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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2011-0533; Directorate Identifier 2011-NE-16-AD; Amendment 39-16948; AD 2012-03-07]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Lycoming Engines Reciprocating Engines**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Lycoming Engines reciprocating engines. This AD was prompted by a report of a “machined-from-billet” HA-6 carburetor having a loose mixture control sleeve that rotated in the carburetor body causing restriction of fuel and power loss. This AD requires removing certain “machined-from-billet” Volare LLC (formerly Precision Airmotive Corporation, formerly Facet Aerospace Products Company, formerly Marvel-Schebler (BorgWarner)) HA-6 carburetors, inspecting for a loose mixture control sleeve or for a sleeve that may become loose, repairing the carburetor, or replacing the carburetor with one eligible for installation. We are issuing this AD to prevent engine in-flight shutdown, power loss, and reduced control of the airplane.

**DATES:** This AD is effective March 27, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of March 27, 2012.

**ADDRESSES:** For service information identified in this AD, contact Marvel-Schebler Aircraft Carburetors LLC, 125 Piedmont Avenue, Gibsonville NC 27249; phone: 336-446-0002; fax: 336-446-0007; email: customerservice@msacarbs.com; Web site: www.msacarbs.com. 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:** Kevin Brane, Aerospace Engineer, Propulsion, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate; 1701 Columbia Avenue, College Park, Georgia 30337; phone: 404-474-5582; fax: 404-474-5606; email: kevin.brane@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 published in the Federal Register on September 1, 2011 (76 FR 54397). That NPRM proposed to require removing certain “machined-from-billet” Volare LLC (formerly Precision Airmotive Corporation, formerly Facet Aerospace Products Company, formerly Marvel-Schebler (BorgWarner)) HA-6 carburetors, inspecting for a loose mixture control sleeve or for a sleeve that may become loose, repairing the carburetor, or replacing the carburetor with one eligible for installation.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the proposal and the FAA's response.

### **Request To Incorporate All Affected Engine Models**

One commenter, a private citizen, requested that we incorporate all affected engine models with HA-6 model carburetors installed in the AD. The commenter provided a list, which he compiled from reviewing all applicable published Type Certificate Data Sheets (TCDS).

We partially agree. We agree that some additional models are affected because the list provided by the commenter is mostly consistent with the applicable TCDS. We do not agree with the commenter on some of the models he thinks are affected, because we could not confirm they are affected, based on the TCDS. However, we determined that we need to change the applicability from a table of specific engine models, to all Lycoming Engines reciprocating engines with carburetor part numbers listed in Table 1 of the AD. We changed the AD applicability to all Lycoming Engines reciprocating engines with carburetor part numbers listed in Table 1 of the AD.

### **Change to the Alternative Methods of Compliance (AMOC) Paragraph**

Since we issued the proposed AD, we found that we referenced the wrong office in the AMOC paragraph. We changed that sentence to state that the Manager, Atlanta Aircraft Certification Office, FAA, may approve AMOCs for this AD.

### **Change to Service Information**

Marvel-Schebler Aircraft Carburetors LLC has revised their Marvel-Schebler Emergency Service Bulletin (SB) No. SB-18, dated October 14, 2010, to Revision A, dated March 15, 2011. We reviewed Revision A, and determined that it also is acceptable. We changed the incorporated by reference paragraph k of the AD to include the original issue and Revision A.

## **Conclusion**

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We also determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

## **Costs of Compliance**

We estimate that this AD affects 10,700 engines installed on aircraft of U.S. registry. We also estimate that it will take about 0.5 work-hours per aircraft to perform the inspection, and that about 409 carburetors will need repair. Approximately 2 work-hours per carburetor are required to repair the carburetor. The average labor rate is \$85 per work-hour. Required parts will cost about \$600 per carburetor. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$769,680. Our estimate is exclusive of possible warranty coverage.

## **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):



**2012-03-07 Lycoming Engines (formerly Textron Lycoming Division, AVCO Corporation):**  
Amendment 39-16948; Docket No. FAA-2011-0533; Directorate Identifier 2011-NE-16-AD.

**(a) Effective Date**

This AD is effective March 27, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Lycoming Engines reciprocating engines with carburetor part numbers listed in Table 1 of this AD.

**Table 1—Part Numbers (Including All Dash Numbers) of Known Affected HA-6 Model Carburetors**

10-5219-XX	10-5224-XX	10-5230-XX	10-5235-XX	10-5253-XX
10-5255-XX	10-5283-XX	10-6001-XX	10-6019-XX	10-6030-XX

**(d) Unsafe Condition**

This AD was prompted by a report of a “machined-from-billet” HA-6 carburetor having a loose mixture control sleeve that rotated in the carburetor body causing restriction of fuel and power loss. We are issuing this AD to prevent engine in-flight shutdown, power loss, and reduced control of the airplane.

**(e) Compliance**

Comply with this AD within 50 flight hours after the effective date of this AD, unless already done.

**(f) Inspection**

Inspect the carburetor to determine the type of body the carburetor has. Use Marvel-Schebler Emergency Service Bulletin (SB) No. SB-18, dated October 14, 2010, or Revision A, dated March 15, 2011, Figure (3) to determine which type of body is used.

(g) If the carburetor has a die-cast body, no further action is required.

(h) If the carburetor has an affected “machined-from-billet” body, remove the carburetor; and replace the carburetor with:

(1) An HA-6 carburetor not listed in Table 1 of this AD; or

(2) An HA-6 carburetor that is listed in Table 1 but is exempted as described in paragraphs 1.A. and 1.B of Marvel-Schebler Emergency SB No. SB-18, dated October 14, 2010 or Revision A, dated March 15, 2011; or that has already been repaired using that Emergency SB.

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

The Manager, Atlanta Aircraft Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(j) Related Information**

For more information about this AD, contact Kevin Brane, Aerospace Engineer, Propulsion, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate; 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5582; fax: (404) 474-5606; email: kevin.brane@faa.gov.

**(k) Material Incorporated by Reference**

(1) 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:

(i) Marvel-Schebler Emergency Service Bulletin No. SB-18, dated October 14, 2010.

(ii) Marvel-Schebler Emergency Service Bulletin No. SB-18, Revision A, dated March 15, 2011.

(2) For service information identified in this AD, contact Marvel-Schebler Aircraft Carburetors LLC, 125 Piedmont Avenue, Gibsonville, NC 27249; phone: 336-446-0002; fax: 336-446-0007; email: customerservice@msacarbs.com; Web site: www.msacarbs.com.

(3) You may review copies of the 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.

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

Issued in Burlington, Massachusetts, on February 1, 2012.

Peter A. White,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.