

determine its service history and the number of landings on the MLG shock strut cylinder.
 (2) For Group 3 airplanes identified in the service bulletin: Review the maintenance records to determine if the MLG cylinder on each Group 3 airplane has always been on a Group 3 airplane, and do the actions in paragraph (k) of this AD.

Inspection

(h) Inspect the MLG shock strut cylinders for cracks using the Option 1 or Option 2 non-destructive testing inspection described in the service bulletin. Inspect in accordance with the Accomplishment Instructions of the service bulletin. Do the detailed inspection before the accumulation of 60,000 total landings on the MLG, or at the applicable

grace period specified in Table 1 of this AD, whichever occurs later, except as provided by paragraph (k) of this AD. If the review of maintenance records is not sufficient to conclusively determine the service history and number of landings on the MLG shock strut cylinder, perform the initial inspection at the applicable grace period specified in Table 1 of this AD.

TABLE 1.—GRACE PERIOD AND REPETITIVE INTERVAL

Airplanes identified in the service bulletin as group	Grace period	Repetitive interval
1	Within 18 months or 650 landings after the effective date of this AD, whichever occurs first.	Intervals not to exceed 650 landings.
2	Within 18 months or 500 landings after the effective date of this AD, whichever occurs first.	Intervals not to exceed 500 landings.
3, except as provided by paragraph (k) of this AD.	Within 18 months or 2,500 landings after the effective date of this AD, whichever occurs first.	Intervals not to exceed 2,500 landings.
4	Within 18 months or 2,100 landings after the effective date of this AD, whichever occurs first.	Intervals not exceed 2,100 landings.

No Crack Indication Found

(i) If no crack indication is found during the inspection required by paragraph (h) of this AD, repeat the inspection at the applicable interval specified in Table 1 of this AD.

Related Investigative and Corrective Actions

(j) If any crack indication is found during any inspection required by paragraph (h) or (i) of this AD, before further flight: Confirm the crack indication by doing all applicable related investigative actions and doing the applicable corrective actions in accordance with the service bulletin. Repeat the inspection at the applicable threshold and interval specified in paragraph (h) of this AD.

MLG Cylinder Previously Installed on Group 4 Airplanes

(k) For MLG cylinders on Group 3 airplanes as identified in the service bulletin: If the MLG cylinder was previously installed on a Group 4 airplane, as identified in the service bulletin, or if the service history and number of landings cannot be determined, the MLG cylinder must be inspected at the grace period and repetitive interval that applies to Group 4 airplanes, as specified in Table 1 of this AD.

Actions Accomplished in Accordance With Original Issue of Service Bulletin

(l) Actions done before the effective date of this AD in accordance with Boeing Alert Service Bulletin DC9–32A350, dated December 3, 2004, are acceptable for compliance with the corresponding actions required by this AD.

Alternative Methods of Compliance (AMOCs)

(m) The Manager, Los Angeles Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

Material Incorporated by Reference

(n) You must use Boeing Alert Service Bulletin DC9–32A350, Revision 1, dated August 3, 2005, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1–L5A (D800–0024), for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL–401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741–6030, or go to <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on September 7, 2005.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
 [FR Doc. 05–18314 Filed 9–15–05; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2005–21864; Directorate Identifier 2005–NE–29–AD; Amendment 39–14276; AD 2005–19–11]

RIN 2120–AA64

Airworthiness Directives; Lycoming Engines (Formerly Textron Lycoming) AEIO–360, IO–360, O–360, LIO–360, LO–360, AEIO–540, IO–540, O–540, and TIO–540 Series Reciprocating Engines

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Lycoming Engines (formerly Textron Lycoming) AEIO–360, IO–360, O–360, LIO–360, LO–360, AEIO–540, IO–540, O–540, and TIO–540 series reciprocating engines rated at 300 horsepower (HP) or lower. This AD requires replacing certain crankshafts. This AD results from reports of 12 crankshaft failures in Lycoming 360 and 540 series engines rated at 300 HP or lower. We are issuing this AD to prevent failure of the crankshaft, which could result in total engine power loss, in-flight engine failure, and possible loss of the aircraft.

DATES: This AD becomes effective October 21, 2005. The Director of the Federal Register approved the incorporation by reference of certain

publications listed in the regulations as of October 21, 2005.

ADDRESSES: You can get the service information identified in this AD from Lycoming, 652 Oliver Street, Williamsport, PA 17701; telephone (570) 323-6181; fax (570) 327-7101, or on the Internet at <http://www.Lycoming.Textron.com>.

You may examine the AD docket on the Internet at <http://dms.dot.gov> or in Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Norm Perenson, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine & Propeller Directorate, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (516) 228-7337; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed airworthiness directive (AD). The proposed AD applies to Lycoming Engines (formerly Textron Lycoming) AEIO-360, IO-360, O-360, LIO-360, LO-360, AEIO-540, IO-540, O-540, and TIO-540 series reciprocating engines rated at 300 horsepower (HP) or lower. We published the proposed AD in the **Federal Register** on July 22, 2005 (70 FR 42282). That action proposed to require replacing certain crankshafts within 50 hours time-in-service or 6 months after the effective date of the proposed AD, whichever is earlier.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility Docket Offices between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in **ADDRESSES**. Comments will be available in the AD docket shortly after the DMS receives them.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Will Additional Engines and Crankshafts Be Affected in the Future

One commenter asks if additional serial numbered engines and crankshafts will be affected in the future.

At this time we do not anticipate that the affected population will increase,

but Lycoming and the FAA are monitoring crankshaft performance.

Affected Engines and Crankshafts

The same commenter asks why these engines and crankshafts are the only ones affected by the SB and AD.

Both the previous AD (2002-19-03) and this AD advise that the affected population of engines and crankshafts were manufactured in a specific time period. We are addressing that time period.

Suspect Crankshafts Should Be Either Tested or Replaced

One commenter states that suspect crankshafts should be either tested or replaced before further flight, because the problem with these crankshafts is similar to the problem that caused the crankshaft failures on the 540 engines.

We disagree. The compliance interval in this AD is based on an assessment of operating stresses, service experience, and duty cycle of the affected engine population. The compliance interval differs from that imposed in AD 2002-19-03 due to differences in these parameters.

Request To Include Lycoming TIO-540-AE2A and Other Unspecified Engine Models

One commenter requests that we include the Lycoming TIO-540-AE2A and other unspecified engine models in this AD. The commenter states that many of the TIO-540-AE2A engines have never been recalled or replaced yet should be, because recent litigation has shown that Lycoming's crankshaft end core sample test is insufficient.

We disagree. We have seen no evidence that refutes the validity of the test. Further, AD 2002-19-03 (the previous AD) effective on September 20, 2002, described two groups of crankshafts. We required one crankshaft group to be removed before further flight, and we required the other crankshaft group to have a sample of the crankshaft material tested. The crankshafts in each group were selected based on our evaluation of the risk both groups presented. Crankshafts from either group may be installed in the TIO-540-AE2A engine model. No failures of crankshafts listed in either group have occurred since.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD will affect 1,128 engines installed on aircraft of U.S. registry. We estimate that it will take the following work hours to perform the inspection:

Type of application	Work-hours per engine	Number of engines affected
Helicopter	12	200
Constant-Speed Propeller	3	557
Fixed-Pitch Propeller	1.5	371

We also estimate that it will take about 33 work hours to replace the crankshaft. We estimate the average labor rate is \$65 per work hour and that required parts for each engine will cost about \$16,218. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$18,594,724. Lycoming Engines informed us that they intend to supply the new parts at no charge, which may substantially reduce the estimated cost of this AD.

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;

Engine model	Manufacturer	Aircraft model
IO-360-A1B6 .....	.....	M-20-J
IO-360-A3B6D .....	.....	M20J-201
TIO-540-AF1B .....	.....	M20M TLS Bravo
	Moravan	Z143L Zlin
		Z242L Zlin
	Partenavia	P-68 Series Observer
IO-540-K1J5	Piper	600-A Aerostar
IO-540-S1A5 .....	.....	601-A, 601B & 601P Aerostar
IO-540-AA1A5 .....	.....	602P Sequoia
O-540-A1B5 .....	.....	PA-23-235 Aztec & PA-24-250 Comanche
	.....	PA-23-250 Aztec
	.....	PA-23-250 Aztec
IO-540-J4A5 .....	.....	PA-23-250 Aztec & PA-24-250 Comanche
IO-540-C1B5 .....	.....	PA-23-250T Turbo Aztec
TIO-540-C1A .....	.....	PA-24-150 Comanche
	.....	PA-24-250 Comanche
O-540-A1C5 .....	.....	PA-24-250 Comanche
O-540-A1D5 .....	.....	PA-24-260 Comanche
IO-540-D4A5 .....	.....	PA-24-260 Comanche
	.....	PA-24-260 Comanche
O-540-B2C5 .....	.....	PA-25-235 Pawnee
O-540-B2B5 .....	.....	PA-28-235 Cherokee
	.....	PA-28-235 Cherokee
IO-360-C1C6 .....	.....	PA-28R-201 Arrow
IO-540-M1A5 .....	.....	PA-31-300 Navajo
	.....	PA-32-260 Cherokee 6
IO-540-K1G5 .....	.....	PA-32-300 & PA-32-301 Saratoga
IO-540-K1A5 .....	.....	PA-32-300 Cherokee 6
IO-540-K1A5D .....	.....	PA-32-300 Cherokee 6
IO-540-K1G5D .....	.....	PA-32-300R Lance
	.....	PA-32-301R Saratoga
IO-360-C1E6 .....	.....	PA-34-200 Seneca I
IO-540-K1G5 .....	.....	PA-36-300 Brave
O-360-A1H6 .....	.....	PA-44-180
LO-360-A1H6 .....	.....	PA-44-180 Seminole
IO-540-K1K5 .....	.....	T-35 Pillan
	Robin	R-3000/235
O-540-F1B5	Robinson	R-44
	Rockwell	114
	Ruschmeyer	MF-85
	Saab	MFI-15 Safari or MFI-17 Supporter
	Scottish Avia	Bulldog
	Siai Marchetti	S-205
	Siai Marchetti	S-208 & SF-260
	Siai Marchetti	SF-260
	Siai Marchetti	SF-260
	Slingsby	Firefly T3A
	Socata	R-235 Rallye Cueurrier
	.....	Rallye 235CA
IO-540-C4D5D .....	.....	TB-20 Trinidad
	.....	TB-200
	.....	TB-21 & TB-21-TC Trinidad TC
TIO-540-AB1AD .....	.....	Glasair
IO-540-AB1A5	Stoddard Hamilton	Glasair III
IO-540-K1H5	Stoddard Hamilton	SX-300
IO-540-L1C5	Swearingen Aircraft	T-300 Skyfarmer
	Transava	L-70 Vinka
AEIO-360-A1B6	Valmet	WA4-21
	Wassmer	Aviation YA-1
	Yoeman	

Unsafe Condition

(d) This AD results from 12 crankshaft failures in Lycoming model 360 and 540 series engines rated at 300 HP or lower. We are issuing this AD to prevent failure of the crankshaft, which could result in total engine power loss, in-flight engine failure, and possible loss of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within 50 hours time-in-service or 6 months after the

effective date of this AD, whichever is earlier, unless the actions have already been done.

Engines Manufactured Before March 1, 1999

(f) If Lycoming Engines manufactured new, rebuilt, or overhauled your engine before March 1, 1999, and you haven't had the crankshaft replaced, no further action is required.

AEIO-540, IO-540, O-540, and TIO-540 Series Engines Manufactured New or Rebuilt, Overhauled, or That Had a Crankshaft Installed After March 1, 1999

(g) For AEIO-540, IO-540, O-540, and TIO-540 series engines manufactured new or rebuilt, overhauled, or that had a crankshaft installed after March 1, 1999, do the following:

(1) If Table 1 or Table 2 of Lycoming Mandatory Service Bulletin (MSB) No. 566, dated July 11, 2005, lists your engine serial

number (SN), use Table 4 to verify the crankshaft SN.

(2) If Table 4 of Lycoming MSB No. 566, dated July 11, 2005, lists your crankshaft SN, replace the crankshaft with a crankshaft that is not listed in Table 4 of Lycoming MSB No. 566, dated July 11, 2005.

AEIO-360, IO-360, O-360, LIO-360, and LO-360 Series Engines Manufactured New or Rebuilt, Overhauled, or That Had a Crankshaft Installed After March 1, 1999

(h) For AEIO-360, IO-360, O-360, LIO-360, and LO-360 series engines manufactured new or rebuilt, overhauled, or that had a crankshaft installed after March 1, 1999, do the following:

(1) If Table 3 of Lycoming MSB No. 566, dated July 11, 2005, lists your engine SN, use Table 4 to verify the crankshaft SN.

(2) If Table 4 of Lycoming MSB No. 566, dated July 11, 2005, lists your crankshaft SN, replace the crankshaft with a crankshaft that is not listed in Table 4 of Lycoming MSB No. 566, dated July 11, 2005.

Prohibition Against Installing Certain Crankshafts

(i) After the effective date of this AD, do not install any crankshaft that has a SN listed in Table 4 of Lycoming MSB No. 566, dated July 11, 2005, into any engine.

Alternative Methods of Compliance (AMOCs)

(j) The Manager, New York Aircraft Certification Office, has the authority to approve AMOCs for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(k) None.

Material Incorporated by Reference

(l) You must use Lycoming Mandatory Service Bulletin No. 566, dated July 11, 2005, to perform the actions required by this AD. The Director of the **Federal Register** approved the incorporation by reference of this service bulletin 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 on the Internet at <http://www.Lycoming.Textron.com> for a copy of this service information. You may review copies at the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001, on the Internet at <http://dms.dot.gov>, 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>.

Issued in Burlington, Massachusetts, on September 9, 2005.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 05-18323 Filed 9-15-05; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-22430; Directorate Identifier 2005-NE-34-AD; Amendment 39-14275; AD 2005-19-10]

RIN 2120-AA64

Airworthiness Directives; Turbomeca Arrius 2 F Turboshaft Engines

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

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Turbomeca Arrius 2 F turboshaft engines. This AD requires removing from service certain serial number (SN) fuel control units (FCUs) or replacing the constant delta pressure diaphragm in those FCUs. This AD results from a report of an accident in July 2005 involving a Eurocopter EC120B helicopter. We are issuing this AD to prevent an uncommanded engine in-flight shutdown on a single-engine helicopter, resulting in a forced autorotation landing or an accident. **DATES:** Effective October 3, 2005. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of October 3, 2005.

We must receive any comments on this AD by November 15, 2005.

ADDRESSES: Use one of the following addresses to comment on this AD:

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Turbomeca, 40220 Tarnos, France; telephone +33 05 59 74 40 00, fax +33 05 59 74 45 15, for the service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Christopher Spinney, Aerospace

Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The Direction Generale de L'Aviation Civile (DGAC), which is the airworthiness authority for France, notified the FAA that an unsafe condition may exist on Turbomeca Arrius 2 F turboshaft engines. The DGAC advises that a Eurocopter EC120B helicopter powered by an Arrius 2 F turboshaft engine experienced an uncommanded in-flight engine shutdown. An increase in fuel flow led to an increase in gas generator and power turbine speeds. Turbine blades separated from the disk due to the overspeed. Turbomeca determined that the fuel flow increase was caused by an improperly assembled and subsequent failure of the constant delta pressure (delta P) diaphragm in the FCU. Only certain types of constant delta P diaphragms have been identified as being capable of being improperly assembled. Engine serial numbers that may have this type of constant delta P diaphragm are listed in Turbomeca Alert Mandatory Service Bulletin (MSB) No. A319 73 4825, dated August 3, 2005. The manufacturer is making spare FCUs available as fast as possible and has established a rotatable pool of spares. After we reviewed the Turbomeca SB, we concluded that using the Turbomeca rotatable pool of spares as soon as practicable effectively manages the risk of another failure of the uninspected engine population. To this end, we are requiring that FCUs identified in the Turbomeca SB be replaced as soon as practicable but not to exceed February 28, 2006. Because the practicable compliance time may be quite short for some operators and the rotatable pool requires consistent participation, we are issuing this AD as final rule; request for comments.

Relevant Service Information

We have reviewed and approved the technical contents of Turbomeca Alert MSB No. A319 73 4825, dated August 3, 2005. That MSB lists the affected FCUs by SN and describes procedures for removing affected FCUs from service or replacing constant delta P diaphragms in those FCUs. The DGAC classified this service bulletin as mandatory and issued AD No. F-2005-143, dated August 17, 2005, and AD No. F-2005-143 R1, dated August 31, 2005, in order to ensure the airworthiness of these Arrius 2 F turboshaft engines in France.