOMAD NA–260.
(41) Short Brothers & Harland Ltd	SC–7 Series 2, SC–7 Series 3.
(42) Slingsby Aviation Ltd	T67M260, T67M260–T3A.
(43) SOCATA—Group Aerospatiale	TB9, TB10, TB20, TB21, TB200, TBM 700, M.S. 760, M.S. 760 A, M.S. 760 B, Rallye 100S, Rallye 150ST, Rallye 150T, Rallye 235E, Rallye 235C, MS 880B, MS 885, MS 894A, MS 893A, MS 892A–150, MS 892E–150, MS 893E, MS 894E, GA–7.
(44) Tiger Aircraft LLC	AA–1, AA–1A, AA–1B, AA–1C, AA–5, AA–5A, AA–5B, AG–5B.

(45) Twin Commander Aircraft Corporation	500, 500–A, 500–B, 500–U, 500–S, 520, 560, 560–A, 560–E, 560F, 680, 680E, 680F, 680FL, 680FL(P), 680T, 680V, 680W, 681, 685, 690, 690A, 690B, 690C, 690D, 695, 695A, 695B, 720, 700.
(46) Univair Aircraft Corporation	108, 108–1, 108–2, 108–3, 108–5.
(47) Vulcanair S.p.A	P68, P68B, P68C, P68C–TC, P68 ‘‘Observer,’’ P68 ‘‘Observer 2,’’ P68TC ‘‘Observer,’’ AP68TP300 ‘‘Spartacus,’’ AP68TP 600 ‘‘Viator’’.
(48) Zenair Ltd.	CH2000.

What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of observations that the GTX 33/33D/330/330D may detect, from other airplanes, the S1 (suppression) interrogating pulse below the minimum trigger level (MTL) and, in some circumstances, not reply. The GTX 33/33D/330/330D should still reply even if it detects S1 interrogating pulses below the MTL. The actions specified in this AD are intended to prevent interrogating aircraft from possibly receiving inaccurate replies, due to suppression, from aircraft equipped with the GTX 33/33D/330/330D Mode S transponders when the pulses are below the minimum trigger level (MTL). Software Upgrade Versions 3.03 and 3.06 correct a TAS, TCAD, and TCAS I system "whisper-shout" problem that could potentially lead to the aircraft not being visible at certain ranges. TCAS II systems are not affected. The inaccurate replies could result in reduced vertical separation.

What Must I Do To Address This Problem?

(e) To address this problem, you must do the following:

Actions	Compliance	Procedures
Install GTX 33/33D/330/330D Software Upgrade for transponders with software version 3.00, 3.01, 3.02, 3.04, 3.05 to at least version 3.06. If version 3.03 is already installed, no further action is required. This version is no longer available from Garmin. This AD does not apply to software versions past 3.05.	Install the software upgrade within 180 daysafter February 23, 2005 (the effective date of this AD), unless already accomplished.	Follow GARMIN Mandatory Software Service Bulletin No.: 0304, Rev B, dated June 12, 2003 accomplished. (Software Upgrade 3.03) or GARMIN Mandatory Software Service Bulletin No.: 0409, dated July 19, 2004 (Software Upgrade 3.06).

May I Request an Alternative Method of Compliance?

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19. Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Wichita Aircraft Certification Office (ACO), FAA. For information on any already approved alternative methods of compliance, contact Roger A. Souter, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: 316-946-4134; facsimile: 316-946-4107; email address: roger.souter@faa.gov.

Does This AD Incorporate Any Material by Reference?

(g) You must do the actions required by this AD following the instructions in GARMIN Mandatory Software Service Bulletin No.: 0304, Rev B, dated June 12, 2003 (Software Upgrade 3.03) or GARMIN Mandatory Software Service Bulletin No.: 0409, dated July 19, 2004 (Software Upgrade 3.06). The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get a copy of this service information, contact GARMIN International Inc. 1200 East 151st Street, Olathe, KS 66062; telephone: 913-397-8200. To review copies of this service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html* or call (202) 741-6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at *http://dms.dot.gov*. The docket number is FAA-2004-18743.

Issued in Kansas City, Missouri, on January 7, 2005.
James E. Jackson,
Acting Manager, Small Airplane Directorate, Aircraft Certification Service.
[FR Doc. 05-832 Filed 1-18-05; 8:45 am]
BILLING CODE 4910-13-P

[Federal Register: February 7, 2006 (Volume 71, Number 25)]
[Rules and Regulations]
[Page 6191-6194]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-20440; Directorate Identifier 2005-CE-05-AD; Amendment 39-14472; AD 2006-03-08]

RIN 2120-AA64

Airworthiness Directives; Aero Advantage ADV200 Series (Part Numbers ADV211CC and ADV212CW) Vacuum Pumps

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA adopts a new airworthiness directive (AD) for all airplanes equipped with Aero Advantage ADV200 series (part numbers ADV211CC and ADV212CW) vacuum pumps installed under supplemental type certificate number SA10126SC, through field approval, or other methods. This AD requires you to remove from service any affected vacuum pump and install an FAA-approved vacuum pump other than the affected part numbers. This AD results from several reports of pump chamber failure. We are issuing this AD to prevent vacuum pump failure or malfunction during instrument flight rules (IFR) flight that could lead to loss of flight instruments critical for flight. The loss of flight instruments could cause pilot disorientation and loss of control of the aircraft.

DATES: This AD becomes effective on March 10, 2006.

As of March 10, 2006, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation.

ADDRESSES: To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at http://dms.dot.gov. The docket number is FAA-2005-20440; Directorate Identifier 2005-CE-05-AD.

FOR FURTHER INFORMATION CONTACT: Peter Hakala, Aerospace Engineer, Special Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0190; telephone: (817) 222-5145; facsimile: (817) 222-5785.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? For the Aero Advantage ADV200 series (part numbers (P/Ns) ADV211CC and ADV212CW) vacuum pumps, FAA has received reports of 14 single-shaft failures and 11 dual-shaft failures in a population of 285 pumps. Nine of the failures occurred with less than 100 hours time-in-service.

In May 2004, Aero Advantage reported to FAA that they had stopped production and sales of the pumps, and they were quitting the business.

The Aero Advantage ADV200 series vacuum pumps are installed under supplemental type certificate number SA10126SC, through field approval, or other methods. The installation of the vacuum pump includes a monitor system, AFMS, and a placard.

What is the potential impact if FAA took no action? Failure or malfunction of the vacuum pump during IFR flight could lead to loss of flight instruments critical for flight. The loss of flight instruments could cause pilot disorientation and loss of control of the aircraft.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to all airplanes equipped with Aero Advantage ADV200 series (part numbers ADV211CC and ADV212CW) vacuum pumps installed under supplemental type certificate number SA10126SC, through field approval, or other methods. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on May 11, 2005 (70 FR 24731). The NPRM proposed to require you to remove any affected vacuum pump and related monitor system, remove the applicable AFMS and placard, and install an FAA-approved vacuum pump other than the affected part numbers.

Comments

Was the public invited to comment? We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

Comment Issue No. 1: Allow the Vacuum Pump Monitoring System To Remain Installed

What is the commenter's concern? Forty commenters recommend that the vacuum pump monitoring system be allowed to remain in their airplanes. Several of the commenters point out that the vacuum pump
warning system can easily be adapted to operate with a replacement FAA-approved vacuum pump. In general, the commenters feel that the vacuum pump monitoring system enhanced safety by letting the pilot know if the vacuum pump was not working.

What is FAA's response to the concern? The FAA agrees with the commenters that the vacuum pump monitoring system enhances safety. However, the pump monitoring system is optional equipment and its installation does not address the unsafe condition. Phoenix Group Service Bulletin Number 05-01, dated November 22, 2005, gives instructions to operators for the hook-up and usage of the vacuum monitoring system now installed.

We will change the final rule to eliminate the mandatory removal of the vacuum pump monitoring system and allow the optional use of the existing monitoring system.

Comment Issue No. 2: Limit the Effectivity of the Final Rule to Airplanes With Installation of the Lycoming Engines (Lycoming) IO-540 Series Engines

What is the commenter's concern? Eleven commenters state that the final rule should only apply to airplanes with installation of the Lycoming IO-540 series reciprocating engines. We infer from the comments received that the commenters conclude that failures of the vacuum pump system occur only on airplanes with installation of the Lycoming IO-540 series engines.

What is FAA's response to the concern? We disagree with the comments that the final rule should only apply to airplanes with installation of the Lycoming IO-540 series engines. The Aero Advantage vacuum pumps, part numbers ADV211CC and ADV212CW, use the same internal components and could be installed on a six-cylinder or a four-cylinder engine. The only difference in the two models is that one runs clockwise, while the other runs counterclockwise. Failures of the Aero Advantage vacuum pumps have been reported in both four-cylinder and six-cylinder engine installations. Therefore, a chance of a vacuum pump failure also exists with the four-cylinder installations.

We are not changing the final rule as a result of these comments.

Comment Issue No. 3: Estimated Work Hours Required for the Removal and Replacement of the Aero Advantage Vacuum Pump

What is the commenter's concern? One commenter, an owner of an airplane with a Continental E185-8 engine installation, comments that 5 work hours should be allotted for the removal of the existing pump and warning system and the replacement with another FAA-approved vacuum pump.

What is FAA's response to the concern? The FAA is not revising the Cost Impact section based on the clarification in the final rule that the current monitoring system is optional equipment and its installation does not cause or contribute to the unsafe condition. Therefore, we believe that our original estimate of three work hours is realistic.

We are not changing the final rule as a result of this comment.

Conclusion

What is FAA's final determination on this issue? We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for the changes discussed above and minor editorial corrections. We have determined that these changes and minor corrections:

–Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
–Do not add any additional burden upon the public than was already proposed in the NPRM.

Docket Information

Where can I go to view the docket information? You may view the AD docket that contains information relating to this subject in person at the DMS Docket Offices between 9 a.m. and 5 p.m. (eastern time), Monday through Friday, except Federal holidays. The Docket Office (telephone 1-800-647-5227) is located on the plaza level of the Department of Transportation NASSIF Building at the street address stated in ADDRESSES. You may also view the AD docket on the Internet at *http://dms.dot.gov*.

Changes to 14 CFR Part 39–Effect on the AD

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Costs of Compliance

How many airplanes does this AD impact? We estimate that this AD affects 285 airplanes in the U.S. registry.

What is the cost impact of this AD on owners/operators of the affected airplanes? We estimate the following costs to do this removal and replacement. We have no way of determining the exact number of airplanes that will need this removal and replacement:

Labor cost	Average parts cost	Total cost per airplane
3 work hours × $65 = $195	$400	$595

Authority for This Rulemaking

What authority does FAA have for issuing this rulemaking action? Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Findings

Will this AD impact various entities? We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

Will this AD involve a significant rule or regulatory action? For the reasons discussed above, I certify that this AD:

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. 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.

We prepared a summary of the costs to comply with this AD (and other information as included in the Regulatory Evaluation) and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2005-20440; Directorate Identifier 2005-CE-05-AD" in your request.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under 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. FAA amends § 39.13 by adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
Federal Aviation
Administration

www.faa.gov/aircraft/safety/alerts/

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2006-03-08 Aero Advantage: Amendment 39-14472; Docket No. FAA-2005-20440; Directorate Identifier 2005-CE-05-AD.

When Does This AD Become Effective?

(a) This AD becomes effective on March 10, 2006.

What Other ADs Are Affected by This Action?

(b) None.

What Airplanes Are Affected by This AD?

(c) This AD affects ADV200 series (part numbers (P/Ns)
ADV211CC and ADV212CW) vacuum pumps installed on, but not limited to, the following aircraft that are certificated in any category. These vacuum pumps can be installed under supplemental type certificate number SA10126SC, through field approval, or other methods:

Make	Model
Alexandria Aircraft, LLC	14–19, 14–19–2, 14–19–3, 17–30, 17–31, 17–31TC, 17–30A, 17–31A, and 17–31ATC.
Alliance Aircraft Group, LLC	H–295 (USAF U10D).
American Champion Aircraft Corp.	7AC, 7ECA, 7GC, 7GCA, 7GCAA, 7GCB, 7GCBC, 7HC, 7KC, 7KCAB, 8GCBC, and 8KCAB.
Cessna Aircraft Company, The	172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, R182, T182, TR182, 172RG, R172E, R172F, R172H, R172J, 152, A152, 210, 210–5 (205), 210–5A (205A), 210A, 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, P210N, T210G, T210H, T210M, T210N, T210R, 185, 185A, 185B, 185C, 185D, 185E, 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 120, 140, 170, 170A, 170B, 177, 177A, 177B, 207, 207A, T207, T207A, 177RG, 206, P206, P206A, P206B, P206C, P206D, P206E, TP206A, TP206B, TP206C, TP206D, TP206E, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, 188, 188A, 188B, A188, A188A, and A188B.

Make	Model
Commander Aircraft Company	112, 112B, 112TC, 114, and 114A.
Dynac Aerospace Corporation	Aero Commander 100.
Global Amphibians, LLC	Lake LA–4–200, Lake Model 250.
Maule Aerospace Technology, Inc.	M–4–210, M–4–220, M–5–180C, M–5–200, M–5–235C, M–6–180, and M–6–235.
Mooney Aircraft Corporation	M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20M, and M22.
Navion Aircraft Company, Ltd.	Navion G and Navion H.
Piper Aircraft, Inc., The New	PA–23, PA–23–160, PA–23–235, PA–23–250 (Navy UO–1), PA–E23–250, PA–24, PA–24–250, PA–24–260, PA–18, PA–18–105 (Special), PA–18–135, PA–18–150, PA–20–115, PA–20–135, PA–22–108, PA–22–135, PA–22–150, PA–22–160, PA–25, PA–25–235, PA–25–260, PA–28–140, PA–28–150, PA–28–151, PA–28–160, PA–28–161, PA–28–180, PA–28–181, PA–28–201T, PA–28–235, PA–28–236, PA–28R–180, PA–28R–200, PA–28R–201, PA–28R–201T, PA–28RT–201, PA–28RT–201T, PA–25, PA–25–235, PA–25–260, J5A–80, J5A (Army L–4F), J5B (Army L–4G), J5C, PA–12, PA–36–285, PA–36–300, PA–36–375, PA–38–112, PA–30, PA–39, PA–40, PA–31, PA–31–300, PA–31–325, PA–31–350, PA–32–260, PA–32–300, PA–32–301, PA–32–301T, PA–32R–300, PA–32R–301 (HP), PA–32R–301T, PA–32RT–300T, PA–31P, and PA–36–300.
Raytheon Aircraft Company	35–33, 35–A33, 35–B33, 35–C33, 35–C33A, 36, A36, A36TC, B36TC, E33, E33A, E33C, F33, F33A, F33C, G33, H35, J35, V35, V35A, V35B, D45 (Military T–34B), 35, 35R, A35, B35, C35, D35, E35, F35, G35, 19A, 23, A23, A23A, A24, A24R, B19, B23, B24R, C23, and C24R.
Rogers, Burl A.	15AC and S15AC.
SOCATA—Groupe Aerospatiale	MS 885, MS 892A–150, MS 892E–150, MS 893A, MS 893E, Rallye 150 ST, Rallye 150 T, TB 10, TB 20, and TB 9
Tiger Aircraft LLC	AA–1, AA–1A, AA–1B, AA–1C, AA–5, AA–5A, and AA–5B.

What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of several reports of pump chamber failure. The actions specified in this AD are intended to prevent the vacuum pump failure or malfunction during instrument flight rules (IFR) flight that could lead to loss of flight instruments critical for flight. The loss of flight instruments could cause pilot disorientation and loss of control of the aircraft.

What Must I Do To Address This Problem?

(e) To address this problem, you must do the following:

Actions	Compliance	Procedures
(1) Remove from service any Areo Advantage ADV200 series (P/Ns ADV211CC and ADV212CW) vacuum pump.	Within 100 hours time-in-service (TIS) or the next 12 calendar months after March 10, 2006 (the effective date of this AD), whichever occurs first, unless already done.	Not Applicable.
(2) Install an FAA-approved vacuum pump that is not an Aero Advantage ADV200 series vacuum pump.	Prior to further flight after removing any Aero Advantage ADV200 series vacuum pump.	Not Applicable.
(3) If you choose not to utilize the Aero Advantage vacuum pump monitoring system per STC SA10126SC, then do the following: (i) Remove the Airplane Flight Manual Supplement (AFMS) for STC SA10126SC and the placard for the vacuum pump monitoring system. (ii) Complete the appropriate logbook entry and Form 337 to show that the airplane is no longer equipped with STC SA10126SC.	Prior to further flight after removing any Aero Advantage ADV200 series vacuum pump.	Not Applicable.
(4) If you choose to utilize the Aero Advantage vacuum pump monitoring system per STC SA10126SC, then do the following: (i) Connect the replacement vacuum pump to the vacuum pump monitoring system. (ii) Make the following notation to the front of the AFMS for STC SA10126SC: "The Aero Advantage vacuum pump was removed to comply with AD 2005–**–**, and this AFMS now gives instructions for the operation of the vacuum pump monitoring system with a replacement vacuum pump." (iii) Attach a copy of the Phoenix Group Service Bulletin No. 05–01, dated November 22, 2005, to the AFMS for STC SA10126SC.	Prior to further flight after removing any Aero Advantage ADV200 series vacuum pump.	Connect the vacuum pump monitoring system with the procedures in Phoenix Group, Service Bulletin No. 05–01, dated November 22, 2005.
(5) Do not install any Aero Advantage ADV200 series (P/Ns ADV211CC and ADV212CW) vacuum pump.	As of March 10, 2006 (the effective date of this AD).	Not Applicable.

May I Request an Alternative Method of Compliance?

(f) The Manager, Special Certification Office, Rotorcraft Directorate, FAA, has the authority to approve alternative methods of compliance for this AD, if requested using the procedures found in 14 CFR 39.19. For information on any already approved alternative methods of compliance, contact

Peter Hakala, Aerospace Engineer, Special Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0190; telephone: (817) 222-5145; facsimile: (817) 222-5785.

May I Get Copies of the Document Referenced in This AD?

(g) If you choose to utilize the vacuum pump monitoring system, you must connect the replacement vacuum pump with the instructions in Phoenix Group, Service Bulletin No. 05-01, dated November 22, 2005. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get a copy of this service information, contact Phoenix Group, 9608 Taxiway Dr., Granbury, TX 76049; e-mail: phoenixgroup2@yahoo.com. To review copies of this service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html* or call (202) 741-6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at http://dms.dot.gov. The docket number is FAA-200520440; Directorate Identifier 2005-CE-05-AD.

Issued in Kansas City, Missouri, on January 26, 2006.
David R. Showers,
Acting Manager, Small Airplane Directorate, Aircraft Certification Service.
[FR Doc. 06-957 Filed 2-6-06; 8:45 am]
BILLING CODE 4910-13-P

[Federal Register: June 6, 2006 (Volume 71, Number 108)]
[Rules and Regulations]
[Page 32427-32434]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-22358; Directorate Identifier 2005-NE-20-AD; Amendment 39-14632; AD 2006-12-07]

RIN 2120-AA64

Airworthiness Directives; Engine Components Inc. (ECi) Reciprocating Engine Cylinder Assemblies

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) for Lycoming Engines (formerly Textron Lycoming) models 320, 360, and 540 series, "Parallel Valve" reciprocating engines, with certain Engine Components Inc. (ECi) cylinder assemblies, part number (P/N) AEL65102 series "Classic Cast", installed. That AD currently requires replacing these ECi cylinder assemblies. This AD requires the same actions, but replaces the "Engine Models" Table 1 and "Engines Installed On, But Not Limited To" Table 2 with corrected tables. Also, this AD corrects the casting part number. This AD results from reports of applicability errors found in AD 2005-26-10. We are issuing this AD to prevent loss of engine power due to cracks in the cylinder assemblies and possible engine failure caused by separation of a cylinder head.

DATES: This AD becomes effective July 11, 2006.

ADDRESSES: You may examine the AD docket on the Internet at *http://dms.dot.gov* or in Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Peter Hakala, Aerospace Engineer, Special Certification Office, FAA, Rotorcraft Directorate, 2601 Meacham Blvd., Fort Worth, TX 76193; telephone (817) 222-5145; fax (817) 222-5785.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to Lycoming Engines models 320, 360, and 540 series, "Parallel Valve" reciprocating engines, with certain ECi cylinder assemblies, P/N AEL65102 series "Classic Cast", installed. We published the proposed AD in the Federal Register on February 24, 2006 (71 FR 9480). That action proposed to require the same actions as AD 2005-26-10, but would

replace the "Engine Models" Table 1 and "Engines Installed On, But Not Limited To" Table 2 with corrected tables. Also, that action proposed to correct the casting part number.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility Docket Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in ADDRESSES. Comments will be available in the AD docket shortly after the DMS receives them.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Request To Change All References to Casting P/N AEL65099

One commenter requests that we change all references to casting P/N AEL65099 to read "casting head markings EC 65099-REV-1" to more accurately describe the actual markings. We agree, and made the reference changes in the AD.

Request To Explain Another Set of Numbers on the Cylinder

The same commenter requests that we explain that the set of numbers appearing on the cylinder below and to the left of the SN, in the form of "12345-67" is not used for determining applicability. We agree, and have added a statement to point this out in the AD.

Update to Related Information

Under paragraph (k), Related Information, we updated the reference to ECi Service Bulletin No. 05-08, Revision 1, dated December 29, 2005, to Revision 2, dated February 28, 2006.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

We estimate that 7,557 ECi cylinder assemblies are installed on Lycoming engines in the United States. We estimate that it will take about two workhours per engine to perform the aircraft inspections of the cylinder assemblies for applicability, and that the average labor rate is $65 per workhour. From the Lycoming Engines "Removal and Installation Labor Allowance Guidebook", dated May 2000, the complete cylinder replacement for a four cylinder engine takes 12 hours, while the complete cylinder replacement for a six cylinder engine takes 16 hours. Required parts will cost about $1,000 per cylinder assembly. Based on these figures, we estimate that the total cost of the AD

to U.S. operators to be $9,152,140. ECi indicated that they might give operators and repair stations credit for returned cylinder assemblies toward the purchase of new ECi cylinder assemblies.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(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.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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. The FAA amends § 39.13 by removing Amendment 39-14431 (70 FR 76385, December 27, 2005), and by adding a new airworthiness directive, Amendment 39-14632, to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

www.faa.gov/aircraft/safety/alerts/

2006-12-07 Engine Components Incorporated (ECi): Amendment 39-14632. Docket No. FAA-2005-22358; Directorate Identifier 2005-NE-20-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective July 11, 2006.

Affected ADs

(b) This AD supersedes 2005-26-10, Amendment 39-14431.

Applicability

(c) This AD applies to Lycoming Engines (formerly Textron Lycoming) models 320, 360, and 540 series, parallel valve, reciprocating engines:

(1) Specified in Table 1 of this AD; and

(2) With ECi cylinder assemblies, part number (P/N) AEL65102 series "Classic Cast", having casting head markings EC 65099-REV-1; and

(3) With serial numbers (SNs) 1 through 9879 (SN may have an "L" prefix for a long reach spark plug), (sold from January 1997 to September 2001) installed.

(4) The set of numbers appearing on the cylinder, below and to the left of the SN, in the form of "12345-67" is not used for determining applicability.

TABLE 1.—ENGINE MODELS

Cylinder head part No.	Installed on engine models
AEL65102–NST04	O–320–A1B, A2B, A2C, A2D, A3A, A3B, B2B, B2C, B2D, B2E, B3B, B3C, C2B, C2C, C3B, C3C, D1A, D1AD, D1B, D1C, D1D, D1F, D2A, D2B, D2C, D2F, D2G, D2H, D2J, D3G, E1A, E1B, E1C, E1F, E1J, E2A, E2B, E2C, E2D, E2E, E2F, E2G, E2H, E3D, E3H.
	IO–320–A1A, A2A, B1A, B1B, B1C, B1D, B1E, B2A, D1A, D1AD, D1B, D1C, E1A, E1B, E2A, E2B.
	AEIO–320–D1B, D2B, E1A, E1B, E2A, E2B.
	AIO–320–A1A, A1B, A2A, A2B, B1B, C1B.
	LIO–320–B1A.
AEL65102–NST05	IO–320–C1A, C1B, C1F, F1A.
	LIO–320–C1A.
AEL65102–NST06	O–320–A1A, A2A, A2B, A2C, A3A, A3B, A3C, E1A, E1B, E2A, E2C, (also, an O–320 model with no suffix). IO–320–A1A, A2A.

Cylinder head part No.	Installed on engine models
AEL65102–NST07	IO–320–B1A, B1B.
	LIO–320–B1A.
AEL65102–NST08	O–320–B1A, B1B, B2A, B2B, B3A, B3B, B3C, C1A, C1B, C2A, C2B, C3A, C3B, C3C, D1A, D1B, D2A, D2B, D2C.
AEL65102–NST10	O–360–A1A, A1C, A1D, A2A, A2E, A3A, A3D, A4A, B1A, B1B, B2A, B2B, C1A, C1C, C1G, C2A, C2B, C2C, C2D, D1A, D2A, D2B.
	IO–360–B1A, B1B, B1C.
	HO–360–A1A, B1A, B1B.
	HIO–360–B1A, B1B.
	AEIO–360–B1B.
	O–540–A1A, A1A5, A1B5, A1C5, A1D, A1D5, A2B, A3D5, A4A5, A4B5, A4C5, A4D5, B1A5, B1B5, B1D5, B2A5, B2B5, B2C5, B2C5D, B4A5, B4B5, B4B5D, D1A5, E1A, E4A5, E4B5, E4C5, F1A5, F1B5, G1A5, G2A5.
	IO–540–C1B5, C1C5, C2C, C4B5, C4B5D, C4C5, D4A5, D4B5, N1A5, N1A5D.
AEL65102–NST12	O–360–A1A, A1AD, A1D, A1F, A1F6, A1F6D, A1G, A1G6, A1G6D, A1H, A1H6, A1J, A1LD, A1P, A2A, A2D, A2F, A2G, A2H, A3A, A3AD, A3D, A4A, A4AD, A4D, A4G, A4J, A4JD, A4K, A4M, A4N, A4P, A5AD, B1A, B2C, C1A, C1C, C1E, C1F, C1G, C2A, C2B, C2C, C2D, C2E, C4F, C4P, D2A, F1A6, G1A6.
	HO–360–C1A.
	LO–360–A1G6D, A1H6.
	HIO–360–B1A, B1B, G1A.
	LTO–360–A1A6D.
	TO–360–A1A6D.
	IO–360–B1B, B1BD, B1D, B1E, B1F, B1F6, B1G6, B2E, B2F, B2F6, B4A, E1A, L2A, M1A, M1B.
	AEIO–360–B1B, B1D, B1E, B1F, B1F6, B1G6, B1H, B2F, B2F6, B4A, H1A, H1B.
	O–540–A4D5, B2B5, B2C5, B2C5D, B4B5, B4B5D, E4A5, E4B5, E4B5D, E4C5, G1A5, G1A5D, G2A5, H1A5, H1A5D, H1B5, H1B5D, H2A5, H2A5D, H2B5D.
	IO–540–C4B5, C4B5D, C4D5, C4D5D, D4A5, D4B5, D4C5, N1A5, N1A5D, T4A5D, T4B5, T4B5D, T4C5D, V4A5, V4A5D.
	AEIO–540–D4A5, D4B5, D4C5, D4D5.
AEL65102–NST26	IO–540–J4A5, R1A5.
	TIO–540–C1A, E1A, G1A, H1A.
AEL65102–NST38	IO–360–F1A.
	TIO–540–AA1AD, AB1AD, AB1BD, AF1A, AG1A, AK1A, C1A, C1AD, K1AD.
	LTIO–540–K1AD.
AEL65102–NST43	O–360–J2A.
	O–540–F1B5, J1A5D, J1B5D, J1C5D, J1D5D, J2A5D, J2B5D, J2C5D, J2D5D, J3A5, J3A5D, J3C5D.
	IO–540–AB1A5, W1A5, W1A5D, W3A5D.
AEL65102–NST44	O–540–L3C5D.

For information, the subject engines are installed on, but not limited to, the aircraft listed in the following Table 2:

TABLE 2.—ENGINES INSTALLED ON, BUT NOT LIMITED TO	
O–320–A1A	Piper Aircraft: Tri-Pacer (PA–22 "150", PA–22S "150"), Apache (PA–23), Pawnee (PA–25).
	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B).
	Mooney Aircraft: Mark (20A).
	Dinfia: Ranquel (1A–46).
	Simmering-Graz Pauker: Flamingo (SGP–M–222).
	Aviamilano: Scricciolo (P–19).
	Vos Helicopter Co.: Spring Bok.
O–320–A1B	Piper Aircraft: Tri-Pacer (PA–22 "150", PA–22S "150"), Apache (PA–23).
	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B).
	S.O.C.A.T.A.: Horizon (Gardan).
O–320–A2A	Piper Aircraft: Tri-Pacer (PA–22 "150", PA–22S "150"), Agriculture (PA–18A "150") Super Cub (PA–18 "150"), Caribbean (PA–22 "150"), Pawnee (PA–25).
	Intermountain Mfg. Co.: Call Air Texas (A–5, A–5T).
	Lake Aircraft: Colonial (C–1).
	Rawdon Bros.: Rawdon (T–1, T–15, T–15D).
	Shinn Engineering: Shinn (2150–A).
	Dinfia: Ranquel (1A–46).
	Neiva: (1PD–5802).
	Sud: Gardan-Horizon (GY–80).
	LaVerda: Falco (F8L Series II, America).
	Malmo: Vipan (MF1–10).
	Kingsford Smith: Autocrat (SCRM–153).
	Aero Commander: 100.
O–320–A2B	Piper Aircraft: Tri-Pacer (PA–22 "150", PA–22S "150"), Cherokee (PA–28 "150"), Super Cub (PA–18 "150").
	Champion Aircraft: Challenger (7GCA, 7GCB, 7KC), Citabria (7GCAA, 7GCRC), Agriculture (7GCBA).
	Beagle: Pup (150).
	Artic: Interstate S1B2.
	Robinson: R–22.
	Varga: Kachina 2150A.
O–320–A2C	Robinson: R–22.
	Cicare: Cicare AG.
	Bellanca Aircraft: Citabria 150 (7GCAA), Citabria 150S (7GCBC).
O–320–A2D	Piper Aircraft: Apache (PA–23).
O–320–A3A	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B).
	Corben-Fettes: Globe Special (Globe GC–1B).
O–320–A3B	Piper Aircraft: Apache (PA–23).
	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B).
	Teal II: TSC (1A2).
O–320–B1A	Piper Aircraft: Apache (PA–23 "160").
	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B).
	Malmo: Vipan (MF1–10).
O–320–B1B	Piper Aircraft: Apache (PA–23 "160").
	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B)

O–320–B2A	Piper Aircraft: Tri-Pacer (PA–22 "160", PA–22S "160").
O–320–B2B	Piper Aircraft: Tri-Pacer (PA–22 "160", PA–22S "160").
	Beagle: Airedale (D5–160).
	Fuji-Heavy Industries: Fuji (F–200).
	Uirapuru: Aerotec 122.
O–320–B2C	Robinson: R–22.
O–320–B2D	Maule: MX–7–160.
O–320–B2E	Lycon.
O–320–B3A	Piper Aircraft: Apache (PA–23 "160").
	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B).
O–320–B3B	Piper Aircraft: Apache (PA–23 "160").
	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B).
	Sud: Gardan (GY80–160).
O–320–C1A	Piper Aircraft: Apache (PA–23 "160").
	Riley Aircraft: Rayjay (Apache).
O–320–C1B	Piper Aircraft: Apache (PA–23 "160").
O–320–C3A	Piper Aircraft: Apache (PA–23 "160").
O–320–C3B	Piper Aircraft: Apache (PA–23 "160").
O–320–D1A	Sud: Gardan (GY–80).
	Gyroflug: Speed Cancard.
	Grob: G115.
O–320–D1F	Slingsby: T67 Firefly.
O–320–D2A	Piper Aircraft: Cherokee (PA–28S "160").
	Robin: Major (DR400–140B), Chevalier (DR–360), (R–3140).
	S.O.C.A.T.A.: Tampico TB9.
	Slingsby: T67C Firefly.
	Daetwyler: MD–3–160.
	Nash Aircraft Ltd.: Petrel.
	Aviolight: P66D Delta.
	General Avia: Pinguino.
O–320–D2B	Beech Aircraft: Musketeer (M–23).
	Piper Aircraft: Cherokee (PA–28 "160").
O–320–D2J	Cessna Aircraft: Skyhawk 172.
O–320–D3G	Piper Aircraft: Warrior II, Cadet (PA–28–161).
O–320–E1A	Grob: G115.
O–320–E1C	M.B.B. (Messerschmitt-Boelkow-Blohm): Monsun (BO–209–B).
O–320–E1F	M.B.B.: Monsun (BO–209–B).
O–320–E2A	Piper Aircraft: Cherokee (PA–28 "140", PA–28 "150").
	Robin: Major (DR–340), Sitar, Bagheera (GY–100–135).
	S.O.C.A.T.A.: Super Rallye (MS–886), Rallye Commodore (MS–892).
	Siai-Marchetti: (S–202).
	F.F.A.: Bravo (AS–202/15).
	Partenavia: Oscar (P66B), Bucker (131 APM).
	Aeromot: Paulistina P–56.
	Pezetel: Koliber 150.
O–320–E2C	Beech Aircraft: Musketeer III (M–23III).
	M.B.B.: Monsun (BO–209–B).
O–320–E2D	Cessna Aircraft: Cardinal (172–I, 177).
O–320–E2F	M.B.B.: Monsun (BO–209–B), Wassmer Pacific (WA–51).
O–320–E2G	American Aviation Corp.: Traveler.

O–320–E3D	Piper Aircraft: Cherokee (140).
	Beech Aircraft: Sport.
IO–320–B2A	Piper Aircraft: Twin Comanche (PA–30).
IO–320–B1C	Hi. Shear: Wing.
IO–320–B1D	Ted Smith Aircraft: Aerostar.
IO–320–C1A	Piper Aircraft: Twin Comanche (PA–30 Turbo).
IO–320–D1A	M.B.B.: Monsun (BO–209–C).
IO–320–D1B	M.B.B.: Monsun (BO–209–C).
IO–320–E1A	M.B.B.: Monsun (BO–209–C).
IO–320–E1B	Bellanca Aircraft.
IO–320–E2A	Champion Aircraft: Citabria.
IO–320–E2B	Bellanca Aircraft.
IO–320–F1A	CAAR Engineering: Carr Midget.
LIO–320–B1A	Piper Aircraft: Twin Comanche (PA–39).
LIO–320–C1A	Piper Aircraft: Twin Comanche (PA–39).
AIO–320–B1B	M.B.B.: Monsun (BO–209–C).
AEIO–320–D1B	Slingsby: T67M Firefly.
AEIO–320–D2B	Hundustan Aeronautics Ltd.: HT–2.
AEIO–320–E1A	Bellanca Aircraft.
	Champion Aircraft.
AEIO–320–E1B	Bellanca Aircraft.
	Champion Aircraft: Decathalon (8KCAB–CS).
AEIO–320–E2B	Bellanca Aircraft.
	Champion Aircraft: Decathalon (8KCAB).
O–320–A1A	Riley Aircraft: Riley Twin.
O–360–A1A	Beech Aircraft: Travel Air (95, B–95).
	Piper Aircraft: Comanche (PA–24).
	Intermountain Mfg. Co.: Call Air (A–6).
	Lake Aircraft: Colonial (C–2, LA–4, 4A or 4P).
	Doyn Aircraft: Doyn-Cessna (170B, 172, 172A, 172B).
	Mooney Aircraft: Mark "20B"(M–20B).
	Earl Horton: Pawnee (Piper PA–25).
	Dinfia: Ranquel (1A–51).
	Neiva: (1PD–5901).
	Regente: (N–591).
	Wassmer: Super 4 (WA–50A), Sancy (WA–40), Baladou (WA–40), Pariou (WA–40).
	Sud: Gardan (GY–180).
	Bolkow: (207).
	Partenavia: Oscar (P–66).
	Siai-Marchetti: (S–205).
	Procaer: Picchio (F–15–A).
	S.A.A.B.: Safir (91–D).
	Malmo: Vipan (MF–10B).
	Aero Boero: AB–180.
	Beagle: Airedale (A–109).
	DeHavilland: Drover (DHA–3MK3).
	Kingsford-Smith: Bushmaster (J5–6).
	Aero Engine Service Ltd.: Victa (R–2).
O–360–A1AD	S.O.C.A.T.A.: Tabago TB–10.

O–360–A1D	Piper Aircraft: Comanche (PA–24).
	Lake Aircraft: Colonial (LA–4, 4A or 4P).
	Doyn Aircraft: Doyn-Beech (Beech 95).
	Mooney Aircraft: Master "21"(M–20E), Mark "20B", "20D", (M20B, M20C), Mooney Statesman (M–20G).
	Dinfia: Querandi (1A–45).
	Wassmer: (WA–50).
	Malmo: Vipan (MF1–10).
	Cessna Aircraft: Skyhawk.
	Doyn Aircraft: Doyn-Piper (PA–23 "160").
O–360–A1F6	Cessna Aircraft: Cardinal.
O–360–A1F6D	Cessna Aircraft: Cardinal 177.
	Teal III: TSC (1A3).
O–360–A1G6	Aero Commander.
O–360–A1G6D	Beech Aircraft: Duchess 76.
O–360–A1H6	Piper Aircraft: Seminole (PA–44).
O–360–A1LD	Wassmer: Europa WA–52.
O–360–A1P	Aviat: Husky.
O–360–A2A	Center Est Aeronautique: Regente (DR–253).
	S.O.C.A.T.A.: Rallye Commodore (MS–893).
	Societe Aeronautique Normande: Mousquetaire (D–140).
	Bolkow: Klemm (K1–107C).
	Partenavia: Oscar (P–66).
	Beagle: Husky (D5–180) (J1–U).
O–360–A2D	Piper Aircraft: Comanche (PA–24), Cherokee "C"(PA–28 "180").
	Mooney Aircraft: Master "21"(M–20D), Mark "21"(M–20E).
O–360–A2E	Std. Helicopter.
O–360–A2F	Aero Commander: Lark (100).
	Cessna Aircraft: Cardinal.
O–360–A2G	Beech Aircraft: Sport.
O–360–A3A	C.A.A.R.P.S.A.N.: (M–23III).
	Societe Aeronautique Normande: Jodel (D–140C).
	Robin: Regent (DR400/180), Remorqueur (DR400/180R). R–3170.
	S.O.C.A.T.A.: Rallye 180GT, Sportavia Sportsman (RS–180).
	Norman Aeroplace Co.: NAC–1 Freelance.
	Nash Aircraft Ltd.: Petrel.
O–360–A3AD	S.O.C.A.T.A.: TB–10.
	Robin: Aiglon (R–1180T).
O–360–A4A	Piper Aircraft: Cherokee "D"(PA–28 "180").
O–360–A4D	Varga: Kachina.
O–360–A4G	Beech Aircraft: Musketeer Custom III.
O–360–A4K	Grumman American: Tiger.
	Beech Aircraft: Sundowner 180.
O–360–A4M	Piper Aircraft: Archer II (PA–28 "18").
	Valmet: PIK–23.
O–360–A4N	Cessna Aircraft: 172 (Optional).
O–360–A4P	Penn Yan: Super Cub Conversion.
O–360–A5AD	C. Itoh and Co.: Fuji FA–200.
O–360–B2C	Seabird Aviation: SB7L.
O–360–C1A	Intermountain Mfg. Co.: Call Air (A–6).

O–360–C1E	Bellanca Aircraft: Scout (8GCBC–CS).
O–360–C1F	Maule: Star Rocket MX–7–180.
O–360–C1G	Christen: Husky (A–1).
O–360–C2B	Hughes Tool Co.: (269A).
O–360–C2D	Hughes Tool Co.: (269A).
O–360–C2E	Hughes Tool Co.: (YHO–2HU) Military.
	Bellanca Aircraft: Scout (8GCBC FP).
O–360–C4F	Maule: MX–7–180A.
O–360–C4P	Penn Yan: Super Cub Conversion.
O–360–F1A6	Cessna Aircraft: Cutlass RG.
O–360–J2A	Robinson: R22.
IO–360–B1A	Beech Aircraft: Travel-Air (B–95A).
	Doyn Aircraft: Doyn-Piper (PA–23 "200").
IO–360–B1B	Beech Aircraft: Travel-Air (B–95B).
	Doyn Aircraft: Doyn-Piper (PA–23 "200").
	Fuji: (FA–200).
IO–360–B1D	United Consultants: See-Bee.
IO–360–B1E	Piper Aircraft: Arrow (PA–28 "180R").
IO–360–B1F	Utva: 75.
IO–360–B2E	C.A.A.R.P. C.A.P. (10).
IO–360–B1F6	Great Lakes: Trainer.
IO–360–B1G6	American Blimp: Spector 42.
IO–360–B2F6	Great Lakes: Trainer.
LO–360–A1G6D	Beech Aircraft: Duchess.
LO–360–A1H6	Piper Aircraft: Seminole (PA–44).
IO–360–E1A	T.R. Smith Aircraft: Aerostar.
IO–360–L2A	Cessna Aircraft: Skyhawk C–172.
IO–360–M1A	Diamond Aircraft: DA–40.
IO–360–M1B	Vans Aircraft: RV6, RV7, RV8
	Lancair: 360.
AEIO–360–B1F	F.F.A.: Bravo (200).
	Grob: G115/Sport-Acro.
AEIO–360–B1G6	Great Lakes.
AEIO–360–B2F	Mundry: CAP–10.
AEIO–360–B4A	Pitts: S–1S.
AEIO–360–H1A	Bellanca Aircraft: Super Decathalon (8KCAB–180).
AEIO–360–H1B	American Champion: Super Decathalon.
VO–360–A1A	Brantly Hynes Helicopter: (B–2).
VO–360–A1B	Brantly Hynes Helicopter: (B–2, B2–A). Military (YHO–3BR).
VO–360–B1A	Brantly Hynes Helicopter: (B–2, B2–A).
IVO–360–A1A	Brantly Hynes Helicopter: (B2–B).
HO–360–B1A	Hughes Tool Co.: (269A).
HO–360–B1B	Hughes Tool Co.: (269A).
HO–360–C1A	Schweizer: (300C).
HIO–360–B1A	Hughes Tool Co.: Military (269–A–1) (TH–55A).
HIO–360–B1B	Hughes Tool Co.: (269A).
HIO–360–G1A	Schweizer: (CB).
O–540–A1A	Rhein-Flugzeugbau: (RF–1).

O–540–A1A5	Piper Aircraft: Comanche (PA–24 "180").
	Helio: Military (H–250).
	Yoeman Aviation: (YA–1).
O–540–A1B5	Piper Aircraft: Aztec (PA–23 "250"), Comanche (PA–24 "250").
O–540–A1C5	Piper Aircraft: Comanche (PA–24 "250").
O–540–A1D	Found Bros.: (FBA–2C).
	Dornier: (DO–28–B1).
O–540–A1D5	Piper Aircraft: Aztec (PA–23 "250"), Comanche (PA–24 "250"), Military Aztec (U–11A).
	Dornier: (DO–28).
O–540–A2B	Aero Commander: (500).
	Mid-States Mfg. Co.: Twin Courier (H–500), (U–5).
O–540–A3D5	Piper Aircraft: Navy Aztec (PA–23 "250").
O–540–B1A5	Piper Aircraft: Apache (PA–23 "235").
O–540–B1B5	Piper Aircraft: Comanche (PA–24 "250").
	Doyn Aircraft: Doyn-Piper (PA–24 "250").
O–540–B1D5	Wassmer: (WA–421).
O–540–B2B5	Piper Aircraft: Pawnee (PA–25 "235"), Cherokee (PA –28 "235"), Aztec (PA–23 "235").
	Intermountain Mfg. Co.: Call Air (A–9).
	Rawdon Bros.: Rawdon (T–1).
	S.O.C.A.T.A.: Rallye 235CA.
O–540–B2C5	Piper Aircraft: Pawnee (PA–25 "235").
O–540–B4B5	Piper Aircraft: Cherokee (PA–28 "235").
	Embraer: Corioca (EMB–710).
	S.O.C.A.T.A.: Rallye 235GT, Rallye 235C
	Maule: Star Rocket (MX–7–235), Super Rocket (M–6–235), Super Std. Rocket (M–7–235).
O–540–E4A5	Piper Aircraft: Comanche (PA–24 "260").
	Aviamilano: Flamingo (F–250).
	Siai-Marchetti: (SF–260), (SF–208).
O–540–E4B5	Britten-Norman: (BN–2).
	Piper Aircraft: Cherokee Six (PA–32 "260").
O–540–E4C5	Pilatus Britten-Norman: Islander (BN–2A–26), Islander (BN–2A–27), Islander II (BN–2B–26), Islander (BN–2A–21),Trislander (BN–2A–Mark III–2).
O–540–F1B5	Omega Aircraft: (BS–12D1).
	Robinson: (R–44).
O–540–G1A5	Piper Aircraft: Pawnee (PA–25 "260").
O–540–H1B5D	Aero Boero: 260.
O–540–H2A5	Embraer: Impanema "AG".
	Gippsland: GA–200.
O–540–H2B5D	Aero Boero: 260.
O–540–J1A5D	Maule: Star Rocket (MX–7–235), Super Rocket (M–6–235), Super Std. Rocket (M–7–235).
O–540–J3A5	Robin: R–3000/235.
O–540–J3A5D	Piper Aircraft: Dakota (PA–28–236).
O–540–J3C5D	Cessna Aircraft: Skylane RG.
O–540–L3C5D	Cessna Aircraft: TR–182, Turbo Skylane RG.
O–540–C1B5	Piper Aircraft: Aztec B (PA–23 "250"), Comanche (PA–24 "250").
IO–540–C1C5	Riley Aircraft: Turbo-Rocket.

IO–540–C4B5	Piper Aircraft: Aztec C (PA–23 "250"), Aztec F.
	Wassmer: (WA–421).
	Avions Pierre Robin: (HR100/250).
	Bellanca Aircraft: Aries T–250.
	Aerofab: Renegade 250.
IO–540–C4D5	S.O.C.A.T.A.: TB–20.
IO–540–C4D5D	S.O.C.A.T.A.: Trinidad TB–20.
IO–540–D4A5	Piper Aircraft: Comanche (PA–24 "260").
	Siai-Marchetti: (SF–260).
IO–540–D4B5	Cerva: (CE–43 Guepard).
IO–540–J4A5	Piper Aircraft: Aztec (PA–23 "250").
IO–540–R1A5	Piper Aircraft: Comanche (PA–24).
IO–540–T4A5D	General Aviation: Model 114.
IO–540–T4B5	Commander: 114B.
IO–540–T4B5D	Rockwell: 114.
IO–540–T4C5D	Lake Aircraft: Seawolf.
IO–540–V4A5	Maule: MT–7–260, M–7–260.
	Aircraft Manufacturing Factory.
IO–540–V4A5D	Brooklands: Scoutmaster.
IO–540–W1A5	Maule: MX–7–235, MT–7–235, M7–235.
IO–540–W1A5D	Maule: Star Rocket (MX–7–235), Super Rocket (M–6–235), Super Std. Rocket (M–7–235).
IO–540–W3A5D	Schweizer: Power Glider.
AEIO–540–D4A5	Christen: Pitts (S–2S), (S–2B).
	Siai-Marchetti: SF–260.
	H.A.L.: HPT–32.
	Slingsby: Firefly T3A.
AEIO–540–D4B5	Moravan: Zlin-50L.
	H.A.L.: HPT–32.
AEIO–540–D4D5	Burkhart Grob: Grob G, 115T Aero.
TIO–540–C1A	Piper Aircraft: Turbo Aztec (PA–23–250).
TIO–540–K1AD	Piper Aircraft.
TIO–540–AA1AD	Aerofab Inc.: Turbo Renegade (270).
TIO–540–AB1AD	S.O.C.A.T.A.: Trinidad TC TB–21.
TIO–540–AB1BD	Schweizer.
TIO–540–AF1A	Mooney Aircraft: "TLS"M20M.
TIO–540–AG1A	Commander Aircraft: 114TC.
TIO–540–AK1A	Cessna Aircraft: Turbo Skylane T182T.
LTIO–540–K1AD	Piper Aircraft.

Unsafe Condition

(d) This AD results from reports of applicability errors found in AD 2005-26-10. We are issuing this AD to prevent loss of engine power due to cracks in the cylinder assemblies and possible engine failure caused by separation of a cylinder head.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Engines Not Overhauled or Repaired Since New

(f) If your engine has not been overhauled or had any major repair since new, no further action is required.

Engines Overhauled or Repaired Since New

(g) If your engine was overhauled or repaired since new, do the following:

(1) Determine if ECi cylinder assemblies, P/N AEL65102 series "Classic Cast", having casting head markings EC 65099-REV-1 and SNs 1 through 9879 (SN may have an "L" prefix for a long reach spark plug) are installed on your engine, as follows:

(i) Inspect the engine log books and maintenance records for reference to the subject ECi cylinder assemblies.

(ii) If the engine log books and maintenance records did not record the P/N and SN of the cylinder assemblies, visually inspect the cylinder assemblies and verify the P/N and SN of the cylinder assemblies.

(2) If the cylinder assemblies are not ECi, P/N AEL65102 series "Classic Cast", having casting head markings EC 65099-REV-1, no further action is required.

(3) If any cylinder assembly is an ECi P/N AEL65102 series "Classic Cast", having casting head markings EC 65099-REV-1 and a SN 1 through 9879 (SN may have an "L" prefix for a long reach spark plug), do the following:

(i) If the cylinder assembly has fewer than 800 operating hours-in-service (HIS) on the effective date of this AD, replace the cylinder assembly at no later than 800 operating HIS. No action is required until the operating HIS reaches 800 hours.

(ii) If the cylinder assembly has 800 operating HIS or more on the effective date of this AD, replace the cylinder assembly within 60 operating HIS after the effective date of this AD.

Definition of a Replacement Cylinder Assembly

(h) For the purpose of this AD, a replacement cylinder assembly is defined as follows:

(1) A serviceable cylinder assembly made by Lycoming Engines.

(2) A serviceable FAA-approved, Parts Manufacturer Approval cylinder assembly from another manufacturer.

(3) A serviceable ECi cylinder assembly, P/N AEL65102 series, "Titan", having casting P/N AEL85099.

(4) A serviceable ECi cylinder assembly, P/N AEL65102 series "Classic Cast", having casting head markings EC 65099-REV-1, that has a SN 9880 or higher (SN may have an "L" prefix for a long reach spark plug).

Prohibition of Cylinder Assemblies, P/N AEL65102 Series ''Classic Cast'', Having Casting Head Markings EC 65099-REV-1 and SNs 1 Through 9879

(i) After the effective date of this AD, do not install any ECi cylinder assembly, P/N AEL65102, having casting head markings EC 65099-REV-1 that has a SN 1 through 9879 (SN may have an "L" prefix for a long reach spark plug), onto any engine.

Alternative Methods of Compliance

(j) The Manager, Special Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(k) ECi Service Bulletin No. 05-08, Revision 2, dated February 28, 2006, pertains to the subject of this AD.

Issued in Burlington, Massachusetts, on May 31, 2006.
Thomas A. Boudreau,
Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 06-5127 Filed 6-5-06; 8:45 am]
BILLING CODE 4910-13-P

[Federal Register Volume 80, Number 235 (Tuesday, December 8, 2015)]
[Rules and Regulations]
[Pages 76201-76205]
From the Federal Register Online via the Government Publishing Office [www.gpo.gov]
[FR Doc No: 2015-30633]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0627; Directorate Identifier 2015-CE-002-AD; Amendment 39-18337; AD 2015-24-05]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Piper Aircraft, Inc. Models PA-23-250, PA-24-250, PA-24-260, PA-24-400, PA-30, PA-31, PA-31-300, PA-31P, PA-39, and PA-E23-250 airplanes. This AD was prompted by an accident caused by fuel starvation where the shape of the wing fuel tanks and fuel below a certain level in that tank may have allowed the fuel to move away from the tank outlet during certain maneuvers. This AD requires installing a fuel system management placard on the airplane instrument panel and adding text to the Limitations Section of the pilot's operating handbook (POH)/airplane flight manual (AFM). We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD is effective January 12, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of January 12, 2016.

ADDRESSES: For service information identified in this AD, contact Piper Aircraft, Inc., Customer Service, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (877) 879-0275; fax: none; email: customer.service@piper.com; Internet: www.piper.com. You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2015-0627; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket

Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Ansel James, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; telephone: (404) 474-5576; fax: (404) 474-5606; email: ansel.james@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Piper Aircraft, Inc. Models PA-23-250, PA-24-250, PA-24-260, PA-24-400, PA-30, PA-31, PA-31-300, PA-31P, PA-39, and PA-E23-250 airplanes. The NPRM published in the Federal Register on March 23, 2015 (80 FR 15171). The NPRM was prompted by an accident caused by fuel starvation where the shape of the wing fuel tanks and fuel below a certain level in that tank may have allowed the fuel to move away from the tank outlet during certain maneuvers. The NPRM proposed to require installing a fuel system management placard on the airplane instrument panel and adding text to the Limitations Section of the pilot's operating handbook (POH)/airplane flight manual (AFM). We are issuing this AD to correct the unsafe condition on these products.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (80 FR 15171, March 23, 2015) and the FAA's response to each comment.

Request for Local Fabrication of the Required Warning Placard

Edward Rognerud and an anonymous commenter requested that the AD be written to allow for the local fabrication of the required warning placard as long as it contains the exact warning text mandated by the service information and is printed in 8-point type. The anonymous commenter also requested that the AD allow for the installation of the warning placard onto the instrument panel at any location that does not obscure existing controls, instruments, or markings and is in clear view of the pilot.

The commenters requested this change as a means of controlling the cost of compliance without compromising safety.

We agree with the commenters that local fabrication of the warning placard may be necessary if the shape of the placard available from Piper Aircraft, Inc. does not fit on the instrument panel. The service information contains the exact text, font size, and installation restrictions necessary for the local fabrication of a compliant placard. Paragraph (g)(2) of the proposed AD included instructions to fabricate and install the placard. This implied that the placard can only be fabricated if the placard available from Piper Aircraft, Inc. does not fit on the instrument panel.

We revised the AD as requested to allow for the fabrication of the placard following the instructions in the service information under any condition.

Request for Local Fabrication of the Supplemental Page for Updating of the Aircraft's POH/AFM

Edward Rognerud and an anonymous commenter requested the updating of the airplane's POH/AFM by inserting a locally fabricated supplemental page into the Limitation Section as an

alternative to inserting a supplemental page bought from Piper Aircraft, Inc. We infer the commenter's meaning to be that a locally fabricated supplemental page will meet the requirements of the AD.

The commenters requested this change as a means of controlling the cost of compliance without compromising safety.

We agree with the commenters that compliance can be shown with paragraph (h)(3) of the AD by inserting into the Limitations Section of the POH/AFM a locally made supplemental page containing the applicable placard text or a supplemental page procured from Piper Aircraft, Inc.

We revised the AD as requested.

Request Private Pilot Certificate as a Minimum Credential for AD Signoff in Logbook

An anonymous commenter requested a private pilot certificate as a minimum credential for AD signoff in airplane's logbook. The anonymous commenter requested this change to control cost of compliance without compromising safety.

We agree with the anonymous commenter. We determined that the installation of a purchased or locally fabricated supplemental page into the POH/AFM can be done by the owner/operator with at least a private pilot certificate. We have also determined that the local fabrication and installation of the placard following the instructions in the service bulletin can be done by the owner/operator with at least a private pilot certificate.

We revised the AD as requested.

Request Withdrawal of the NPRM

Jeffrey Aryan commented that the proposed AD is not appropriate. The commenter also wrote that the proposed AD would add a more cumbersome display to an already crowded flight deck. We infer that the commenter requested withdrawal of the NPRM.

We disagree. The FAA evaluated all relevant information and determined that the addition of the placard to the instrument panel and the supplemental pages to the Limitations Section of the POH/AFM will address the unsafe condition identified in the AD.

We made no change to the AD as a result of this comment.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 15171, March 23, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 15171, March 23, 2015).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information Under 1 CFR Part 51

We reviewed Piper Aircraft, Inc. Service Bulletin No. 1266, dated December 16, 2014. Piper Aircraft, Inc. Service Bulletin No. 1266, dated December 16, 2014, calls for/describes actions for, when necessary, installing the correct fuel warning placard on the instrument panel and adding correct text of that fuel warning placard in the Limitations Section of the POH/AFM. This information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

Costs of Compliance

We estimate that this proposed AD affects 3,000 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection to determine if placard, if installed, and Limitations Section of the POH/AFM are compliant with Piper Aircraft, Inc. Service Bulletin No. 1266, dated December 16, 2014	.5 work-hour × $85 per hour = $42.50	Not Applicable	$42.50	$127,500

We estimate the following costs to do any necessary placard/POH/AFM order and installation that would be required based on the results of the inspection. We have no way of determining the number of airplanes that might need any necessary placard/POH/AFM order and installation:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Order and install replacement placard	1 work-hour × $85 per hour = $85	$40	$125
Order updated POH/AFM and install updated pages	.5 work-hour × $85 per hour = $42.50	300	342.50

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(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),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2015-24-05 Piper Aircraft, Inc. Airplanes: Amendment 39-18337; Docket No. FAA-2015-0627; Directorate Identifier 2015-CE-002-AD.

(a) Effective Date

This AD is effective January 12, 2016.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the following Piper Aircraft, Inc. airplanes, certificated in any category:

Model	Serial No.
PA-23-250 (Six Place) Aztec “B”	27-2322 through 27-2504, FUEL INJECTED ONLY
PA-23-250 (Six Place) and PA-E23-250 (Six Place) Aztec “C,” “D” and “E”	27-2505 through 27-4866, 27-7304917 through 27-7405476
PA-24-250 Comanche	24-2563, 24-2844 through 24-3641, 24-3643 through 24-3687, FUEL INJECTED ONLY
PA-24-260 Comanche	24-3642, 24-4000 through 24-4299, 24-4300 through 24-4782, 24-4784 through 24-4803, FUEL INJECTED ONLY
PA-24-260 Comanche “C”	24-4783, 24-4804 through 24-5047
PA-24-400 Comanche	26-1 through 26-148
PA-30 Twin Comanche	30-1 through 30-2000
PA-31 and PA-31-300 Navajo	31-2 to 31-861, 31-7300901 through 31-7300923, 31-7300925, 31-7300927, 31-7300929, 31-7300931
PA-31P Navajo	31P-1 through 31P-80, 31P-7300110 through 31P-7300115
PA-39 Twin Comanche C/R	39-1 through 39-155

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 1130, PLACARDS AND MARKINGS; Interior Placards.

(e) Unsafe Condition

This AD was prompted by an accident caused by fuel starvation where the shape of the wing fuel tanks and fuel below a certain level in that tank may have allowed the fuel to move away from the tank outlet during certain maneuvers. We are issuing this AD to prevent loss of engine power due to fuel starvation. This condition, if not corrected, could lead to loss of engine power or engine shutdown, which may result in loss of control.

(f) Compliance

Unless already done, within the next 50 hours time-in-service (TIS) after January 12, 2016 (the effective date of this AD), do the actions in paragraphs (g) and (h) of this AD, as applicable, including all subparagraphs.

(g) Fuel Warning Placard Inspection

(1) Inspect the fuel warning placard, if existing, following the Instructions section, of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014. If the placard is present and compliant with the Instructions section of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014, then no further action regarding the placard is required.

(2) If the fuel warning placard is not present or not compliant with the Instructions section of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014, then order the applicable placard from Piper Aircraft, Inc. at the address identified in paragraph (l)(3) of this AD. Alternatively, you may fabricate the applicable fuel warning placard following the Instructions section of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014. Install the fabricated fuel warning placard or the fuel warning placard obtained from Piper Aircraft, Inc. following the Instructions section of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014.

(h) Pilot's Operating Handbook (POH)/Airplane Flight Manual (AFM) Inspection

(1) Inspect the Limitations Section of the applicable POH/AFM following the Instructions section of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014.

(2) If the Limitations Section of the applicable POH/AFM contains the exact text found in table 2 of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014, there is no need for a POH/AFM revision.

(3) If the Limitations Section of the applicable POH/AFM does not contain the exact text found in Table 2 of Piper Aircraft, Inc. Mandatory Service Bulletin No. 1266, dated December 16, 2014, then revise the POH/AFM by inserting into the Limitations Section of the POH/AFM a fabricated supplemental page containing the applicable placard text from the Appendix to this AD or a supplemental page obtained from Piper Aircraft, Inc. at the address identified in paragraph (l)(3) of this AD.

(i) Pilot Authorization

In addition to the provisions of 14 CFR 43.3 and 43.7, the actions required by paragraphs (g) and (h) of this AD, to include all subparagraphs, may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the airplane records showing compliance with this AD in accordance with 14 CFR 43.9 (a)(1)-(4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417. This authority is not applicable to airplanes being operated under 14 CFR part 119.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (j)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

For more information about this AD, contact Ansel James, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; telephone: (404) 474-5576; fax: (404) 474-5606; email: ansel.james@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Piper Aircraft, Inc. Service Bulletin No. 1266, dated December 16, 2014.

(ii) Reserved.

(3) For Piper Aircraft, Inc. service information identified in this AD, contact Piper Aircraft, Inc., Customer Service, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (877) 879-0275; fax: none; email: customer.service@piper.com; Internet: www.piper.com.

(4) You may view this service information at FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Appendix to AD 2015-24-05–Models Affected/Model Serial Numbers/ Applicable Text for Supplemental Page to Pilot's Operating Handbook (POH)/Airplane Flight Manual (AFM)

Models affected	Model serial No.	Placard text for limitations section of the POH/AFM
PA-24-250 Comanche with fuel injection	24-2563, 24-2844 through 24-3641, 24-3643 through 24-3687	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANK IN USE IS LESS THAN ½ FULL.
PA-24-260 Comanche with fuel injection	24-3642, 24-4000 through 24-4299, 24-4300 through 24-4782, 24-4784 through 24-4803	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANK IN USE IS LESS THAN ½ FULL.

PA-24-260 “C” Comanche	24-4783, 24-4804 through 24-5047	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANK IN USE IS LESS THAN ½ FULL.
PA-24-400 Comanche	26-1 through 26-148	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANK IN USE IS NOT FULL.
PA-31 & PA-31-300 Navajo	31-2 to 31-861, 31-7300901 through 31-7300923, 31-7300925, 31-7300927, 31-7300929, 31-7300931	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ¾ FULL.
PA-31P Navajo	31P-1 through 31P-80, 31P-7300110 through 31P-7300115	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ¾ FULL.
PA-23-250 (six place) Aztec B with fuel injection	27-2322 through 27-2504	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ½ FULL.
PA-23-250 (six place) Aztec “C” PA-E23-250 (six place) Aztec “C”	27-2505 through 27-3836, 27-3838 through 27-3943	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ½ FULL.
PA-23-250 (six place) Aztec “D” PA-E23-250 (six place) Aztec “D”	27-3837, 27-3944 through 27-4425, 27-4427 through 27-4573	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ½ FULL.

PA-23-250 (six place) Aztec “E” PA-E23-250 (six place) Aztec “E”	27-4426, 27-4574 through 27-7405476	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ½ FULL.
PA-30 Twin Comanche	30-1 through 30-2000	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ¼ FULL.
PA-39 Twin Comanche	39-1 through 39-155	WARNING—UNCOORDINATED MANEUVERS, INCLUDING SIDE SLIPS OF 30 SECONDS OR MORE, FOR ANY REASON, AND FAST TAXI TURNS JUST PRIOR TO TAKEOFF CAN CAUSE LOSS OF POWER IF FUEL TANKS IN USE ARE LESS THAN ¼ FULL.

Issued in Kansas City, Missouri, on November 24, 2015.

Pat Mullen,

Acting Manager, Small Airplane Directorate,

Aircraft Certification Service.

[Federal Register Volume 82, Number 140 (Monday, July 24, 2017)]
[Rules and Regulations]
[Pages 34257-34259]
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[FR Doc No: 2017-15213]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0157; Directorate Identifier 2016-CE-039-AD; Amendment 39-18965; AD 2017-15-05]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 69-13-03 for all Piper Aircraft, Inc. Models PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, and PA-30 airplanes. AD 69-13-03 required inspection of the heater exhaust extension, replacement of the extension as necessary, and overhaul of the combustion heater assembly. This AD retains the inspection of the heater exhaust extension with replacement of the extension as necessary and removes the overhaul requirement of the combustion heater assembly. This AD was prompted by a recently issued AD that applies to the Meggitt (Troy), Inc. combustion heaters, and the combustion heater AD incorporates corrective actions for the heater that contradict the overhaul requirement of AD 69-13-03. We are issuing this AD to continue to address the unsafe condition on these products and avoid potential contradiction of actions.

DATES: This AD is effective August 28, 2017.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0157; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Scott Hopper, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5535; fax: (404) 474-5606; email: scott.hopper@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 69-13-03, Amendment 39-785 (34 FR 9748, June 24, 1969) as amended by AD 69-13-03, Amendment 39-1749 (38 FR 33765, December 7, 1973), ("AD 69-13-03"). AD 69-13-03 applied to certain Piper Aircraft, Inc. Models PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, and PA-30 airplanes. AD 69-13-03 required inspection of the heater exhaust extension to determine if it is mild steel or stainless steel, repetitive inspections of the mild steel extensions for deterioration, replacement of the extension as necessary, and overhaul of the combustion heater assembly. AD 69-13-03 resulted from the potential of carbon monoxide entering the airplane cabin.

The NPRM was prompted by another AD action that applies to the Meggitt (Troy), Inc. combustion heaters installed on the airplanes AD 69-13-03 applied to. AD 2017-06-03; Amendment 39-18827 (82 FR 15988, March 31, 2017), which applies to the Meggitt combustion heaters incorporates corrective actions for the heater that contradict the overhaul requirement of AD 69-13-03. The NPRM proposed to retain certain requirements of AD 69-13-03 and remove the requirement for overhaul of the heater assembly. We are issuing this AD continue to address the unsafe condition on these products and avoid potential contradiction of actions.

Comments

We gave the public the opportunity to participate in developing this AD. One comment was received from Ahmed Ali who agrees with the AD action. The following presents the other comment received on the NPRM and the FAA's response to the comment.

Request To Withdraw NPRM

Jeff Aryan stated the AD is not necessary. The commenter has owned a Model PA-30 airplane for 25 years and does not believe heater fumes can enter the cabin. He has used the heater for prolonged periods of time, with and without the engine running, and has not experienced any problems. He stated the exhaust system was well designed and does not need to be changed. He believes owners are not maintaining their airplane to the regulations. We infer the commenter would like for us to withdraw the NPRM.

We disagree with this comment. The potential exists for carbon monoxide to enter the cabin when the mild steel exhaust extension deteriorates. The required actions of this AD will continue to address the unsafe condition.

We have not changed this AD based on this comment.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Costs of Compliance

We estimate that this AD affects 1,950 airplanes of U.S. registry.

We estimate the following costs to comply with this AD. The new requirements of this AD add no additional economic burden:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Determine installation of a mild steel or stainless steel heater exhaust extension	1 work-hour × $85 per hour = $85	N/A	$85	$165,750

We estimate the following costs to do any necessary corrective actions that would be required based on the results of the inspection. We have no way of determining the number of airplanes that might need these corrective actions:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Inspection of mild steel heater exhaust extension	1 work-hour × $85 per hour = $85	Not applicable	$85
Replacement of heater exhaust extension	1 work-hour × $85 per hour = $85	* $1,000	1,085
Remove or disable the heater	1 work-hour × $85 per hour = $85	Not applicable	85

* There are currently no replacement parts available for the heater exhaust extension. The $1,000 parts cost is the FAA's best estimate if parts were to become available.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(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),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 69-13-03, Amendment 39-785 (34 FR 9748, June 24, 1969) as amended by AD 69-13-03, Amendment 39-1749 (38 FR 33765, December 7, 1973), and adding the following new AD:

2017-15-05 Piper Aircraft, Inc.: Amendment 39-18965; Docket No. FAA-2017-0157; Directorate Identifier 2016-CE-039-AD.

(a) Effective Date

This AD is effective August 28, 2017.

(b) Affected ADs

This AD replaces Airworthiness Directive (AD) 69-13-03, Amendment 39-785 (34 FR 9748, June 24, 1969) as amended by AD 69-13-03, Amendment 39-1749 (38 FR 33765, December 7, 1973) ("AD 69-13-03").

(c) Applicability

This AD applies to Piper Aircraft, Inc. Models PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, and PA-30 airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 21, Air Conditioning.

(e) Unsafe Condition

This AD was prompted by the potential of carbon monoxide entering the airplane cabin. We are issuing this AD to prevent failure of the combustion heater exhaust extension, which could lead to carbon monoxide entering the airplane cabin.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Mild Steel or Stainless Steel Exhaust Extension Determination

Within the next 25 hours time-in-service (TIS) after December 14, 1973 (the effective date retained from AD 69-13-03 as amended by AD 69-13-03, Amendment 39-785 (38 FR 33765, December 7, 1973)), remove the heater exhaust tube shroud and by means of a magnet determine if Stewart-Warner part number (P/N) 486238 exhaust extension (Piper P/N 754-708) is mild steel (magnetic) or stainless steel (non-magnetic). If the exhaust extension is stainless steel, then no further action is required by this AD.

(h) Mild Steel Exhaust Extensions

If there is a mild steel Stewart-Warner P/N 486238 exhaust extension (Piper P/N 754-708) installed on the airplane, within 25 hours TIS after August 28, 2017 (the effective date of this AD), you must do one of the following actions found in paragraph (h)(1) through (3) of this AD.

(1) Replace the mild steel exhaust extension with a stainless steel exhaust extension.

(2) Visually inspect the mild steel exhaust extension for deterioration (cracks, corrosion, rust, and/or flaking) and repetitively thereafter visually inspect the exhaust extension at intervals not to exceed 25 hours TIS or until the mild steel exhaust extension is replaced with a stainless steel exhaust extension.

(3) Disable or remove the combustion heater.

(i) Deterioration of the Mild Steel Exhaust Extension

If deterioration (cracks, corrosion, rust, and/or flaking) of the extension is found during any of the inspections required in paragraph (h)(2) of this AD, before further flight, you must do one of the following actions in paragraph (i)(1) or (2) of this AD.

(1) Replace the exhaust extension with a stainless steel exhaust extension or a mild steel P/N 486238 exhaust extension that has been inspected per paragraph (h)(2) of this AD and was found free of deterioration. If you install a mild steel P/N 486238 exhaust extension, you must continue the repetitive visual inspections required in paragraph (h)(2) of this AD.

(2) Disable or remove the heater.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (k) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved for paragraphs (a) and (b) of AD 69-13-03 are approved as AMOCs for the corresponding provisions of this AD.

(k) Related Information

For more information about this AD, contact Scott Hopper, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5535; fax: (404) 474-5606; email: scott.hopper@faa.gov.

Issued in Kansas City, Missouri, on July 12, 2017.
Pat Mullen,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.