ILMAILUHALLINTO
LUFTFARTSFÖRVALTNINGEN
FINNISH CIVIL AVIATION AUTHORITY

LENTOKELPOISUUSTIEDOTE

T 5329/08

29.4.2008

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Euroopan unionin yhteisen ilmailuviranomaisen EASA:n päätöksen 2/2003 mukaisesti suunnitteluvaltion lentokelpoisuusmääräyksen noudattaminen on ilma-aluksen jatkuvan lentokelpoisuuden edellytyksenä. Määräyksen mukaisen toimenpiteen saa tehdä ja kuitata, jollei Ilmailuhallinto määrää toisin, se jolla ilmailumääräyksen AIR M2-1, AIR M4-1, AIR M5-3, AIR M5-10, AIR M6-1, OPS M2-10, JAR-OPS 1 tai JAR OPS 3 mukaisesti on oikeus tehdä kyseisen ilma-aluksen tai -välineen määräaikaishuoltoja.

Suunnitteluvaltion lentokelpoisuusmääräys (Yhdysvallat) AD 2008-08-17

Kelly Aerospace Power Systems. Ahtimen tarkastus

Koskee: Oheisessa FAA AD2008-08-17 lueteltuja Kelly Aerospace Power systems (KAPS) turboahtimia.

Lentokelpoisuusmääräyksen vaatimat toimenpiteet:

Tarkasta turboahdin 10 lentotunnin kuluessa laskettuna 6.5.2008:sta tai seuraavassa määräaikaishuollossa, kumpi tulee ensin, oheisen AD2008-08-17 ohjeiden mukaisesti. Jos ahdin on viallinen vaihda se uuteen ennen seuraavaa lentoa.

Tehty toimenpide sekä suunnitteluvaltion lentokelpoisuusmääräyksen numero on merkittävä ilma-aluksen teknilliseen päiväkirjaan.

Jos ilma-aluksen omistaja, haltija tai käyttäjä haluaa korvata lentokelpoisuusmääräyksen vaatimat toimenpiteet muilla vastaavan turvallisuustason antavilla toimenpiteillä, voi hän jättää perustellun hakemuksen EASA:lle osoitteessa European Aviation Safety Agency, Postfach 10 12 53, D-50452 KÖLN, Saksa.

Alkuperäinen lentokelpoisuusmääräys on saatavissa osoitteesta:
www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgWebcomponents.nsf/HomeFrame?OpenFrameSet tai Federal Aviation Administration, Department of Transport, 800, Independence Avenue, SW, Washington DC, 20591, USA, faksi +14059544104.

2008-08-17

KELLY AEROSPACE POWER SYSTEMS

Amendment 39-15471

Docket No. FAA-2008-0314; Directorate Identifier 2008-NE-09-AD

PREAMBLE

Effective Date

(a) This airworthiness directive (AD) becomes effective May 6, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to the turbochargers referenced in paragraphs (c)(1) through (c)(15)(vi) of this AD:

(1) Kelly Aerospace Power Systems (KAPS) turbochargers, part number (P/N) 409170-0001 (Lycoming P/N LW-12463), installed on Lycoming Engines (L)TIO-540-J2B and (L)TIO-540-J2BD engines:

(i) With the engine serial numbers (SNs) listed in Table 1 of Lycoming Engines Mandatory Service Bulletin (MSB) No. 580, dated February 15, 2008; and

(ii) With the turbocharger SNs listed in KAPS MSB No. 029, dated February 1, 2008.

(iii) Lycoming Engines (L)TIO-540-J2B and (L)TIO-540-J2BD engines are installed on, but not limited to, Piper PA31-350 Navajo Chieftain, Piper T1020 airplanes, and Colemill Panther conversion airplanes using a 350 horsepower engine.

(2) KAPS turbochargers, P/N 465930-0003 (Teledyne Continental Motors (TCM) P/N 641672-3), installed on TCM GTSIO-520-L and GTSIO-520-N engines, with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(3) KAPS turbochargers, P/N 466412-0003 (TCM P/N 652964), installed on TCM TSIOL-550-A and TSIOL-550-C engines, with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(4) KAPS turbochargers, P/N 466412-0004, installed on RAM modifications only, with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(5) KAPS turbochargers, P/N 466412-0003 (TCM P/N 652964), installed on Cessna 414 airplanes with a TCM TSIOL-550-A or TSIOL-550-C engine (Supplemental Type Certificate (STC)

SA7633SW), with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(6) KAPS turbochargers, P/N 465930-0003 (TCM P/N 641672-3), installed on Cessna 421 Golden Eagle airplanes with a TCM GTSIO-520-L or GTSIO-52-N engine with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(7) KAPS turbochargers, P/N 465680-0004 (Cessna P/N C295001-0202), installed on TCM TSIO-520-AF or TSIO-520-P engines, with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(8) KAPS turbochargers, P/N 465930-0002 (TCM P/N 641672-2), installed on TCM GTSIO-520-M engines, with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(9) KAPS turbochargers, P/N 465680-0004 (Cessna P/N C295001-0202), installed on Cessna P210 Pressurized Centurion airplanes with a TCM TSIO-520-AF or TSIO-520-P engine, with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(10) KAPS turbochargers, P/N 465930-0002 (TCM P/N 641672-2), installed on Cessna 404 Titan airplanes with a TCM GTSIO-520-M engine, with the turbocharger SNs listed in KAPS MSB No. 030, Revision A, dated April 1, 2008.

(11) KAPS overhauled turbochargers, P/N 465930-9003, installed on TCM GTSIO-520-L or GTSIO-520-N engines, with the turbocharger SNs listed in KAPS MSB No. 031, dated February 28, 2008.

(12) KAPS overhauled turbochargers, P/N 409170-9001, installed on Lycoming Engines TIO-540-J2B; TIO-540-J2BD; TIO-540-N2BD, and LTIO-540-N2BD engines, with the turbocharger SNs listed in KAPS MSB No. 031, dated February 28, 2008.

(13) KAPS overhauled turbochargers, P/N 465680-9005, installed on Lycoming Engines TIO-540-V2AD and TIO-540-W2A engines, with the turbocharger SNs listed in KAPS MSB No. 031, dated February 28, 2008.

(14) KAPS overhauled turbochargers, P/N 465930-9002, installed on TCM GTSIO-520-M engines, with the turbocharger SNs listed in KAPS MSB No. 031, dated February 28, 2008.

(15) Also, the following KAPS turbochargers might have been overhauled or repaired by other than KAPS, that used a P/N 441977-0023S or P/N 441977-0025S turbine housing sold as a spare part, through the Aviall Company. These turbine housings have the date code of 1006 and might have been installed between October 2006 and January 25, 2008. The turbocharger data plates might include manufacturer's information other than KAPS information, such as, Garrett:

(i) P/N 409170-0001; installed on Lycoming Engines TIO-540-J2B; TIO-540-J2BD; TIO-540-N2BD; and LTIO versions of the noted engine models.

(ii) P/N 465680-0004; installed on TCM TSIO-520-AF and TSIO-520P engines.

(iii) P/N 465680-0005; installed on Lycoming Engines TIO-540-V2AD and TIO-540-W2A engines.

(iv) P/N 465930-0002; installed on TCM GTSIO-520-M engines.

(v) P/N 465930-0003; installed on TCM GTSIO-520-L and GTSIO-520-N engines.

(vi) P/N 465448-0004; installed on TCM TSIO-520-CE engines.

(vii) P/N 466412-0003; installed on TCM TSIOL-550-A and TSIOL-550-C engines. (viii) P/N 466412-0004; installed on engines modified by RAM.

Unsafe Condition

(d) This AD results from two reports of exhaust leakage occurring between the turbocharger turbine housing flange and the exhaust tube flange due to machining defects of the turbocharger turbine housing flange. We are issuing this AD to prevent hazardous amounts of carbon monoxide from entering the cabin, an increase in under-cowl temperatures hampering engine and accessory function, and loss of tailpipe retention, which could lead to an in-flight fire and loss of control of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within 10 hours time-in-service or at the next regular inspection interval, whichever occurs first, unless the actions have already been done.

Onetime Visual Inspection of Turbocharger

(f) Carefully remove the "V" band clamp from around the turbocharger turbine housing at the turbocharger exhaust outlet, taking care not to move the exhaust tube and tailpipe assembly.

(g) Visually inspect the area that was captured by the "V" band clamp. Use a feeler gauge at the split line between the turbine housing flange and the exhaust tube flange all around the circumference.

(h) The maximum gap must not exceed 0.005 inch.

(i) Before further flight, replace any turbocharger that exceeds the 0.005 inch maximum gap, with a serviceable turbocharger.

(j) If the maximum gap is not exceeded, metal stamp a 1/8" upper case "I" on the side of the turbocharger discharge flange. Information on the stamping location can be found in the MSBs referenced in this AD.

Definition

(k) For the purpose of this AD, a serviceable turbocharger is one that is not listed in the suspect SN lists of the Lycoming Engines MSB or KAPS MSBs referenced in this AD, or one that passes the visual inspection in this AD.

Alternative Methods of Compliance

(l) The Manager, Atlanta Aircraft Certification Office, has the authority to approve alternative

methods of compliance for this AD if requested using the procedures found in 14 CFR **39.19**.

Special Flight Permits

(m) Under **39.23**, we are limiting the special flight permits for this AD by the following condition:

(1) A special flight permit to fly the airplane to where the visual inspection can be done may be issued after the operator verifies that the turbocharger tailpipe assembly is secure.

(2) To verify, apply a side load and a vertical load to the tailpipe assembly by hand. No mechanical deflection is allowed.

(3) After verifying that the tailpipe assembly is secure, the operator can apply for a special flight permit from the FAA. The FAA office or person approving the permit must add this condition to the limitations of the special flight permit.

Previous Credit

(n) If you used Kelly Aerospace Power Systems MSB No. 030, dated February 15, 2008 before the effective date of this AD to identify the suspect population of turbochargers identified in applicability paragraphs (c)(2) through (c)(9) of this AD, you satisfied the requirements of those paragraphs in this AD.

Related Information

(o) Contact Kevin Brane, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, GA 30349; e-mail: kevin.brane@faa.gov; telephone (770) 703-6063; fax (770) 703-6097, for more information about this AD.

Material Incorporated by Reference

(p) You must use the service information specified in Table 1 of this AD to identify the suspect population of turbochargers being inspected by this AD. The Director of the Federal Register approved the incorporation by reference of the documents listed in Table 1 of this AD in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Lycoming, 652 Oliver Street, Williamsport, PA 17701; telephone (570) 323-6181; fax (570) 327-7101, or go on the Internet at http://www.Lycoming.Textron.com for a copy of their service information. Also, contact Kelly Aerospace Power Systems, 2500 Selma Highway, Montgomery, AL 36108, telephone (334) 386-5450; fax (334) 386-5450, or go on the Internet at http://www.kellyaerospace.com for a copy of their service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or 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.

Table 1 - Incorporation by Reference

Mandatory Service Bulletin (MSB) No.	Page	Revision	Date

Lycoming MSB No. 580 Total Pages: 6	ALL	Original	February 15, 2008
Kelly Aerospace Power Systems MSB No. 029 Total Pages: 4	ALL	Original	February 1, 2008
Kelly Aerospace Power Systems MSB No. 030 Total Pages: 5	ALL	A	April 1, 2008
Kelly Aerospace Power Systems MSB No. 031 Total Pages: 5	ALL	Original	February 28, 2008

FOR FURTHER INFORMATION CONTACT: Kevin Brane, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, GA 30349; e-mail: kevin.brane@faa.gov; telephone (770) 703-6063; fax (770) 703-6097.

Issued in Burlington, Massachusetts, on April 10, 2008.

Peter A. White, *Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.*