**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2011-0954; Directorate Identifier 2011-CE-028-AD; Amendment 39-16865; AD 2011-24-01]**

**RIN 2120-AA64**

**Airworthiness Directives; Piaggio Aero Industries S.p.A. Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for Piaggio Aero Industries S.p.A. Model P-180 airplanes. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

> Some lock sleeves (part number (P/N) 114146681), which were installed in some Main Landing Gear (MLG) actuators, had been incorrectly manufactured.
>
> If left uncorrected, this condition could lead to failure to lock the MLG actuator or to its unlock from the correct position, with subsequent possible damage to the aeroplane and injuries to occupants during landing.

We are issuing this AD to require actions to correct the unsafe condition on these products.

**DATES:** This AD is effective December 22, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of December 22, 2011.

**ADDRESSES:** You may examine the AD docket on the Internet at http://www.regulations.gov or in person at 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 service information identified in this AD, contact Piaggio Aero Industries S.p.A. Airworthiness Office; Via Luigi Cibrario, 4-16154 Genova-Italy; telephone: +39 010 6481353; fax: +39 010 6481881; Email: airworthiness@piaggioaero.it. 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.

**FOR FURTHER INFORMATION CONTACT:** Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4144; fax: (816) 329-4090; email: mike.kiesov@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on September 1, 2011 (76 FR 54403). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

> Some lock sleeves (part number (P/N) 114146681), which were installed in some Main Landing Gear (MLG) actuators, had been incorrectly manufactured.
>
> If left uncorrected, this condition could lead to failure to lock the MLG actuator or to its unlock from the correct position, with subsequent possible damage to the aeroplane and injuries to occupants during landing.
>
> This AD requires replacing defective MLG actuators with serviceable ones.
>
> Defective actuators can be repaired by the manufacturer and identified with the ‘‘P180-32-29" marking on the name plate.

**Comments**

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

**Comment Issue: MLG Actuator Compliance Time**

Carlo Cardu, Piaggio Aero Industries, stated the MLG actuator has a life-limit based on landings and most operators note the landings accrued on the actuator. Mr. Cardu reasoned that for operators with a higher hours time-in-service (TIS)/landing ratio (more than 1), the AD compliance limit presented in hours TIS would be more stringent than required. As for operators with a lower hours TIS/landing ratio, the AD compliance limit presented in hours TIS would be relaxed with reference to the compliance time of the service information. Mr. Cardu recommended changing the actuator replacement compliances times to read:

before affected MLG actuators reach 3000 landings, replace * * *; only if landings data are not available, replace the affected actuator before 3000 FH TIS * * * or similar statement

The FAA agrees with the commenter and we changed paragraph (f)(3) of the AD.

**Conclusion**

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

**Differences Between This AD and the MCAI or Service Information**

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to

ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a NOTE within the AD.

**Costs of Compliance**

We estimate that this AD will affect 102 products of U.S. registry. We also estimate that it will take about 0.5 work-hour per product to comply with the basic requirements of this AD. The average labor rate is $85 per work-hour. Required parts will cost about $0 per product.

Based on these figures, we estimate the cost of the AD on U.S. operators to be $4,335, or $43 per product.

In addition, we estimate that any necessary follow-on actions will take about 7 work-hours and require parts costing $64,822, for a cost of $65,417 per product. There are a maximum of 17 actuators that are identified by the manufacturer that will be required to be replaced. We have no way of determining the number of affected airplanes on the U.S. registry that may have these actuators that may have to be replaced by these actions.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

There is a warranty expiration date for the replacement of the actuators. The FAA recommends owners/operators that have affected main landing gear actuators contact the manufacturer immediately and replace the actuators under warranty.

**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 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 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 regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD Docket.

**Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov; 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 the NPRM (76 FR 54403), the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**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 AD:

**2011-24-01 Piaggio Aero Industries S.p.A.:** Amendment 39-16865; Docket No. FAA-2011-0954; Directorate Identifier 2011-CE-028-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective December 22, 2011.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to PIAGGIO AERO INDUSTRIES S.p.A Model PIAGGIO P-180 airplanes, all serial numbers, that are:

(1) Certificated in any category; and

(2) Have any of the following main landing gear (MLG) actuators installed:

(i) Messier-Dowty Part Number (P/N) 114346003 (left hand side): with serial number (S/N) SA0706275, SA0706276, SA0706726, SA0706727, SA0706728, SA0706729, SA0706738, SA0706739,SA0707243, SA0707864, or SA0708072; or

(ii) Messier-Dowty P/N 114346004 (right hand side): with S/N SA0703800, SA0703801, SA0705520, SA0706219, SA0706960, or SA0706961.

**(d) Subject**

Air Transport Association of America (ATA) Code 32: Landing Gear.

**(e) Reason**

The mandatory continuing airworthiness information (MCAI) states:

> Some lock sleeves (part number (P/N) 114146681), which were installed in some Main Landing Gear (MLG) actuators, had been incorrectly manufactured.
>
> If left uncorrected, this condition could lead to failure to lock the MLG actuator or to its unlock from the correct position, with subsequent possible damage to the aeroplane and injuries to occupants during landing.
>
> This AD requires replacing defective MLG actuators with serviceable ones.
>
> Defective actuators can be repaired by the manufacturer and identified with the ‘‘P180-32-29" marking on the name plate.

**(f) Actions and Compliance**

Unless already done, do the following actions:

(1) Within 25 hours time-in-service (TIS) after December 22, 2011 (the effective date of this AD), inspect both installed MLG actuators to determine if an affected P/N and S/N actuator is installed.

(2) If any affected P/N and S/N actuator is identified with the ‘‘P180-32-29" marking on the name plate, no further action is required by this AD on that actuator.

(3) If one or both affected MLG actuators are not identified with the ‘‘P180-32-29" marking on the name plate, before reaching a total of 3,000 landings on the actuator or within the next 150 landings after December 22, 2011 (the effective date of this AD), whichever occurs later, replace the affected actuator(s) with serviceable parts following Part B of the Accomplishments Instructions of Piaggio Aero Industries S.p.A. Mandatory Service Bulletin No. 80-0304, dated July 9, 2010. If landing data is not available, the use of a one-to-one landing to flight hour conversion must be applied (example: 3,000 landings equal 3,000 hours TIS).

(4) After December 22, 2011 (the effective date of this AD), do not install any MLG actuator having an affected P/N and S/N, unless it is identified with the ‘‘P180-32-29" marking on the name plate.

**Note 1:** There is a warranty expiration date for the replacement of the actuators. The FAA recommends owners/operators that have affected main landing gear actuators contact the manufacturer immediately and replace the actuators under warranty.

**FAA AD Differences**

**Note 2:** This AD differs from the MCAI and/or service information as follows: None.

**(g) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4144; fax: (816) 329-4090; email: mike.kiesov@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(h) **Related Information**

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2011-0133, dated July 12, 2011; and Piaggio Aero Industries S.p.A. Mandatory Service Bulletin No. 80-0304, dated July 9, 2010, for related information.

(i) **Material Incorporated by Reference**

You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information on the date specified:

(1) Piaggio Aero Industries S.p.A. Mandatory Service Bulletin No. 80-0304, dated July 9, 2010, approved for IBR on December 22, 2011.

(2) For service information identified in this AD, contact Piaggio Aero Industries S.p.A Airworthiness Office; Via Luigi Cibrario, 4-16154 Genova-Italy; telephone: +39 010 6481353; fax: +39 010 6481881; Email: airworthiness@piaggioaero.it.

(3) You may review copies of the 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.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Kansas City, Missouri, on November 8, 2011.
John R. Colomy,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.