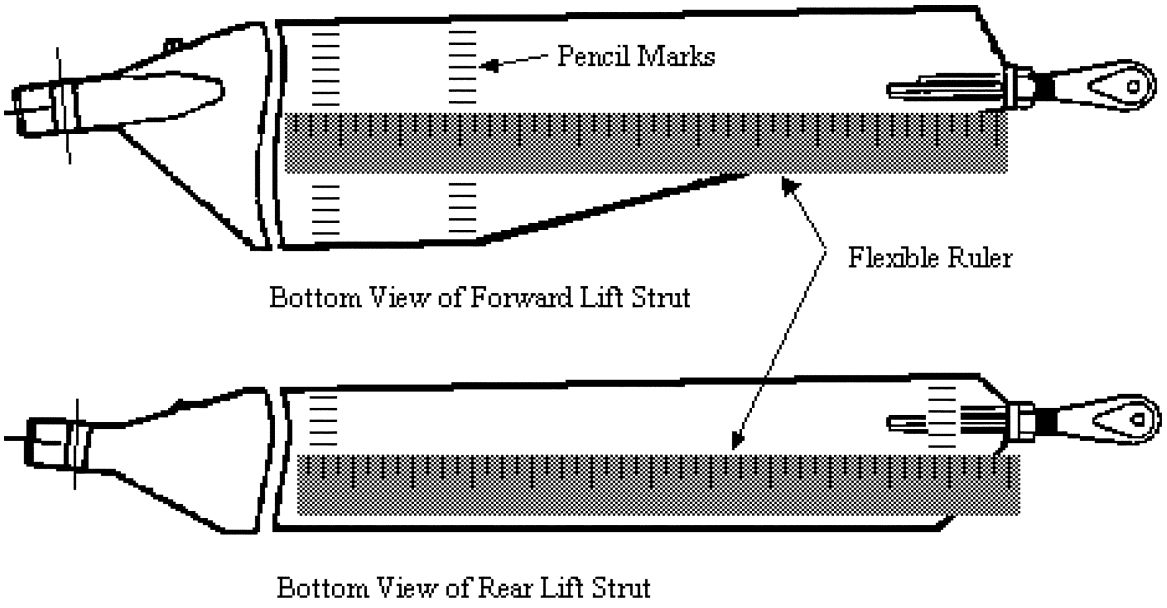

Figure 1

Issued in Kansas City, Missouri, on November 22, 2013.

Earl Lawrence,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2013–29682 Filed 12–13–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2013–0724; Directorate Identifier 99–CE–013–AD; Amendment 39–17691; AD 99–26–19 R1]

RIN 2120–AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are revising Airworthiness Directive (AD) 99–26–19 that applies to certain The New Piper Aircraft, Inc. Model J–2 airplanes equipped with wing lift struts. AD 99–26–19 required repetitively inspecting the wing lift struts for dents and corrosion; repetitively inspecting the wing lift strut forks for cracks; replacing any dented or corroded wing lift strut; replacing any cracked wing lift strut fork; and repetitively replacing the wing lift strut forks at specified times for certain airplanes. AD 99–26–19 also required incorporating a ''NO STEP'' placard on the wing lift strut. Since we issued AD 99–26–19, we were informed that paragraph (c) had been misinterpreted and caused confusion. This AD clarifies the intent of the language in paragraph (c) of AD 99–26–19 and retains all other requirements of AD 99–26–19. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD is effective January 21, 2014.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of February 14, 2000 (64 FR 72524, December 28, 1999).

ADDRESSES: For service information identified in this AD, contact Piper Aircraft, Inc., Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567–4361; Internet: *www.piper.com.* You may review copies of the 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 it in Docket No. FAA–2013–0724; 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: Gregory ''Keith'' Noles, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474–5551; fax: (404) 474–5606; email: *gregory.noles@faa.gov.*

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to revise AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999), (''AD 99–26–19''). AD 99–26–19 applied to the specified products. The NPRM published in the **Federal Register** on August 13, 2013 (78 FR 49221). The NPRM proposed to retain all requirements of AD 99–26–19

and clarify our intent of required actions if the seal on a sealed wing lift strut is ever improperly broken.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data 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 (78 FR 49221, August 13, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 49221, August 13, 2013).

Costs of Compliance

We estimate that this AD affects 91 airplanes of U.S. registry.

We estimate the following costs to comply with this AD. However, the only difference in the costs presented below and the costs associated with AD 99–26–19 is the change in the labor rate from $65 per hour to $85 per hour:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection of the wing lift struts and wing lift strut forks.	8 work-hours × $85 per hour = $680 per inspection cycle.	Not applicable	$680 per inspection cycle.	$61,880 per inspection cycle.
Installation placard	1 work-hour × $85 = $85	$30	$115	$10,465.

We estimate the following costs to do any necessary replacements that will be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these replacements:

ON-CONDITION COSTS

Action	Labor cost per wing lift strut	Parts cost per wing lift strut	Cost per product per wing lift strut
Replacement of the wing lift strut and/or wing lift strut forks.	4 work-hours × $85 per hour = $340	$440	$780

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) 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999), and adding the following new AD:

99–26–19 R1 Piper Aircraft, Inc.: Amendment 39–17691; Docket No. FAA–2013–0724; Directorate Identifier 99–CE–013–AD.

(a) Effective Date

This AD is effective January 21, 2014.

(b) Affected ADs

This AD revises AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999). AD 99–01–05, Amendment 39–10972 (63 FR 72132, December 31, 1998), which superseded AD 93–10–06, Amendment 39–8586 (58 FR 29965, May 25, 1993), also relates to the subject of this AD.

(c) Applicability

This AD applies to Piper Aircraft, Inc. Model J–2 airplanes, serial numbers 500 through 1975, that are:

(1) equipped with wing lift struts; and

(2) certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

(1) The subject of this AD was originally prompted by reports of corrosion damage found on the wing lift struts. We are revising AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999), because of reports that paragraph (c) had been misinterpreted and caused confusion. This AD removes the language in paragraph (c) of AD 99–26–19, which caused the confusion.

(2) This AD clarifies the FAA's intention that if a sealed wing lift strut assembly is installed as a replacement part, the repetitive inspection requirement is terminated only if the seal is never improperly broken. If the seal is improperly broken, then that wing lift strut becomes subject to continued repetitive inspections. We did not intend to promote drilling holes into or otherwise unsealing a sealed strut. This AD retains all the actions required in AD 99–26–19 and this AD does not require any actions over that already required in AD 99–26–19. This AD does not add any additional burden to the owners/operators of the affected airplanes.

(3) We are issuing this AD to detect and correct corrosion and cracking on the front and rear wing lift struts and forks, which could cause the wing lift strut to fail. This failure could result in the wing separating from the airplane.

(f) Paragraph Designation Changes to AD 99–26–19

Since AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999), was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this AD, as listed in the following table:

TABLE 1 TO PARAGRAPH (F) OF THIS AD—REVISED PARAGRAPH IDENTIFIERS

Requirement in AD 99–26–19	Corresponding requirement in this AD
paragraph (a)	paragraph (h)
paragraph (a)(1)	paragraph (i)(1)
paragraph (a)(1)(i)	paragraph (i)(1)(i)
paragraph (a)(1)(ii)	paragraph (i)(1)(ii)
paragraph (a)(2)	paragraph (i)(2)
paragraph (a)(2)(i)	paragraph (i)(2)(i)
paragraph (a)(2)(ii)	paragraph (i)(2)(ii)
paragraph (a)(3)	paragraph (j)(1)
paragraph (a)(4)	paragraph (j)(2)
paragraph (b)	paragraph (k)
paragraph (b)(1) through (b)(1)(ii)	paragraph (l)
paragraph (b)(1)(ii)(A)	paragraph (l)(1)
paragraph (b)(1)(ii)(B) and (b)(1)(iv)	paragraph (l)(2)
paragraph (b)(1)(ii)(C) and (b)(1)(iv)	paragraph (l)(3)
paragraph (b)(1)(iii) and (b)(2)	paragraph (m)(1)
paragraph (b)(3) through (b)(3)(ii)	paragraph (m)(2)
Paragraph (c)	Removed
paragraph (d)	paragraph (n)(1)
paragraph (d)(1)	paragraph (n)(1)(i)
paragraph (d)(2)	paragraph (n)(1)(ii)
N/A	Paragraph (n)(2)

(g) Compliance

Unless already done (compliance with AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999)), do the following actions within the compliance times specified in paragraphs (h) through (n) of this AD, including all subparagraphs. Properly unsealing and resealing a sealed wing lift strut is still considered a terminating action for the repetitive inspection requirements of this AD as long as all appropriate regulations and issues are considered, such as static strength, fatigue, material effects, immediate and long-term (internal and external) corrosion protection, resealing methods, etc. Current FAA regulations in 14 CFR 43.13(b) specify that maintenance performed will result in the part's condition to be at least equal to its original or properly altered condition. Any maintenance actions that unseal a sealed wing lift strut should be coordinated with the Atlanta Aircraft Certification Office (ACO) through the local airworthiness authority (e.g., Flight Standards District Office). There are provisions in paragraph (o) of this AD for approving such actions as an alternative method of compliance (AMOC).

(h) Remove Wing Lift Struts

At whichever of the compliance times specified in paragraphs (h)(1) or (h)(2) of this AD that occurs later, remove the wing lift struts following Piper Service Bulletin (SB) No. 528D, dated October 19, 1990. Before further flight after the removal, do the actions in one of the following paragraphs (i)(1), (i)(2), (j)(1), or (j)(2) of this AD, including all subparagraphs.

(1) Within 1 calendar month after February 14, 2000 (the effective date retained from AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999)); or

(2) Within 24 calendar months after the last inspection done in accordance with AD 93–10–06, Amendment 39–8586 (58 FR 29965, May 25, 1993).

(i) Inspect Wing Lift Struts

Before further flight after the removal required in paragraph (h) of this AD, inspect each wing lift strut following paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs, or do the wing lift strut replacement following one of the options in paragraph (j)(1) or (j)(2) of this AD.

(1) Inspect each wing lift strut for corrosion and perceptible dents following Piper SB No. 528D, dated October 19, 1990.

(i) *If no corrosion is visible and no perceptible dents are found on any wing lift strut during the inspection required in paragraph (i)(1) of this AD,* before further flight, apply corrosion inhibitor to each wing lift strut following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect each wing lift strut at intervals not to exceed 24 calendar months following the procedures in paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(ii) *If corrosion or perceptible dents are found on any wing lift strut during the inspection required in paragraph (i)(1) of this AD or during any repetitive inspection required in paragraph (i)(1)(i) of this AD,* before further flight, replace the affected wing lift strut with one of the replacement options specified in paragraph (j)(1) or (j)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(2) Inspect each wing lift strut for corrosion following the procedures in the Appendix to this AD. This inspection must be done by a Level 2 or Level 3 inspector certified using the guidelines established by the American Society for Non-destructive Testing or the ''Military Standard for Nondestructive Testing Personnel Qualification and Certification'' (MIL–STD–410E), which can be found on the Internet at *http://aerospacedefense.thomasnet.com/Asset/MIL-STD-410.pdf.*

(i) *If no corrosion is found on any wing lift strut during the inspection required in paragraph (i)(2) of this AD and all requirements in the Appendix to this AD are met,* before further flight, apply corrosion inhibitor to each wing lift strut following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect each wing lift strut at intervals not to exceed 24 calendar months following the procedures in paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(ii) *If corrosion is found on any wing lift strut during the inspection required in paragraph (i)(2) of this AD or during any repetitive inspection required in paragraph (i)(2)(i) of this AD, or if any requirement in the Appendix of this AD is not met,* before further flight after any inspection in which corrosion is found or the Appendix requirements are not met, replace the affected wing lift strut with one of the replacement options specified in paragraph (j)(1) or (j)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(j) Wing Lift Strut Replacement Options

Before further flight after the removal required in paragraph (h) of this AD, replace the wing lift struts following one of the options in paragraph (j)(1) or (j)(2) of this AD, or inspect each wing lift strut following paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(1) Install original equipment manufacturer (OEM) part number wing lift struts (or FAA-

approved equivalent part numbers) that have been inspected following the procedures in either paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs, and are found to be airworthy. Do the installations following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect the newly installed wing lift struts at intervals not to exceed 24 calendar months following the procedures in either paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(2) Install new sealed wing lift strut assemblies (or FAA-approved equivalent part numbers) (these sealed wing lift strut assemblies also include the wing lift strut forks) following Piper SB No. 528D, dated October 19, 1990. Installing one of these new sealed wing lift strut assemblies terminates the repetitive inspection requirements in paragraphs (i)(1) and (i)(2) of this AD, and the wing lift strut fork removal, inspection, and replacement requirements in paragraphs (k) and (l) of this AD, including all subparagraphs, for that wing lift strut assembly.

(k) Remove Wing Lift Strut Forks

Within the next 100 hours time-in-service (TIS) after February 14, 2000 (the effective date retained from AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999)) or within 500 hours TIS after the last inspection done in accordance with AD 93–10–06, Amendment 39–8586 (58 FR 29965, May 25, 1993), whichever occurs later, remove the wing lift strut forks (unless already replaced in accordance with paragraph (j)(2) of this AD). Do the removal following Piper SB No. 528D, dated October 19, 1990. Before further flight after the removal, do the actions in one of the following paragraphs (l) or (m) of this AD, including all subparagraphs.

(l) Inspect Wing Lift Strut Forks

Before further flight after the removal required in paragraph (k) of this AD, inspect the wing lift strut forks following paragraph (l) of this AD, including all subparagraphs, or do the wing lift strut fork replacement following one of the options in paragraph (m)(1) or (m)(2) of this AD. Inspect the wing lift strut forks for cracks using magnetic particle procedures, such as those contained in FAA Advisory Circular (AC) 43.13–1B, Chapter 5, which can be found in the Internet at *http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/99c827db9baac81b86256b4500596c4e/$FILE/Chapter%2005.pdf*. Repetitively thereafter inspect at intervals not to exceed 500 hours TIS until the replacement time requirement specified in paragraph (l)(2) or (l)(3) of this AD is reached provided no cracks are found.

(1) *If cracks are found during any inspection required in paragraph (l) of this AD or during any repetitive inspection required in paragraph (l)(2) or (l)(3) of this AD,* before further flight, replace the affected wing lift strut fork with one of the replacement options specified in paragraph (m)(1) or (m)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(2) *If no cracks are found during the initial inspection required in paragraph (l) of this AD and the airplane is currently equipped with floats or has been equipped with floats at any time during the previous 2,000 hours TIS since the wing lift strut forks were installed,* at or before accumulating 1,000 hours TIS on the wing lift strut forks, replace the wing lift strut forks with one of the replacement options specified in paragraph (m)(1) or (m)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable. Repetitively thereafter inspect the newly installed wing lift strut forks at intervals not to exceed 500 hours TIS following the procedures specified in paragraph (l) of this AD, including all subparagraphs.

(3) *If no cracks are found during the initial inspection required in paragraph (l) of this AD and the airplane has never been equipped with floats during the previous 2,000 hours TIS since the wing lift strut forks were installed,* at or before accumulating 2,000 hours TIS on the wing lift strut forks, replace the wing lift strut forks with one of the replacement options specified in paragraph (m)(1) or (m)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable. Repetitively thereafter inspect the newly installed wing lift strut forks at intervals not to exceed 500 hours TIS following the procedures specified in paragraph (l) of this AD, including all subparagraphs.

(m) Wing Lift Strut Fork Replacement Options

Before further flight after the removal required in paragraph (k) of this AD, replace the wing lift strut forks following one of the options in paragraph (m)(1) or (m)(2) of this AD, or inspect the wing lift strut forks following paragraph (1) of this AD, including all subparagraphs

(1) Install new OEM part number wing lift strut forks of the same part numbers of the existing part (or FAA-approved equivalent part numbers) that were manufactured with rolled threads. Wing lift strut forks manufactured with machine (cut) threads are not to be used. Do the installations following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect and replace the newly installed wing lift strut forks at intervals not to exceed 500 hours TIS following the procedures specified in paragraph (l) of this AD, including all subparagraphs.

(2) Install new sealed wing lift strut assemblies (or FAA-approved equivalent part numbers) (these sealed wing lift strut assemblies also include the wing lift strut forks) following Piper SB No. 528D, dated October 19, 1990. This installation may have already been done through the option specified in paragraph (j)(2) of this AD. Installing one of these new sealed wing lift strut assemblies terminates the repetitive inspection requirements in paragraphs (i)(1) and (i)(2) of this AD, and the wing lift strut fork removal, inspection, and replacement requirements in paragraphs (k) and (l) of this AD, including all subparagraphs, for that wing lift strut assembly.

(n) Install Placard

(1) Within 1 calendar month after February 14, 2000 (the effective date retained from AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999), or within 24 calendar months after the last inspection required by AD 93–10–06, Amendment 39–8586 (58 FR 29965, May 25, 1993), whichever occurs later, and before further flight after any replacement of a wing lift strut assembly required by this AD, do the actions in one of the following paragraphs (n)(1)(i) or (n)(1)(ii) of this AD:

(i) Install ''NO STEP'' decal, Piper (P/N) 80944–02, on each wing lift strut approximately 6 inches from the bottom of the wing lift strut in a way that the letters can be read when entering and exiting the airplane; or

(ii) Paint the words ''NO STEP'' approximately 6 inches from the bottom of the wing lift strut in a way that the letters can be read when entering and exiting the airplane. Use a minimum of 1-inch letters using a color that contrasts with the color of the airplane.

(2) The ''NO STEP'' markings required by paragraph (n)(1)(i) and (n)(1)(ii) of this AD must remain in place for the life of the airplane.

(o) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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 the Related Information section 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 AD 93–10–06, Amendment 39–8586 (58 FR 29965, May 25, 1993) and AD 99–26–19, Amendment 39–11479 (64 FR 72524, December 28, 1999) are approved as AMOCs for this AD.

(p) Related Information

For more information about this AD, contact Gregory K. Noles, Aerospace Engineer, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474–5551; fax: (404) 474–5606; email: *gregory.noles@faa.gov*.

(q) 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.

(3) The following service information was approved for IBR on February 14, 2000 (64 FR 72524, December 28, 1999).

(i) Piper Service Bulletin No. 528D, dated October 19, 1990.

(ii) Reserved.

(4) For Piper Aircraft, Inc. service information identified in this AD, contact Piper Aircraft, Inc., Customer Services, 2926

Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567–4361; Internet: *www.piper.com*.

(5) 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.

(6) 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 99–26–19 R1

Procedures and Requirements for Ultrasonic Inspection of Piper Wing Lift Struts

EQUIPMENT REQUIREMENTS

1. A portable ultrasonic thickness gauge or flaw detector with echo-to-echo digital thickness readout capable of reading to 0.001-inch and an A-trace waveform display will be needed to do this inspection.

2. An ultrasonic probe with the following specifications will be needed to do this inspection: 10 MHz (or higher), 0.283-inch (or smaller) diameter dual element or delay line transducer designed for thickness gauging. The transducer and ultrasonic system shall be capable of accurately measuring the thickness of AISI 4340 steel down to 0.020-inch. An accuracy of +/− 0.002-inch throughout a 0.020-inch to 0.050-inch thickness range while calibrating shall be the criteria for acceptance.

3. Either a precision machined step wedge made of 4340 steel (or similar steel with equivalent sound velocity) or at least three shim samples of same material will be needed to do this inspection. One thickness of the step wedge or shim shall be less than or equal to 0.020-inch, one shall be greater than or equal to 0.050-inch, and at least one other step or shim shall be between these two values.

4. Glycerin, light oil, or similar non-water based ultrasonic couplants are recommended in the setup and inspection procedures. Water-based couplants, containing appropriate corrosion inhibitors, may be utilized, provided they are removed from both the reference standards and the test item after the inspection procedure is completed and adequate corrosion prevention steps are then taken to protect these items.

• NOTE: Couplant is defined as ''a substance used between the face of the transducer and test surface to improve transmission of ultrasonic energy across the transducer/strut interface.''

• NOTE: If surface roughness due to paint loss or corrosion is present, the surface should be sanded or polished smooth before testing to assure a consistent and smooth surface for making contact with the transducer. Care shall be taken to remove a minimal amount of structural material. Paint repairs may be necessary after the inspection to prevent further corrosion damage from occurring. Removal of surface irregularities will enhance the accuracy of the inspection technique.

INSTRUMENT SETUP

1. Set up the ultrasonic equipment for thickness measurements as specified in the instrument's user's manual. Because of the variety of equipment available to perform ultrasonic thickness measurements, some modification to this general setup procedure may be necessary. However, the tolerance requirement of step 13 and the record keeping requirement of step 14, must be satisfied.

2. If battery power will be employed, check to see that the battery has been properly charged. The testing will take approximately two hours. Screen brightness and contrast should be set to match environmental conditions.

3. Verify that the instrument is set for the type of transducer being used, i.e. single or dual element, and that the frequency setting is compatible with the transducer.

4. If a removable delay line is used, remove it and place a drop of couplant between the transducer face and the delay line to assure good transmission of ultrasonic energy. Reassemble the delay line transducer and continue.

5. Program a velocity of 0.231-inch/microsecond into the ultrasonic unit unless an alternative instrument calibration procedure is used to set the sound velocity.

6. Obtain a step wedge or steel shims per item 3 of the EQUIPMENT REQUIREMENTS. Place the probe on the thickest sample using couplant. Rotate the transducer slightly back and forth to ''ring'' the transducer to the sample. Adjust the delay and range settings to arrive at an A-trace signal display with the first backwall echo from the steel near the left side of the screen and the second backwall echo near the right of the screen. Note that when a single element transducer is used, the initial pulse and the delay line/steel interface will be off of the screen to the left. Adjust the gain to place the amplitude of the first backwall signal at approximately 80% screen height on the A-trace.

7. ''Ring'' the transducer on the thinnest step or shim using couplant. Select positive half-wave rectified, negative half-wave rectified, or filtered signal display to obtain the cleanest signal. Adjust the pulse voltage, pulse width, and damping to obtain the best signal resolution. These settings can vary from one transducer to another and are also user dependent.

8. Enable the thickness gate, and adjust the gate so that it starts at the first backwall echo and ends at the second backwall echo. (Measuring between the first and second backwall echoes will produce a measurement of the steel thickness that is not affected by the paint layer on the strut). If instability of the gate trigger occurs, adjust the gain, gate level, and/or damping to stabilize the thickness reading.

9. Check the digital display reading and if it does not agree with the known thickness of the thinnest thickness, follow your instrument's calibration recommendations to produce the correct thickness reading. When a single element transducer is used this will usually involve adjusting the fine delay setting.

10. Place the transducer on the thickest step of shim using couplant. Adjust the thickness gate width so that the gate is triggered by the second backwall reflection of the thick section. If the digital display does not agree with the thickest thickness, follow your instruments calibration recommendations to produce the correct thickness reading. A slight adjustment in the velocity may be necessary to get both the thinnest and the thickest reading correct. Document the changed velocity value.

11. Place couplant on an area of the lift strut which is thought to be free of corrosion and ''ring'' the transducer to surface. Minor adjustments to the signal and gate settings may be required to account for coupling improvements resulting from the paint layer. The thickness gate level should be set just high enough so as not to be triggered by irrelevant signal noise. An area on the upper surface of the lift strut above the inspection area would be a good location to complete this step and should produce a thickness reading between 0.034-inch and 0.041-inch.

12. Repeat steps 8, 9, 10, and 11 until both thick and thin shim measurements are within tolerance and the lift strut measurement is reasonable and steady.

13. Verify that the thickness value shown in the digital display is within +/− 0.002-inch of the correct value for each of the three or more steps of the setup wedge or shims. Make no further adjustments to the instrument settings.

14. Record the ultrasonic versus actual thickness of all wedge steps or steel shims available as a record of setup.

INSPECTION PROCEDURE

1. Clean the lower 18 inches of the wing lift struts using a cleaner that will remove all dirt and grease. Dirt and grease will adversely affect the accuracy of the inspection technique. Light sanding or polishing may also be required to reduce surface roughness as noted in the EQUIPMENT REQUIREMENTS section.

2. Using a flexible ruler, draw a ¼-inch grid on the surface of the first 11 inches from the lower end of the strut as shown in Piper SB No. 528D, dated October 19, 1990, or Piper SB No. 910A, dated October 10, 1989. This can be done using a soft (#2) pencil and should be done on both faces of the strut. As an alternative to drawing a complete grid, make two rows of marks spaced every ¼-inch across the width of the strut. One row of marks should be about 11 inches from the lower end of the strut, and the second row should be several inches away where the strut starts to narrow. Lay the flexible ruler between respective tick marks of the two rows and use tape or a rubber band to keep the ruler in place. See Figure 1.

3. Apply a generous amount of couplant inside each of the square areas or along the edge of the ruler. Re-application of couplant may be necessary.

4. Place the transducer inside the first square area of the drawn grid or at the first ¼-inch mark on the ruler and ''ring'' the transducer to the strut. When using a dual element transducer, be very careful to record the thickness value with the axis of the transducer elements perpendicular to any curvature in the strut. If this is not done, loss of signal or inaccurate readings can result.

5. Take readings inside each square on the grid or at ¼-inch increments along the ruler and record the results. When taking a thickness reading, rotate the transducer slightly back and forth and experiment with the angle of contact to produce the lowest thickness reading possible. Pay close attention to the A-scan display to assure that the thickness gate is triggering off of maximized backwall echoes.

• NOTE: A reading shall not exceed .041 inch. If a reading exceeds .041-inch, repeat steps 13 and 14 of the INSTRUMENT SETUP section before proceeding further.

6. If the A-trace is unsteady or the thickness reading is clearly wrong, adjust the signal gain and/or gate setting to obtain reasonable and steady readings. If any instrument setting is adjusted, repeat steps 13 and 14 of the INSTRUMENT SETUP section before proceeding further.

7. In areas where obstructions are present, take a data point as close to the correct area as possible.

• NOTE: The strut wall contains a fabrication bead at approximately 40% of the strut chord. The bead may interfere with accurate measurements in that specific location.

8. A measurement of 0.024-inch or less shall require replacement of the strut prior to further flight.

9. If at any time during testing an area is encountered where a valid thickness measurement cannot be obtained due to a loss of signal strength or quality, the area shall be considered suspect. These areas may have a remaining wall thickness of less than 0.020-inch, which is below the range of this setup, or they may have small areas of localized corrosion or pitting present. The latter case will result in a reduction in signal strength due to the sound being scattered from the rough surface and may result in a signal that includes echoes from the pits as well as the backwall. The suspect area(s) shall be tested with a Maule ''Fabric Tester'' as specified in Piper SB No. 528D, dated October 19, 1990, or Piper SB No. 910A, dated October 10, 1989.

10. Record the lift strut inspection in the aircraft log book.

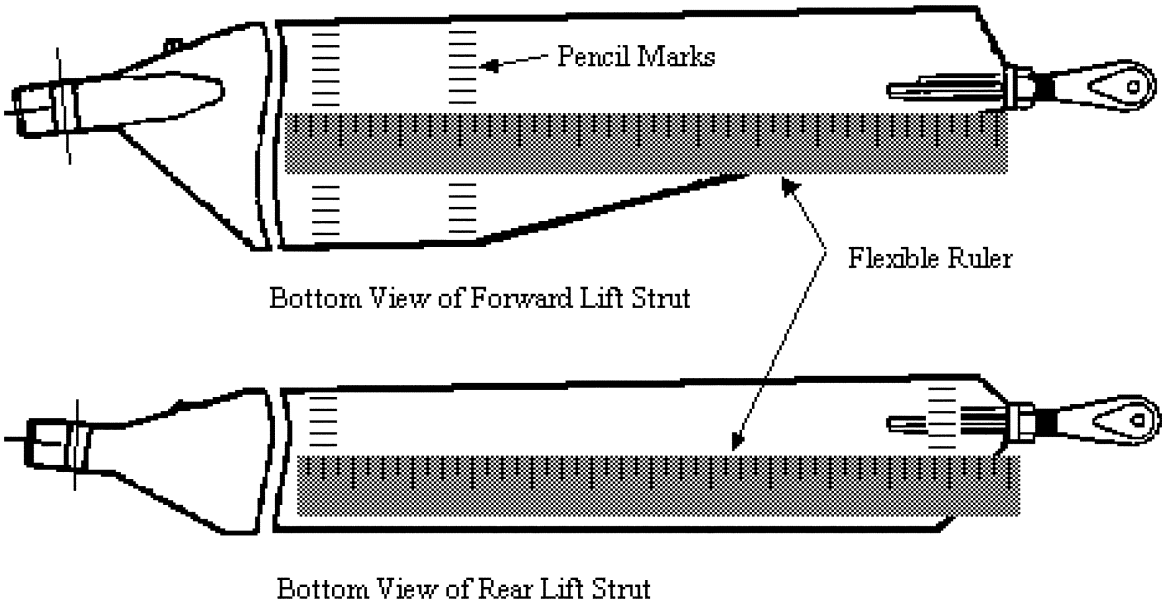

Figure 1

Issued in Kansas City, Missouri, on November 22, 2013.

Earl Lawrence,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2013–29679 Filed 12–13–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2013–0879; Directorate Identifier 2013–NE–30–AD; Amendment 39–17694; AD 2013–24–17]

RIN 2120–AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for General Electric Company (GE) GE90–110B1 and GE90–115B turbofan engines with certain high pressure compressor (HPC) rotor stage 2–5 spools installed. This AD requires removing these spools from service at times determined by a drawdown plan. This AD was prompted by reports of cracks in HPC rotor stage 2–5 spool aft spacer arms. We are issuing this AD to prevent failure of a critical life-limited rotating engine part, which could result in an uncontained engine failure and damage to the airplane.

DATES: This AD is effective December 31, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 31, 2013.

We must receive comments on this AD by January 30, 2014.

ADDRESSES: You may send comments, using the procedures found in 14 CFR