



FAA
Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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

DATE: May 14, 2012

AD #: 2012-10-52

Emergency airworthiness directive (AD) 2012-10-52 is sent to owners and operators of Cessna 206, 207, and 210 airplanes with Hartzell Engine Technologies (HET) turbochargers, part numbers (P/Ns) 406610-0005 and 406610-9005, installed.

Background

This emergency AD was prompted by a report of an HET turbocharger causing an engine in-flight power rollback. Upon investigation, the turbocharger was found to have incorrectly located oil passages in the center housing, causing insufficient oil flow to the bearings. This condition, if not corrected, could result in turbocharger bearing seizure, failure of the turbocharger turbine shaft or wheel, and damage to the airplane.

Relevant Service Information

We reviewed Hartzell Engine Technologies Alert Service Bulletin (ASB) No. 047, dated May 8, 2012. The ASB identifies the part numbers and serial numbers of affected turbochargers and describes procedures for removing them from service.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other turbochargers of the same design. We are evaluating whether the affected population needs to expand to include supplemental type certificate and parts manufacturer approval installations and may take further action.

AD Requirements

This AD requires removing the affected turbochargers from service before further flight.

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.

Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2012-10-52 Hartzell Engine Technologies: Directorate Identifier 2012-NE-16-AD

(a) Effective Date

This Emergency AD is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

This emergency AD applies to the following Hartzell Engine Technologies (HET) turbochargers:

- (1) Turbocharger HET P/N 406610-0005 or P/N 406610-9005 with serial numbers listed in Table 1 of HET Alert Service Bulletin No. 047, dated May 8, 2012.
- (2) Turbochargers with P/N 406610-0005 or P/N 406610-9005 overhauled or repaired on or later than January 1, 2012, with the same turbocharger center housing P/N and date code H-0112.
- (3) Turbocharger center housings P/N 409836-0005 sold as piece parts which are in field/distributor inventory with date code H-0112.

These turbochargers are installed on, but not limited to, Cessna 206, 207, and 210 airplanes with Continental Motors, Inc TSIO-520-C, -G, -H, -M, and -R reciprocating engines installed.

(d) Unsafe Condition

This AD was prompted by a report of an HET turbocharger causing an engine in-flight power rollback. Upon investigation, the turbocharger was found to have incorrectly located oil passages in the center housing, causing insufficient oil flow to the bearings. This condition, if not corrected, could result in turbocharger bearing seizure, failure of the turbocharger turbine shaft or wheel, and damage to the airplane. We are issuing this AD to prevent turbocharger bearing seizure, failed turbocharger components, and damage to the airplane.

(e) Compliance

Before further flight, remove from service the turbochargers identified in paragraph (c) of this emergency AD, unless already done.

(f) Special Flight Permit

Special flight permits are prohibited.

(g) Alternative Methods of Compliance (AMOCs)

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

(h) Related Information

(1) For further information about this AD, contact: Christopher Richards, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, 2300 E. Devon Ave., Des Plaines, IL 60018; phone: 847-294-7156; fax: 847-294-7834; e-mail: christopher.j.richards@faa.gov.

(2) For copies of the service information referenced in this AD, contact: Hartzell Engine Technologies, LLC, 2900 Selma Highway, Montgomery, AL 36108, phone: 334-386-5400; fax: 334-386-5450; internet: http://www.hartzellenginetech.com/service_bulletins.html#turbos.

(3) 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.

Issued in Burlington, Massachusetts, on May 14, 2012.

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