

## SERVICE INFORMATION NO. SI 40NG-050

**NOTE:** SI's are used only:  
1) To distribute information from DAI to our customers.  
2) To distribute applicable information/documents from our suppliers to our customers with additional information.  
Typically there is no revision service for SI's. Each new information or change of that will be sent along with a new SI.

### I. TECHNICAL DETAILS

#### 1.1 Airplanes affected:

All DA 40 NG airplanes

#### 1.2 Subject:

FAA Airworthiness Directive No. 2011-18-19

ATA-Code: 73-20

#### 1.3 Reason:

For completing reasons of FAA Airworthiness Directive listing for the DA 40 NG the FAA Airworthiness Directive No. 2011-18-19 is distributed with this Service Information. FAA Airworthiness Directive No. 2011-18-19 supersedes FAA Airworthiness Directive No. 2010-23-09.

#### 1.4 Information:

For detailed technical information refer to FAA Airworthiness Directive No. 2011-18-19 which is applicable without any further additions or restrictions.

### II. OTHERS

FAA Airworthiness Directive No. 2011-18-19 is attached to this SI.

In case of doubt contact Diamond Aircraft Industries GmbH.

[Federal Register Volume 76, Number 170 (Thursday, September 1, 2011)]  
[Rules and Regulations]  
[Pages 54373-54374]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2011-22347]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2010-1055; Directorate Identifier 2010-NE-35-AD; Amendment 39-16801; AD 2011-18-19]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Austro Engine GmbH Model E4 Diesel Piston Engines**

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

**ACTION:** Final rule.

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**SUMMARY:** We are superseding an existing airworthiness directive (AD) for the products listed above. That AD currently requires frequent inspections of the fuel pressure supply for excessive oscillations to determine if high-pressure (HP) fuel pumps have been exposed to damaging pressure oscillations. Pumps that have been exposed require replacement before further flight. This new AD requires the initial and repetitive inspections of AD 2010-23-09, but also requires installing HP fuel pump part number (P/N) E4A-30-200-000, as mandatory terminating action to the repetitive inspections. We are issuing this AD to prevent engine power loss or in-flight shutdown, which could result in loss of control of the airplane.

**DATES:** This AD is effective October 6, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 22, 2010 (75 FR 68179, November 5, 2010).

**ADDRESSES:** For service information identified in this AD, contact Austro Engine GmbH, Rudolf-Diesel-Strasse 11, A-2700 Weiner Neustadt, Austria, phone: +43 2622 23000; fax: +43 2622 23000-2711, or go to: <http://www.austroengine.at>. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

#### **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 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:** James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7176; fax: 781-238-7199; e-mail: james.lawrence@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2010-23-09, Amendment 39-16498 (75 FR 68179, November 5, 2010). That AD applies to the specified products. The NPRM published in the Federal Register on June 9, 2011 (76 FR 33660). That NPRM proposed to continue to require frequent inspections of the fuel pressure supply for excessive oscillations to determine if high-pressure fuel pumps have been exposed to damaging pressure oscillations. That NPRM also proposed to require installing HP fuel pump P/N E4A-30-200-000, as mandatory terminating action to the repetitive inspections.

### **Comments**

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

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting the AD as proposed.

### **Costs of Compliance**

Based on the service information, we estimate that this AD will affect about 32 model E4 diesel piston engines, installed on airplanes of US registry. We also estimate that it will take about 1 work-hour per engine to perform one inspection, and about 2 work-hours per engine to replace the HP fuel pump. The average labor rate is \$85 per work-hour. Required parts will cost about \$2,325 per product. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$82,560.

### **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) 2010-23-09, Amendment 39-16498 (75 FR 68179, November 5, 2010), and adding the following new AD:



**2011-18-19 Austro Engine GmbH:** Amendment 39-16801; Docket No. FAA-2010-1055; Directorate Identifier 2010-NE-35-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective October 6, 2011.

**Affected ADs**

(b) This AD supersedes AD 2010-23-09, Amendment 39-16498 (75 FR 68179, November 5, 2010).

**Applicability**

(c) This AD applies to Austro Engine GmbH model E4 diesel piston engines, with high-pressure (HP) fuel pump, part number (P/N) E4A-30-100-000, installed.

**Unsafe Condition**

(d) This AD was prompted by Austro Engine GmbH introducing a new P/N fuel pump as mandatory terminating action to the repetitive inspections required by AD 2010-23-09, Amendment 39-16498 (75 FR 68179, November 5, 2010). We are issuing this AD to prevent engine power loss or in-flight shutdown, which could result in loss of control of the airplane.

**Compliance**

(e) Comply with this AD within the compliance times specified, unless already done.

(1) Inspect the fuel pressure supply for excessive oscillations using the inspection schedule in Table 1 of this AD.

**Table 1—Inspection Schedule**

<b>Accumulated Time-Since-New (TSN) or Time Since Last Inspection (TSLI):</b>	<b>Compliance time:</b>
45 flight hours or more	Within 10 flight hours after the effective date of this AD.
Fewer than 45 flight hours	Before 55 flight hours TSN or TSLI.
Repetitive inspections	Before 55 flight hours TSLI.

(2) Use Austro Engine GmbH Work Instruction No. WI-MSB-E4-009, dated October 7, 2010, to do the inspections.

(3) Replace the HP fuel pump before further flight with a new HP fuel pump, P/N E4A-30-200-000, if the oscillations exceed 300mV (750hPa).

## **Mandatory Terminating Action**

(4) As mandatory terminating action to the repetitive inspections, within 120 flight hours after the effective date of this AD, replace the HP fuel pump, P/N E4A-30-100-000, with a HP fuel pump, P/N E4A-30-200-000. Austro Engine GmbH Mandatory Service Bulletin (MSB) No. MSB-E4-009/2 contains guidance on replacing the HP fuel pump.

## **Installation Prohibitions**

(f) After the effective date of this AD, do not install any HP fuel pump P/N E4A-30-100-000, onto any engine.

(g) After the effective date of this AD, do not install any engine equipped with HP fuel pump P/N E4A-30-100-000, onto any airplane.

## **Alternative Methods of Compliance (AMOCs)**

(h) The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

## **Related Information**

(i) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2011-0039, dated March 8, 2011, and Austro Engine GmbH MSB No. MSB-E4-009/2, dated March 4, 2011, for related information.

(j) For more information about this AD, contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7176; fax: 781-238-7199; e-mail: james.lawrence@faa.gov.

## **Material Incorporated by Reference**

(k) You must use Austro Engine GmbH Work Instruction No. WI-MSB-E4-009, dated October 7, 2010, to do the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51, as of November 22, 2010.

(l) For service information identified in this AD, contact Austro Engine GmbH, Rudolf-Diesel-Strasse 11, A-2700 Weiner Neustadt, Austria, phone: +43 2622 23000; fax: +43 2622 23000-2711, or go to: <http://www.austroengine.at>. For information on the availability of this material at the FAA, call 781-238-7125.

(m) 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Burlington, Massachusetts, on August 24, 2011.  
Thomas A. Boudreau,  
Acting Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.