TABLE 1.—APPLICABILITY—Continued

Bombardier model	Serial Nos.
(2) CL-600-2D24 (Regional Jet Series 900) series airplanes	15001 through 15990 inclusive.

Unsafe Condition

(d) This AD resulted from reports of hydraulic pressure loss in either the number 1 or number 2 hydraulic system due to breakage or leakage of hydraulic lines in the aft equipment bay and reports of cracks on the aft pressure bulkhead web around these feed-through holes. We are issuing this AD to prevent loss of hydraulic pressure, which could result in reduced controllability of the airplane, and to detect and correct cracks on the aft pressure bulkhead web, which could result in reduced structural integrity of the aft pressure bulkhead.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Restatement of Requirements of AD 2005– 13–02

Revision of Airworthiness Limitations Section

(f) Within 30 days after July 27, 2005 (the effective date of AD 2005-13-02), revise the Airworthiness Limitations section of the Instructions of Continued Airworthiness by inserting a copy of the new repetitive inspections and an optional terminating action of Bombardier CRJ 700/900 Series Temporary Revision (TR) MRM2-129, dated June 1, 2004, into Section 1.4, Part 2 (Airworthiness Limitations), of Bombardier Regional Jet Model CL-600-2C10 and CL 600-2D24 Maintenance Requirements Manual, CSP B-053. Thereafter, except as provided in paragraph (h)(2) or (i) of this AD, no alternative structural inspection intervals may be approved for this aft pressure bulkhead and pylon pressure pan in the vicinity of the hydraulic fittings and the hydraulic tube adapters.

(g) When the information in TR MRM2–129, dated June 1, 2004, is included in the general revisions of the Maintenance Requirement Manual, the general revisions may be inserted into the Airworthiness Limitations section of the Instructions of Continued Airworthiness and this TR may be removed.

Corrective Action

(h) If any crack is found during any inspection done in accordance with Bombardier CRJ 700/900 Series TR MRM2–129, dated June 1, 2004, or the same inspection specified in the general revisions of the Maintenance Requirement Manual, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD.

(1) Before further flight, repair the crack in accordance with a method approved by either the Manager, New York Aircraft Certification Office (ACO), FAA; or Transport Canada Civil Aviation (TCCA) (or its delegated agent).

- (2) At the applicable time specified in paragraph (h)(2)(i) or (h)(2)(ii) of this AD, revise the Airworthiness Limitations section of the Instructions of Continued Airworthiness by inserting a copy of the inspection requirements for the repair required by paragraph (h)(1) of this AD into Section 1.4, Part 2 (Airworthiness Limitations), of Bombardier Regional Jet Model CL-600-2C10 and CL-600-2D24 Maintenance Requirements Manual, CSP B-053. Thereafter, except as provided in paragraph (i) of this AD, no alternative structural inspection intervals may be approved for this aft pressure bulkhead and pylon pressure pan in the vicinity of the hydraulic fittings, and the hydraulic tube adapters.
- (i) If the repair required by paragraph (h)(1) of this AD is done after the effective date of this AD: Revise the Airworthiness Limitations section within 12 months after the repair.
- (ii) If the repair required by paragraph (h)(1) of this AD was accomplished before July 27, 2005: Revise the Airworthiness Limitations section within 12 months after the repair or 30 days after July 27, 2005, whichever occurs later.

Alternative Methods of Compliance (AMOCs)

(i)(1) The Manager, New York ACO, FAA, ATTN: Pong Lee, Aerospace Engineer, Airframe and Propulsion Branch, ANE–171, FAA, New York ACO, 1600 Stewart Avenue, suite 410, Westbury, New York 11590; telephone (516) 228–7324; fax (516) 794–5531; has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

Related Information

(j) Canadian airworthiness directive CF–2004–14, dated July 20, 2004, also addresses the subject of this AD.

Issued in Renton, Washington, on May 8, 2008

Michael J. Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service. [FR Doc. E8–11112 Filed 5–16–08; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0052; Directorate Identifier 2008-NE-01-AD]

RIN 2120-AA64

Airworthiness Directives; Engine Components Inc. (ECi) Reciprocating Engine Cylinder Assemblies

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

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for Lycoming Engines (formerly Textron Lycoming) models 320, 360, and 540 series, "Parallel Valve" reciprocating engines, with certain Engine Components Inc. (ECi) cylinder assemblies, part number (P/N) AEL65102 series "Titan", installed. This proposed AD would require initial and repetitive visual inspections and compression tests to detect cracks at the head-to-barrel interface, replacement of cylinder assemblies found cracked, and replacement of certain cylinder assemblies, at new reduced times-inservice. This proposed AD results from reports of 45 failures with head separations of ECi cylinder assemblies. We are proposing this AD to prevent loss of engine power due to cracks at the head-to-barrel interface in the cylinder assemblies and possible engine failure caused by separation of a cylinder head, which could result in loss of control of the aircraft.

DATES: We must receive any comments on this proposed AD by July 18, 2008. **ADDRESSES:** Use one of the following addresses to comment on this proposed AD.

- Federal eRulemaking Portal: Go to http://www.regulations.gov and follow the instructions for sending your comments electronically.
- *Mail:* Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5

p.m., Monday through Friday, except Federal holidays.

Fax: (202) 493–2251.

You can get the service information identified in this proposed AD from Engine Components, Inc., 9503 Middlex, San Antonio, TX 78217; Phone (800) 324–2359; fax (210) 820–8102.

FOR FURTHER INFORMATION CONTACT:

Peter W. Hakala, Aerospace Engineer, Special Certification Office, FAA, Rotorcraft Directorate, 2601 Meacham Blvd., Fort Worth, TX 76193; e-mail: peter.w.hakala@faa.gov; telephone (817) 222-5145; fax (817) 222-5785.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send us any written relevant data, views, or arguments regarding this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2008-0052; Directorate Identifier 2008-NE-01-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to http:// www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Examining the AD Docket

You may examine the AD docket on the Internet at http:// www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

Discussion

In November 2005, we started receiving reports from the National Transportation Safety Board, FAA Flight Standards District Offices, and other FAA offices, of failures of ECi cylinder assemblies, P/N AEL65102 series, installed on Lycoming Engines models 320, 360, and 540 series, parallel valve reciprocating engines. ECi holds the Parts Manufacturer Approval (PMA) for the affected cylinder assemblies. Parallel valve Lycoming reciprocating engines are identified by the intake and exhaust valves in a parallel configuration. We investigated the failures and determined they were caused by fatigue cracking of the aluminum alloy cylinder head at the head-to-barrel interface.

We identified two manufacturing groups of cylinder assemblies requiring action. Group "A" cylinder assemblies (serial number (SN) 1138-02 through SN 35171-22) require initial and repetitive visual inspections and compression tests, and removal from service at 2,000 operating hours time-inservice (TIS), unless installed in helicopters. If installed in helicopters, group "A" cylinder assemblies require the same actions, but must be removed from service at 1,500 operating hours TIS. The helicopter ECi cylinder assemblies are removed at 1,500 hours, because the more strenuous operating conditions require a shorter time between overhaul (TBO). Group "B" cylinder assemblies (SN 35239-01 through SN 37016-28) require the same initial visual inspection and compression test, but must be removed from service before exceeding 350 operating hours TIS. All of the affected cylinder assemblies are marked with cylinder head P/N AEL85099. This unsafe condition, if not corrected, could result in loss of engine power due to cracks in the cylinder assembly and possible engine failure caused by cylinder head separation.

FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other products of this same type design.

We are proposing this AD, which would require:

- Determining if Group "A" or Group "B" ECi cylinder assemblies, P/N AEL65102 series "Titan", with cylinder head P/N AEL85099, are installed on your engine.
- For any Group "A" cylinder assembly, performing initial and

repetitive visual inspections and compression tests, and replacement not later than 2,000 operating hours TIS or within 25 operating hours TIS if the cylinder assembly exceeds 2,000 operating hours TIS on the effective date of the proposed AD.

• For any Group "A" cylinder assembly installed in a helicopter, performing the same initial and repetitive visual inspections and compression tests, but replacement not later than 1,500 operating hours TIS or within 25 operating hours TIS if the cylinder assembly exceeds 1,500 operating hours TIS on the effective date of the proposed AD.

• For any Group "B" cylinder assembly, performing the same initial visual inspection and compression test, and replacement not later than 350 operating hours TIS or within 25 operating hours TIS if the cylinder assembly exceeds 350 operating hours TIS on the effective date of the proposed

Costs of Compliance

We estimate that this proposed AD would affect 13,000 ECi cylinder assemblies installed in aircraft of U.S. registry. The visual inspection and compression tests would take about 4 work-hours for each engine. An individual cylinder replacement would require \$1,100 for parts and 6 workhours. Lycoming engines with a set of 4 ECi cylinders would require 12 workhours for the cylinder replacement. Lycoming engines with a set of 6 ECi cylinders would require 16 work-hours for the cylinder replacement. We estimate 18 percent of the affected population of cylinders will be replaced. The total cost of the proposed AD to U.S. operators to be \$7,952,000. Our estimate is exclusive of any 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

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 the proposed AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- 3. Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD. You may get a copy of this summary at the address listed under **ADDRESSES**.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Under the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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:

Engine Components Inc. (ECi): Docket No. FAA–2008–0052; Directorate Identifier 2008–NE–01–AD.

Comments Due Date

(a) The Federal Aviation Administration (FAA) must receive comments on this airworthiness directive (AD) action by July 18, 2008.

Affected ADs

(b) None.

Applicability

- (c) This AD applies to the Lycoming Engines (formerly Textron Lycoming) models 320, 360, and 540 series, "Parallel Valve", reciprocating engines listed in Table 1 of this AD, with ECi cylinder assembly, part number (P/N) AEL65102 series "Titan", and with cylinder head, P/N AEL85099, installed.
- (1) The applicable cylinder assembly serial numbers (SNs) are SN 1138–02 through SN 35171–22, (referred to in this AD as Group "A" cylinder assemblies); and
- (2) $\dot{\text{SN}}$ 35239–01 through SN 37016–28 (referred to in this AD as Group "B" cylinder assemblies).
- (3) Note that the cylinder assembly P/N is at the crankcase end of the cylinder assembly, and might be difficult to see. As a guide in determining if your cylinder assemblies are affected, all affected cylinder assemblies have cylinder head P/N AEL85099. The cylinder head P/N is at the top of the cylinder head, near the intake and exhaust valve springs, and is easier to locate than the cylinder assembly P/N.
- (4) Note that the set of numbers appearing on the cylinder, above and to the left of the SN, in the form of "123456" is not used for determining applicability.

TABLE 1.—ENGINE MODELS

Cylinder assembly part No.	Installed on engine models
AEL65102-NST04	D1C, D1D, D1F, D2A, D2B, D2C, D2F, D2G, D2H, D2J, D3G, E1A, E1B, E1C, E1F, E1J, E2A, E2B, E2C, E2D, E2E, E2F, E2G, E2H, E3D, E3H. IO-320-A1A, A2A, B1A, B1B, B1C, B1D, B1E, B2A, D1A, D1AD, D1B, D1C, E1A, E1B, E2A, E2B. AEIO-320-D1B, D2B, E1A, E1B, E2A, E2B.
	AIO-320-A1A, A1B, A2A, A2B, B1B, C1B. LIO-320-B1A.
AEL65102-NST05	IO-320-C1A, C1B, C1F, F1A.
AELCE100 NOTOS	LIO-320-C1A.
AEL65102-NST06	O–320–A1A, A2A, A2B, A2C, A3A, A3B, A3C, E1A, E1B, E2A, E2C, (also, an O–320 model with no suffix).
AEL65102-NST07	IO-320-B1A, B1B.
	LÍO-320-B1Á.
AEL65102-NST08	
AEL65102-NST10	O-360-A1A, A1C, A1D, A2A, A2E, A3A, A3D, A4A, B1A, B1B, B2A, B2B, C1A, C1C, C1G, C2A, C2B, C2C, C2D,
	D1A, D2A, D2B. IO-360-B1A, B1B, B1C.
	HO–360–A1A, B1A, B1B.
	HIO-360-B1A, B1B.
	AEIO-360-B1B.
	O–540–A1A, A1A5, A1B5, A1C5, A1D, A1D5, A2B, A3D5, A4A5, A4B5, A4C5, A4D5, B1A5, B1B5, B1D5, B2A5, B2B5, B2C5, B2C5D, B4A5, B4B5, B4B5D, D1A5, E1A, E4A5, E4B5, E4C5, F1A5, F1B5, G1A5, G2A5.
AELGE100 NOT10	IO-540-C1B5, C1C5, C2C, C4B5, C4B5D, C4C5, D4A5, D4B5, N1A5D.
AEL03102-N3112	O-360-A1A, A1AD, A1D, A1F, A1F6, A1F6D, A1G, A1G6, A1G6D, A1H, A1H6, A1J, A1LD, A1P, A2A, A2D, A2F, A2G, A2H, A3A, A3AD, A3D, A4A, A4AD, A4D, A4G, A4J, A4JD, A4K, A4M, A4N, A4P, A5AD, B1A, B2C, C1A, C1C, C1E, C1F, C1G, C2A, C2B, C2C, C2D, C2E, C4F, C4P, D2A, F1A6, G1A6.
	HO-360 -C1A.
	LO_360_A1G6D, A1H6.
	HIO-360-B1A, B1B, G1A.
	LTO–360–A1A6D. TO–360–A1A6D.
	10–360–818, B1BD, B1D, B1E, B1F, B1F6, B1G6, B2E, B2F, B2F6, B4A, E1A, L2A, M1A, M1B.
	AEIO-360-B1B, B1D, B1E, B1F, B1F6, B1G6, B1H, B2F, B2F6, B4A, H1A, H1B.
	O-540-A4D5, B2B5, B2C5, B2C5D, B4B5, B4B5D, E4A5, E4B5, E4B5D, E4C5, G1A5, G1A5D, G2A5, H1A5, H1A5D,
	H1B5, H1B5D, H2A5, H2A5D, H2B5D.

TABLE 1.—ENGINE MODELS—Continued

Cylinder assembly part No.	Installed on engine models	
	IO-540-C4B5, C4B5D, C4D5, C4D5D, D4A5, D4B5, D4C5, N1A5, N1A5D, T4A5D, T4B5, T4B5D, T4C5D, V4A5, V4A5D.	
	AEIO-540-D4A5, D4B5, D4C5, D4D5.	
AEL65102-NST26	IO-540-J4A5, R1A5.	
	TIO-540-C1A, E1A, G1A, H1A.	
AEL65102-NST38	IO-360-F1A.	
	TIO-540-AA1AD, AB1AD, AB1BD, AF1A, AG1A, AK1A, C1A, C1AD, K1AD.	
	LTIO-540-K1AD.	
AEL65102-NST43	O–360–J2A.	
	O–540–F1B5, J1A5D, J1B5D, J1C5D, J1D5D, J2A5D, J2B5D, J2C5D, J2D5D, J3A5, J3A5D, J3C5D.	
	IO-540-AB1A5, W1A5, W1A5D, W3A5D.	
AEL65102-NST44	O-540-L3C5D.	

For information, the Lycoming Engines (formerly Textron Lycoming) models 320,

360, and 540 series, "Parallel Valve", reciprocating engines are installed on, but

not limited to, the aircraft listed in the following Table 2:

TABLE 2.—ENGINES INSTALLED ON, BUT NOT LIMITED TO

	TABLE 2.—LINGINES INSTALLED ON, BUT NOT LIMITED TO
Engine models	Installed on, but not limited to
O-320-A1A	Piper Aircraft: Tri-Pacer (PA-22 "150", PA-22S "150"), Apache (PA-23), Pawnee (PA-25). Doyn Aircraft: Doyn-Cessna (170, 170A, 170B). Mooney Aircraft: Mark (20A). Dinfia: Ranquel (1A-46). Simmering-Graz Pauker: Flamingo (SGP-M-222). Aviamilano: Scricciolo (P-19).
	Vos Helicopter Co.: Spring Bok.
O-320-A1B	Piper Aircraft: Tri-Pacer (PA-22 "150", PA-22S "150"), Apache (PA-23). Doyn Aircraft: Doyn-Cessna (170, 170A, 170B). S.O.C.A.T.A.: Horizon (Gardan).
O-320-A2A O-320-A2B	bean (PA-22 "150"), Pawnee (PA-25). Intermountain Mfg. Co.: Call Air Texas (A-5, A-5T). Lake Aircraft: Colonial (C-1). Rawdon Bros.: Rawdon (T-1, T-15, T-15D). Shinn Engineering: Shinn (2150-A). Dinfia: Ranquel (1A-46). Neiva: (1PD-5802). Sud: Gardan-Horizon (GY-80). LaVerda: Falco (F8L Series II, America). Malmo: Vipan (MF1-10). Kingsford Smith: Autocrat (SCRM-153). Aero Commander: 100.
	Robinson: R–22. Varga: Kachina 2150A.
O-320-A2C	Robinson: R–22. Cicare: Cicare AG. Bellanca Aircraft: Citabria 150 (7GCAA), Citabria 150S (7GCBC).
O-320-A2D	
O-320-A3A	Doyn Aircraft: Doyn-Cessna (170, 170A, 170B). Corben-Fettes: Globe Special (Globe GC–1B).
O-320-A3B	
O-320-B1A	Piper Aircraft: Apache (PA–23 "160"). Doyn Aircraft: Doyn-Cessna (170, 170A, 170B). Malmo: Vipan (MF1–10).
O-320-B1B	
O-320-B2B	Piper Aircraft: Tri-Pacer (PA-22 "160", PA-22S "160").
O-320-B2C O-320-B2D	Robinson: R–22.

TABLE 2.—ENGINES INSTALLED ON, BUT NOT LIMITED TO—Continued

C-920-B28		TABLE 2.—ENGINES INSTALLED ON, BUT NOT LIMITED TO—CONTINUED
O-320-B3A — Piper Aircraft. Apache (PA-28 *160"). Doyn Aircraft. Doyn Cosen (170, 170A, 170B). Piper Aircraft. Apache (PA-28 *160"). Doyn Aircraft. Doyn Cosen (170, 170A, 170B). Doyn Aircraft. Apache (PA-28 *160"). Doyn Aircraft. Apache (PA-28 *160"). Piper Aircraft. Apache (PA-28 *160"). Sud. Gardan (GY-69"). Piper Aircraft. College (PA-28 *160"). Super Aircraft. College (PA-28 *160"). Sud. Gardan (GY-69"). Piper Aircraft. College (PA-28 *160"). Sud. Gardan (GY-69"). Sud. G	Engine models	Installed on, but not limited to
O-320-B38		
O-320-B36	U-320-B3A	
O-320-CTA Suid: Gardan (GY90-160). Piper Aircraft. Apache (PA-23 "160"). O-320-C18 Piper Aircraft. Apache (PA-23 "160"). O-320-C38 Piper Aircraft. Apache (PA-23 "160"). O-320-C38 Piper Aircraft. Apache (PA-23 "160"). O-320-D1A Suid: Gardan (GY-80). Suid: Gardan (GY-80). O-320-D1A Suid: Gardan (GY-80). Suid: Gardan (GY-80). O-320-D2A Suid: Gardan (GY-80). Suid: Gardan (GY	O-320-B3B	
O-320-C1A		
C-320-C1B	O-320-C1A	
O-320-C3A Piper Aircraft: Apache (PA-23 *160"). O-320-D17 Sud: Gardan (G7-80). O-320-D17 Sud: Gardan (G7-80). O-320-D18 Singsby: T67 Firefly. Piper Aircraft: Apache (PA-23 *160"). S. O-A21-D18 Singsby: T67 Firefly. Piper Aircraft: Cherokee (PA-285 *160"). Robin: Major (DR400-140B), Chevalier (DR-360), (R-3140). S. O-CA-TA: Tampion: District (DR-360), (R-3140). S. O-CA-TA: Supplied. S. O-SAD-D20 Designation: District (DR-360). S. O-CA-TA: Supplied. S. O-SAD-D21 Cessna Aircraft: Skyhawki 172. Piper Aircraft: Warnor II, Cadder (PA-28-161). S. O-SAD-D24 Grant: Warnor II, Cadder (PA-28-161). S. O-SAD-D25 MB B. Messenschmill: Boelkow-Blohm): Monsun (BO-209-B). S. O-SAD-D26 MB B. Messenschmill: Boelkow-Blohm): Monsun (BO-209-B). S. O-SAD-D27 MB B. Messenschmill: Globelow-Blohm): Monsun (BO-209-B). S. O-CA-TA: Super Ralibye (MS-886), Ralibye Commodore (MS-892). Sish-Marchatti (S-202). F. F. A.: Bravo (AS-20215). Particle (Solver): Sish-Marchatti (S-202). F. F. A.: Bravo (AS-20215). Particle (Solver): Sish-Marchatti (S-202). F. F. A.: Bravo (AS-20215). Particle (Solver): Sish-Marchatti (S-202). Particle (Solver): Sish-Marchatti (Solver): Sish-Marchatti (Solver): Sish-Marchatti (Solver): Sish-Marchatti (Solver): Sish-Marchatti (Solver): Sish-Marchatti (Solver): S		Riley Aircraft: Rayjay (Apache).
O-320-D1A Suid: Gardan (GY-90) Gyroflug: Speed Cancard Grob. 617 C-320-D1F Slingsby: Tof: Chrokee (PA-28 *160*) C-320-D2A Suid: Gardan (GY-90) Slingsby: Tof: Chrokee (PA-28 *160*) So. O-A.T.A.: Tampico TB9. Slingsby: Tof: Frefly Daelwyler: MD-3-160. Nash Arcarfat Ltd: Evertel. Avologit: P660 Delta. General Avair: Program (PA-28) Suingsby: Tof: Chrokee (PA-28) Suings: Tof: Chrokee		
O-320-D1A Sid: Gardan (GV-80). Gyroftug: Speed Cancard. Grob. G115. Singsby: T67 Firelly. Singsby: T67 Firelly. Piper Aircraft: Cherokee (PA-28S "160"). Robin: Mighigr (DN400-140B). Singsby: T67 Firelly. Daetwijer: MD-3-160. Nash Aircraft List: Petrel. Avoiloght: P66D Delta. General Avia: Pinguino. Beech Aircraft: Musiketier (M-23). Piper Aircraft: Cherokee (PA-28 *160"). Robin: Mighr (DR-340), Sitar, Bagheera (GY-100-155). S.O.C.A.T.A.: Super Raiple (MS-286), Railye Commodore (MS-892). Siat-Marchetti: (S-202). F. F.A.: Farox (AS-20215). Partensals Cours (FABB). Bucker (131 APM). Partensals Cours (FABB). Bucker (131 APM). Partensals Cours (FABB). Bucker (131 APM). Partensals Cours (FABB). M.B.B.: Monsun (BO-200-B). Wassers Pacific (WA-51). American Aviation Corp.: Traveler. Piper Aircraft: Cherokee (140). Beech Aircraft. Musiketier III (M-28III). M.B.B.: Monsun (BO-200-B). Wassers Pacific (WA-51). American Aviation Corp.: Traveler. Piper Aircraft: Cherokee (140). Piper Aircraft: Cherokee (140). Piper Aircraft: Cherokee (140). Piper Aircraft: Trinc Commonche (PA-30). Piper Aircraft: Cherokee (140). Piper Aircraft: Trinc Commonche (PA-30). Piper Aircraft: Trinc Co		
O-320-D1F Singsby: 167 Firelly. O-320-D2A Piper Aircraft: Cherokee (PA-288 "160"). Robin: Major (DR400-1408). Chevalier (DR-360). (R-3140). S. O. C. A.T.A.: Tampico TB9. Singsby: T670 Firelly. Nash Aircraft: List: Petrel. Avaiding P68D Delta. General Avia: Pinguino. Beech Aircraft: Musketeer (M-23). Piper Aircraft: Musketeer (M-23). Piper Aircraft: Musketeer (M-28). Piper Aircraft: Musketeer (M-28-28-160"). O-320-E14 MB B.B.: Monsun (BO-209-B). MB B.B.: Monsun (BO-209-B). Piper Aircraft: Cherokee (PA-28-160"). Robin: Major (DR-340), Sitar, Bagheera (GY-100-135). S.O.C.A.T.A.: Super Ralley (MS-486), Rallye Commodore (MS-892). Sial-Marchetti: (S-202). F. F.A.: Errow (AS-20215). F. F.A.: Errow (AS-20215). P. F.A.: Errow (AS-20215). P. F.A.: Errow (AS-20215). P. F.A.: Errow (AS-20215). P. F.A.: Brow (AS-20215). P. F.A.: B		Sud: Gardan (GY–80).
O-320-D2A Slingsby; T67 Firelly. O-320-D2A Piper Aircraft: Cherokee (PA-28S "160"). Robin: Major (DR400-140B), Chevalier (DR-360), (R-3140). S.O.C.A.T.A.: Tampior TB9. Slingsby: T67C Firelly. Daethyler MD-3-160. Nash Aircraft Lid.: Petrol. Activity of Mash Aircraft Lid.: Petrol		, , , , ,
Riobin: Major (DR400-140B), Chevalier (DR-360), (R-3140), S.O.C.A.T.A.: Tampio: TB9. Slingsby: T87.C Firefly. Daetwyler: MD-3-160. Nash Aircraft Ltd:: Petrol. Delta. Aviolight: P66D Delta. General Avia: Pinguino. Beech Aircraft. Musketer (M-23). Piper Aircraft. Cherokee (PA-28-160"). Piper Aircraft. Cherokee (PA-28-160"). Piper Aircraft. Cherokee (PA-28-161). O-320-E13. Piper Aircraft. Warrior II, Cadet (PA-28-161). O-320-E14. M.B.B.: Monsun (BC-209-B). Piper Aircraft. Cherokee (PA-28-161). O-320-E15. M.B.B.: Monsun (BC-209-B). Piper Aircraft. Cherokee (PA-28-160"). Piper Aircraft. Musketeer III (M-23II). Piper Aircraft. Sport. Piper Aircraft. Twin Comanche (PA-30). Piper Aircraft. Piper Aircraft. Twin Comanche (PA-30). Piper Aircraft. Piper	O-320-D1F	
S.O.C.A.T.A.: Tampico TB9. Singsty: Te7C Firefly, Daetwyler: MD-3-180. Nash Aircraft Ltd: Petrel. Aviolight: P6ED Deta. General Avis: Pirguino. D-320-D28 Beech Aircraft: Musketeer (M-23). Beech Aircraft: Musketeer (M-23). Piper Aircraft: Cherokee (PA-28 "160"). O-320-D23. — Piper Aircraft: Warror II, Cadet (PA-28-161). O-320-E10 M.B.B. (Messerschmith Boelkow-Blohm): Monsun (BO-209-B). O-320-E11 M.B.B. (Messerschmith Boelkow-Blohm): Monsun (BO-209-B). O-320-E2A — Piper Aircraft: Cherokee (PA-28 "140", PA-28 "150"). Pobin: Major (DR-3-40), Star, Bagheera (GY-100-15). S.O.C.A.T.A.: Super Rallyle (MS-886), Rallye Commodore (MS-892). Siai-Marchetti (S-202), F.F.A.: Bravo (AS-202/15). Partaneava: Oscar (P66B), Bucker (131 APM). Aeromot: Paulistina P-26. O-320-E2C — Beech Aircraft: Musketeer III (M-23II). M.B.B.: Monsun (BO-209-B). O-320-E2P — Cassna Aircraft: Cardinal (172-L, 177). O-320-E2F — M.B.B.: Monsun (BO-209-B). O-320-E2D — M.B.B.: Monsun (BO-209-B). O-320-E2D — M.B.B.: Monsun (BO-209-B). Deech Aircraft: Sprand (172-L, 177). O-320-E2A — Piper Aircraft: Cherokee (140). Beech Aircraft: Aircraft (172-L, 177). O-320-E2B — Piper Aircraft: Twin Comanche (PA-30). IO-320-B2A — Piper Aircraft: Twin Comanche (PA-30). IO-320-B2A — Piper Aircraft: Twin Comanche (PA-30). IO-320-B2A — Piper Aircraft: Twin Comanche (PA-30). IO-320-B1D — Ted Smith Aircraft: Aerostar. IO-320-E1B — Belanca Aircraft. O-320-E2B — Belanca Aircraft. Champion Aircraft. Bellanca Aircraft. Champion Aircraft. Bellanca Aircraft. Champion Aircraft. Bellanca Aircraft. Champion Aircraft. Champion Aircraft. Bellanca Aircraft. Champion Ai	O-320-D2A	
Slingsby: T67C Firefly.		
Nash Áircraft Ltd.: Petrel. Aviolight: P66D Delta. Aviolight: P66D Delta. General Avia: Pinguino.		
Aviolight P66D Delta		
General Avia: Pinguino.		
Piper Aircraft: Cherokee (PA-28 "160"),		General Avia: Pinguino.
O-320-D2J — Cessna Aircraft: Skyhawk 172. O-320-E1A — Grob: G115. O-320-E1C — M.B.B. (Messerschmitt-Boelkow-Biohm): Monsun (BO-209-B). O-320-E1F — M.B.B. (Messerschmitt-Boelkow-Biohm): Monsun (BO-209-B). O-320-E2A — Piper Aircraft: Varbrokee (PA-28-"140", PA-28 "150"). Robin: Major (DR-340), Sitar, Bagheera (GY-100-135). S.O.C.A.T.A.: Super Rallye (MS-886), Rallye Commodore (MS-892). Sial-Marchetti: (S-202). F.F.A.: Bravo (AS-202/15), Partenavia: Oscar (P66B), Bucker (131 APM). Aeromot: Paulistian P-56. Pezetei: Koliber 150. D-320-E2C — Beech Aircraft: Musketeer III (M-23III). M.B.B.: Monsun (BO-209-B). Cessna Aircraft: Cardinal (172-I, 177). O-320-E2F — M.B.B.: Monsun (BO-209-B). Wassmer Pacific (WA-51). AB.B.: Monsun (BO-209-B). Wassmer Pacific (WA-51). D-320-E30 — Piper Aircraft: Aircraft (PA-30). D-320-B2A — Piper Aircraft: Twin Comanche (PA-30). D-320-B1D — Piper Aircraft: Aircraft (APO-30). D-320-B1D — Piper Aircraft: Aircraft (APO-30). D-320-B1D — Piper Aircraft: Aircraft (APO-30). D-320-B1D — M.B.B.: Monsun (BO-209-C). D-320-B1B — Blanca Aircraft. Champion Aircraft. Deathalon (BKCAB). Beck Aircraft. Twin Comanche (PA-39). MIO-320-B1B — M.B.B.: Monsun (BO-209-C). Bellanca Aircraft. D-320-B1B — Blanca Ai	O-320-D2B	Beech Aircraft: Musketeer (M-23).
O-320-D3G	O-320-D2.I	
O-320-E1C M. B.B. (Messerschmitt-Boelkow-Blohm): Monsun (BO-209-B). O-320-E2A Piper Aircraft: Cherokee (PA-28 "140") PA-28 "150") Robin: Major (DR-340). Sitar, Bagheera (CY-100-135). S.O.C. A.T. A.: Super Rallye (MS-886), Rallye Commodore (MS-892). Sial-Marchetti: (S-202): F.F. A.: Bravo (AS-202):15). Partenavia: Oscar (P66B). Bucker (131 APM). Aeromot: Paulistina P-56. Pezetei: Koliber 150. O-320-E2C Beech Aircraft: Musketeer III (M−23III). M.B.B.: Monsun (BO-209-B). O-320-E2D Cessen Aircraft: Cardinal (172-1, 177). O-320-E2F M.B.B.: Monsun (BO-209-B). Wassmer Pacific (WA-51). O-320-E3D Piper Aircraft: Cherokee (140). Beech Aircraft: Sport. IO-320-E3D Piper Aircraft: Twin Comanche (PA-30). IIIShear: Wing. IO-320-B1D Piper Aircraft: Twin Comanche (PA-30). IIIShear: Wing.		
O-320-E1A N.B.B.: Monsun (BO-209-B). Piper Aircraft: Cherokee (PA-28 "140", PA-28 "150"). Robin: Major (DR-340), Sitar, Bagheara (GY-100-135). S.O. C.A.T.A.: Super Rallye (MS-886), Rallye Commodore (MS-892). Siai-Marchetti: (S-202). F.F.A.: Bravo (RS-202/15). Partenavia: Oscar (P668), Bucker (131 APM). Aeromo: Paulistina P-66. Pezzetel: Koliber 150. Beech Aircraft: Musketser III (M-23III). M.B.B.: Monsun (BO-209-B). O-320-E2D O-320-E2D O-320-E2F M.B.B.: Monsun (BO-209-B), Wassmer Pacific (WA-51). O-320-E2F M.B.B.: Monsun (BO-209-B), Wassmer Pacific (WA-51). O-320-E2G American Aviation Corp.: Traveler. O-320-E2G Piper Aircraft: Sport. D-320-B1D Ted Smith Aircraft: Aerostar. D-320-B1D Ted Smith Aircraft: Aerostar. D-320-B1D Ted Smith Aircraft: Aerostar. D-320-C1A M.B.B.: Monsun (BO-209-C). D-320-B1D M.B.B.: Monsun (BO-209-C). D-320-B1B M.B.B.: Monsun (BO-209-C). D-320-B1B Bellanca Aircraft: Sport. D-320-E3B Bellanca Aircraft: Augustar. D-320-E3B Bellanca Aircraft: Augustar. D-320-E3B Bellanca Aircraft: Citabria. Bellanca Aircraft: Citabria. Bellanca Aircraft: Citabria. Bellanca Aircraft: Champion Aircraft: Citabria. Bellanca Aircraft: Champion Aircraft: Citabria. Bellanca Aircraft: Decathalon (BK-A39). Higher Aircraft: Twin Comanche (PA-39). M.B.B.: Monsun (BO-209-C). Bellanca Aircraft: Citabria. Bellanca Aircraft: Bellanca Aircraft: Citabria. Bellanca Aircraft: Bellanca Aircraft: Citabria. Bellanca Aircraft: Bellanca Aircraft: Champion Aircraft: Citabria. Bellanca Aircraft: Bellanca Aircraft: Champion Aircraft: Champion Aircraft: Bellanca Aircraft: Champion Aircraft: Bellanca Aircraft: Champion Aircraft: Decathalon (BKCAB). Bellanca Aircraft: Decatha		
O-320-E2A Piper Aircraft: Cherokee (PA-28 "140", PA-28 "150"). Robin: Major (DR-340), Sitar, Bagheera (GY-100-135). S.O.C.A.T.A.: Super Rallye (MS-886), Rallye Commodore (MS-892). Siai-Marchetti: (S-202). F.F.A.: Bravo (AS-202'15). Partenavia: Oscar (P66B), Bucker (131 APM). Aeromot: Paulistina P-56. Pezetei: Koliber 150. O-320-E2C Been Aircraft: Musketeer III (M-23III). M.B.B.: Monsun (BO-209-B). O-320-E2D Cessan Aircraft: Cardinal (172-1, 177). O-320-E2F M.B.B.: Monsun (BO-209-B). Wassmer Pacific (WA-51). O-320-E2G American Aviation Corp.: Traveler. O-320-E3D Piper Aircraft: Tvin Comanche (PA-30). ID-320-B2A Piper Aircraft: Tvin Comanche (PA-30). ID-320-B10 III. Shear: Wing. ID-320-B11 Ted Smith Aircraft: Aerostar. ID-320-D11 M.B.B.: Monsun (BO-209-C). ID-320-D14 M.B.B.: Monsun (BO-209-C). ID-320-E2A Champion Aircraft: Tvin Comanche (PA-30 Turbo). ID-320-E3D Bellanca Aircraft. ID-320-E3D Bellanca Aircraft. ID-320-E3D M.B.B.: Monsun (BO-209-C). ID-320-E3D M.B.B.: Monsun (BO-209-C). ID-320-E3D Bellanca Aircraft. Champion Aircraft: Champion Aircraft. C		
S.O.C.A.T.A.: Super Rallye (MS-886), Rallye Commodore (MS-892). Siai-Marchetti: (S-202). F.F.A.: Bravo (AS-202/15). Partenavia: Oscar (P66B), Bucker (131 APM). Aeromot: Paulistina P-56. Pezetei: Koliber 150. O-320-E2C		
Sial-Marchetti (S-202)		
F.F.A.: Bravo (ÅS-202/15), Partenavia: Coscar (P66B), Bucker (131 APM). Aeromot: Paulistina P-56. Pezetel: Koliber 150. Pezetel: Koliber 150		
Aeromot: Paulistina P-56.		F.F.A.: Bravo (ÀS-202/15).
Pezetei: Koliber 150.		
O-320-E2C Beech Aircraft: Musketeer III (M-23III). O-320-E2D M.B.B.: Monsun (BO-209-B). O-320-E2F M.B.B.: Monsun (BO-209-B), Wassmer Pacific (WA-51). O-320-E3D American Avaitation Corp.: Traveler. O-320-B3D Piper Aircraft: Cherokee (140). Beech Aircraft: Sport. Piper Aircraft: Twin Comanche (PA-30). IO-320-B1C Hi. Shear: Wing. IO-320-B1D Ted Smith Aircraft: Aerostar. IO-320-C1A Piper Aircraft: Twin Comanche (PA-30 Turbo). IO-320-D1B M.B.B.: Monsun (BO-209-C). IO-320-E1B M.B.B.: Monsun (BO-209-C). IO-320-E1B Bellanca Aircraft. IO-320-E2A Champion Aircraft: Citabria. IO-320-E2B Bellanca Aircraft. IO-320-E1B Bellanca Aircraft. IO-320-E1A Piper Aircraft: Twin Comanche (PA-39). IO-320-E1A Piper Aircraft: Twin Comanche (PA-39). IO-320-E1B Bilanca Aircraft. AEIO-320-D2B Als. B.: Monsun (BO-209-C). AEIO-320-E2B Slingsby: T67M Firefly. Hundustan Aeronautics Ltd.: HT-2. Bellanca Aircraft. Champion Aircraft.		
O-320-E2D	O-320-E2C	Beech Aircraft: Musketeer III (M-23III).
O-320-E2F	0_320_F2D	
O-320-E2G American Aviation Corp.: Traveler. O-320-B2D Piper Aircraft: Cherokee (140). Beech Aircraft: Sport. Piper Aircraft: Twin Comanche (PA-30). IO-320-B1D Hi. Shear: Wing. IO-320-B1D Ted Smith Aircraft: Aerostar. IO-320-C1A Piper Aircraft: Twin Comanche (PA-30 Turbo). IO-320-D1A M.B.B.: Monsun (BO-209-C). IO-320-D1B M.B.B.: Monsun (BO-209-C). IO-320-E1A M.B.B.: Monsun (BO-209-C). IO-320-E1B Bellanca Aircraft. IO-320-E2A Champion Aircraft: Citabria. IO-320-E2B Bellanca Aircraft. IO-320-E2B Bellanca Aircraft. IIO-320-B1A Piper Aircraft: Twin Comanche (PA-39). IIO-320-B1A Piper Aircraft: Twin Comanche (PA-39). AIO-320-B1B M.B.B.: Monsun (BO-209-C). AEIO-320-D1B M.B.B.: Monsun (BO-209-C). AEIO-320-D2B Hundustan Aeronautics Ltd.: HT-2. AEIO-320-E1A Bellanca Aircraft. Champion Aircraft: Decathalon (BKCAB-CS). Bellanca Aircraft. Champion Aircraft: Decathalon (BKCAB). AEIO-320-E1A Belanca Aircraft. </td <td>O-320-E2F</td> <td></td>	O-320-E2F	
Beech Aircraft: Sport.	O-320-E2G	
IO-320-B1C	O-320-E3D	
O-320-B1D	IO-320-B2A	Piper Aircraft: Twin Comanche (PA-30).
IO-320-C1A		
IO-320-D1A		
IO-320-E1AM.B.B.: Monsun (BO-209-C).IO-320-E1BBellanca Aircraft.IO-320-E2AChampion Aircraft: Citabria.IO-320-E1BBellanca Aircraft.IO-320-F1ACAAR Engineering: Carr Midget.LIO-320-B1APiper Aircraft: Twin Comanche (PA-39).LIO-320-C1APiper Aircraft: Twin Comanche (PA-39).AIO-320-B1BM.B.B.: Monsun (BO-209-C).AEIO-320-D1BSlingsby: T67M Firefly.AEIO-320-D2BHundustan Aeronautics Ltd.: HT-2.AEIO-320-E1ABellanca Aircraft.Champion Aircraft.Champion Aircraft.Champion Aircraft: Decathalon (8KCAB-CS).AEIO-320-E2BBellanca Aircraft.Champion Aircraft: Decathalon (8KCAB).O-320-A1ARiley Aircraft: Travel Air (95, B-95). Piper Aircraft: Travel Air (A-6).		
IO-320-E1B		
IO-320-E2A		
IO-320-E2B		
LIO-320-B1A	IO-320-E2B	Bellanca Aircraft.
LIO-320-C1A		
AIO-320-B1B		
AEIO-320-E1A AEIO-320-E1B AEIO-320-E2B O-320-A1A O-360-A1A D-360-A1A AEIO-320-E2B D-360-A1A D-360-A1A	AIO-320-B1B	M.B.B.: Monsun (BO-209-C).
AEIO-320-E1B AEIO-320-E1B AEIO-320-E2B O-320-A1A O-360-A1A Dellanca Aircraft. Champion Aircraft: Decathalon (8KCAB-CS). Bellanca Aircraft: Decathalon (8KCAB). Champion Aircraft: Decathalon (8KCAB). Riley Aircraft: Riley Twin. Beech Aircraft: Travel Air (95, B-95). Piper Aircraft: Comanche (PA-24). Intermountain Mfg. Co.: Call Air (A-6).		
AEIO-320-E1B AEIO-320-E2B O-320-A1A O-360-A1A D-360-A1A Intermountain Mfg. Co.: Call Air (A-6).		
Champion Aircraft: Decathalon (8KCAB–CS). Bellanca Aircraft. Champion Aircraft: Decathalon (8KCAB). Champion Aircraft: Decathalon (8KCAB). Champion Aircraft: Decathalon (8KCAB). Riley Aircraft: Riley Twin. Beech Aircraft: Travel Air (95, B–95). Piper Aircraft: Comanche (PA–24). Intermountain Mfg. Co.: Call Air (A–6).		Champion Aircraft.
AEIO-320-E2B O-320-A1A O-360-A1A Deech Aircraft: Travel Air (95, B-95). Piper Aircraft: Comanche (PA-24). Intermountain Mfg. Co.: Call Air (A-6).	AEIO-320-E1B	
Champion Aircraft: Decathalon (8KCAB). O-320-A1A O-360-A1A	AEIO-320-F2B	
O-360-A1ABeech Aircraft: Travel Air (95, B-95). Piper Aircraft: Comanche (PA-24). Intermountain Mfg. Co.: Call Air (A-6).		Champion Aircraft: Decathalon (8KCAB).
Piper Aircraft: Comanche (PA-24). Intermountain Mfg. Co.: Call Air (A-6).		
Intermountain Mfg. Co.: Call Air (A-6).	U-360-A1A	
Lake Aircraft: Colonial (C-2, LA-4, 4A or 4P).		Intermountain Mfg. Co.: Call Air (A-6).
		Lake Aircraft: Colonial (C–2, LA–4, 4A or 4P).

TABLE 2.—ENGINES INSTALLED ON, BUT NOT LIMITED TO—Continued

Engine models	Installed on, but not limited to	
	Doyn Aircraft: Doyn-Cessna (170B, 172, 172A, 172B).	
	Mooney Aircraft: Mark "20B" (M–20B). Earl Horton: Pawnee (Piper PA–25).	
	Dinfia: Ranquel (1A–51).	
	Neiva: (1PD-5901).	
	Regente: (N-591). Wassmer: Super 4 (WA-50A), Sancy (WA-40), Baladou (WA-40), Pariou (WA-40).	
	Sud: Gardan (GY-180).	
	Bolkow: (207). Partenavia: Oscar (P–66).	
	Siai-Marchetti: (S–205).	
	Procaer: Picchiò (F–15–A).	
	S.A.A.B.: Safir (91–D). Malmo: Vipan (MF–10B).	
	Aero Boero: AB–180.	
	Beagle: Airedale (A–109).	
	DeHavilland: Drover (DHA-3MK3). Kingsford-Smith: Bushmaster (J5-6).	
	Aero Engine Service Ltd.: Victa (R-2).	
O-360-A1AD O-360-A1D	S.O.C.A.T.A.: Tabago TB–10. Piper Aircraft: Comanche (PA–24).	
0-300-ATD	Lake Aircraft: Colonial (LA–4, 4A or 4P).	
	Doyn Aircraft: Doyn-Beech (Beech 95).	
	Mooney Aircraft: Master "21" (M–20E), Mark "20B", "20D", (M20B, M20C), Mooney Statesman (M–20G). Dinfia: Querandi (1A–45).	
	Wassmer: (WA–50).	
	Malmo: Vipan (MF1–10).	
	Cessna Aircraft: Skyhawk. Doyn Aircraft: Doyn-Piper (PA–23 "160").	
O-360-A1F6	Cessna Aircraft: Cardinal.	
O–360–A1F6D	Cessna Aircraft: Cardinal 177.	
O-360-A1G6	Teal III: TSC (1A3). Aero Commander.	
O-360-A1G6D	Beech Aircraft: Duchess 76.	
O–360–A1H6 O–360–A1LD	Piper Aircraft: Seminole (PA–44). Wassmer: Europa WA–52.	
O-360-A1P	Aviat: Husky.	
O-360-A2A	Center Est Aeronautique: Regente (DR-253).	
	S.O.C.A.T.A.: Rallye Commodore (MS–893). Societe Aeronautique Normande: Mousquetaire (D–140).	
	Bolkow: Klemm (K1–107C).	
	Partenavia: Oscar (P-66). Beagle: Husky (D5-180) (J1-U).	
O-360-A2D	Piper Aircraft: Comanche (PA-24), Cherokee "C" (PA-28 "180").	
0.000 405	Mooney Aircraft: Master "21" (M–20D), Mark "21" (M–20E).	
O–360–A2E O–360–A2F	Std. Helicopter. Aero Commander: Lark (100).	
0 000 / ==	Cessna Aircraft: Cardinal.	
O–360–A2G O–360–A3A	Beech Aircraft: Sport. C.A.A.R.P.S.A.N.: (M–23III).	
U-300-A3A	Societe Aeronautique Normande: Jodel (D–140C).	
	Robin: Regent (DR400/180), Remorqueur (DR400/180R), R-3170.	
	S.O.C.A.T.A.: Rallye 180GT, Sportavia Sportsman (RS-180). Norman Aeroplace Co.: NAC-1 Freelance.	
	Nash Aircraft Ltd.: Petrel.	
O-360-A3AD	S.O.C.A.T.A.: TB-10.	
O-360-A4A	Robin: Aiglon (R–1180T). Piper Aircraft: Cherokee "D" (PA–28 "180").	
O-360-A4D	Varga: Kachina.	
O–360–A4G O–360–A4K	Beech Aircraft: Musketeer Custom III. Grumman American: Tiger.	
U-000-A4R	Beech Aircraft: Sundowner 180.	
O-360-A4M	Piper Aircraft: Archer II (PA–28 "18"). Valmet: PIK–23.	
O-360-A4N	Cessna Aircraft: 172 (Optional).	
O-360-A4P	Penn Yan: Super Cub Conversion.	
O-360-A5AD O-360-B2C	C. Itoh and Co.: Fuji FA-200. Seabird Aviation: SB7L.	
O-360-C1A	Intermountain Mfg. Co.: Call Air (A–6).	
O-360-C1E	Bellanca Aircraft: Scout (8GCBC–CS).	
O-360-C1F O-360-C1G	Maule: Star Rocket MX-7-180. Christen: Husky (A-1).	
U-300-01G	Connotent Hubky (A-1).	

TABLE 2.—ENGINES INSTALLED ON, BUT NOT LIMITED TO—Continued

Factor and 1.1	Installed on but not limited to
Engine models	Installed on, but not limited to
O-360-C2B	Hughes Tool Co.: (269A).
O-360-C2D	Hughes Tool Co.: (269A).
O-360-C2E	Hughes Tool Co.: (YHO–2HU) Military. Bellanca Aircraft: Scout (8GCBC FP).
O-360-C4F	Maule: MX-7-180A.
O-360-C4P	Penn Yan: Super Cub Conversion.
O-360-F1A6	Cessna Aircraft: Cutlass RG.
O-360-J2A	Robinson: R22.
IO-360-B1A	Beech Aircraft: Travel-Air (B-95A).
	Doyn Aircraft: Doyn-Piper (PA-23 "200").
IO-360-B1B	Beech Aircraft: Travel-Air (B–95B).
	Doyn Aircraft: Doyn-Piper (PA–23 "200"). Fuji: (FA–200).
IO-360-B1D	United Consultants: See-Bee.
IO-360-B1E	Piper Aircraft: Arrow (PA–28 "180R").
IO-360-B1F	Utva: 75.
IO-360-B2E	C.A.A.R.P. C.A.P. (10).
IO-360-B1F6	Great Lakes: Trainer.
IO-360-B1G6	American Blimp: Spector 42.
IO-360-B2F6	Great Lakes: Trainer.
LO-360-A1G6D	Beech Aircraft: Duchess.
LO-360-A1H6	Piper Aircraft: Seminole (PA–44).
IO-360-E1AIO-360-L2A	T.R. Smith Aircraft: Aerostar. Cessna Aircraft: Skyhawk C–172.
IO-360-L2AIO-360-M1A	Diamond Aircraft: DA–40.
IO-360-M1B	Vans Aircraft: RV6, RV7, RV8.
	Lancair: 360.
AEIO-360-B1F	F.F.A.: Bravo (200).
	Grob: G115/Sport-Acro.
AEIO-360-B1G6	
AEIO-360-B2F	Mundry: CAP-10.
AEIO-360-B4A AEIO-360-H1A	Pitts: S-1S. Bellanca Aircraft: Super Decathalon (8KCAB-180).
AEIO-360-H1B	American Champion: Super Decathalon.
VO-360-A1A	Brantly Hynes Helicopter: (B–2).
VO-360-A1B	Brantlý Hýnes Helicopter: (B-2, B2-A), Military (YHO-3BR).
VO-360-B1A	Brantly Hynes Helicopter: (B–2, B2–A).
IVO-360-A1A	Brantly Hynes Helicopter: (B2–B).
HO-360-B1A HO-360-B1B	Hughes Tool Co.: (269A). Hughes Tool Co.: (269A).
HO-360-C1A	Schweizer: (300C).
HIO-360-B1A	Hughes Tool Co.: Military (269–A–1), (TH–55A).
HIO-360-B1B	Hughes Tool Co.: (269A).
HIO-360-G1A	Schweizer: (CB).
O-540-A1A	Rhein-Flugzeugbau: (RF-1).
O-540-A1A5	Piper Aircraft: Comanche (PA–24 "180").
	Helio: Military (H–250). Yoeman Aviation: (YA–1).
O-540-A1B5	Piper Aircraft: Aztec (PA–23 "250"), Comanche (PA–24 "250").
O-540-A1C5	Piper Aircraft: Comanche (PA–24 "250").
O-540-A1D	Found Bros.: (FBA–2C).
_	Dornier: (DO–28–B1).
O-540-A1D5	Piper Aircraft: Aztec (PA-23 "250"), Comanche (PA-24 "250"), Military Aztec (U-11A).
O 540 AOD	Dornier: (DO–28). Aero Commander: (500).
O–540–A2B	Mid-States Mfg. Co.: Twin Courier (H–500), (U–5).
O-540-A3D5	Piper Aircraft: Navy Aztec (PA–23 "250").
O-540-B1A5	Piper Aircraft: Apache (PA-23 "235").
O-540-B1B5	Piper Aircraft: Comanche (PA-24 "250").
	Doyn Aircraft: Doyn-Piper (PA-24 "250").
O-540-B1D5	Wassmer: (WA-421).
O–540–B2B5	Piper Aircraft: Pawnee (PA–25 "235"), Cherokee (PA–28 "235"), Aztec (PA–23 "235").
	Intermountain Mfg. Co.: Call Air (A–9).
	Rawdon Bros.: Rawdon (T–1). S.O.C.A.T.A.: Rallye 235CA.
O-540-B2C5	Piper Aircraft: Pawnee (PA–25 "235").
O-540-B4B5	Piper Aircraft: Cherokee (PA–28 "235").
	Embraer: Corioca (EMB-710).
	S.O.C.A.T.A.: Rallye 235GT, Rallye 235C.
0 = 40 = 44 =	Maule: Star Rocket (MX-7-235), Super Rocket (M-6-235), Super Std. Rocket (M-7-235).
O-540-E4A5	
	Aviamilano: Flamingo (F–250).

TABLE 2.—ENGINES INSTALLED ON, BUT NOT LIMITED TO—Continued

Engine models	Installed on, but not limited to
	Siai-Marchetti: (SF–260), (SF–208).
O-540-E4B5	Britten-Norman: (BN-2).
	Piper Aircraft: Cherokee Six (PA-32 "260").
O-540-E4C5	Pilatus Britten-Norman: Islander (BN-2A-26), Islander (BN-2A-27), Islander II (BN-2B-26), Islander (BN-2A-21),
O 540 51D5	Trislander (BN-2A-Mark III-2).
O-540-F1B5	Omega Aircraft: (BS–12D1). Robinson: (R–44).
O-540-G1A5	Piper Aircraft: Pawnee (PA–25 "260").
O-540-H1B5D	
O-540-H2A5	Embraer: Impanema "AG".
	Gippsland: GA–200.
O-540-H2B5D	
O-540-J1A5D	
O-540-J3A5	Robin: R-3000/235.
O-540-J3A5D O-540-J3C5D	Piper Aircraft: Dakota (PA-28-236). Cessna Aircraft: Skylane RG.
O-540-L3C5D	Cessna Aircraft: TR–182, Turbo Skylane RG.
IO-540-C1B5	Piper Aircraft: Aztec B (PA-23 "250"), Comanche (PA-24 "250").
IO-540-C1C5	
IO-540-C4B5	Piper Aircraft: Aztec C (PA-23 "250"), Aztec F.
	Wassmer: (WA4–21).
	Avions Pierre Robin: (HR100/250).
	Bellanca Aircraft: Aries T–250.
IO-540-C4D5	Aerofab: Renegade 250. S.O.C.A.T.A.: TB–20.
IO-540-C4D5D	S.O.C.A.T.A.: TID 20.
IO-540-D4A5	
	Siai-Marchetti: (SF-260).
IO-540-D4B5	Cerva: (CE-43 Guepard).
IO-540-J4A5	Piper Aircraft: Aztec (PA-23 "250").
IO-540-R1A5	
IO-540-T4A5DIO-540-T4B5	General Aviation: Model 114. Commander: 114B.
IO-540-T4B5D	Rockwell: 114.
IO-540-T4C5D	
IO-540-V4A5	Maule: MT-7-260, M-7-260.
	Aircraft Manufacturing Factory.
IO-540-V4A5D	Brooklands: Scoutmaster.
IO-540-W1A5	
IO-540-W1A5D	
IO-540-W3A5D AEIO-540-D4A5	Christen: Pitts (S–2S, S–2B).
ALIO 040 D4A0	Siai-Marchetti: SF–260.
	H.A.L.: HPT-32.
	Slingsby: Firefly T3A.
AEIO-540-D4B5	Moravan: Zlin–50L.
	H.A.L.: HPT-32.
AEIO-540-D4D5	Burkhart Grob: Grob G, 115T Aero.
TIO-540-C1A TIO-540-K1AD	Piper Aircraft: Turbo Aztec (PA–23–250). Piper Aircraft.
TIO-540-AA1AD	Aerofab Inc.: Turbo Renegade (270).
TIO-540-AB1AD	S.O.C.A.T.A.: Trinidad TC TB–21.
TIO-540-AB1BD	Schweizer.
TIO-540-AF1A	Mooney Aircraft: "TLS" M20M.
TIO-540-AG1A	Commander Aircraft: 114TC.
TIO-540-AK1A	Cessna Aircraft: Turbo Skylane T182T.
LTIO-540-K1AD	Piper Aircraft.

Unsafe Condition

(d) This AD results from reports of 45 failures with head separations of ECi cylinder assemblies. We are issuing this AD to prevent loss of engine power due to cracks at the head-to-barrel interface in the cylinder assemblies and possible engine failure caused by separation of a cylinder head, which could result in loss of control of the aircraft.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Engines Not Overhauled or Cylinder Assemblies Not Replaced Since New

(f) If your engine has not been overhauled or had any cylinder assemblies replaced since new, no further action is required.

Engines Overhauled or Cylinder Assemblies Replaced Since New

- (g) If your engine was overhauled or had a cylinder assembly replaced since new, do the following:
- (1) Before further flight, inspect the maintenance records and engine logbook to determine if the overhaul or repair facility used ECi cylinder assemblies, P/N AEL65102, with cylinder head, P/N AEL85099, with a SN 1138–02 through SN

- 35171–22, or a SN 35239–01 through SN 37016–28, installed.
- (2) If the cylinder assemblies are not ECi, P/N AEL65102, no further action is required.
- (3) If the cylinder assemblies are ECi, P/N AEL65102, and if the serial number is not listed in this AD, no further action is required.
- (4) If the cylinder assemblies are ECi, P/N AEL65102, and if the serial number is listed in this AD, do the following:

Group "A" Cylinder Assemblies

- (i) For Group "A" cylinder assemblies:
- (A) Perform an initial visual inspection as specified in paragraphs (h) through (j) of this AD, and an initial compression test as specified in paragraphs (k) through (o) of this AD, within the next 10 operating hours time-in-service (TIS), if the cylinder assembly has 350 or more operating hours TIS on the effective date of this AD, but fewer than 2,000 operating hours TIS.
- (B) Perform an initial visual inspection as specified in paragraphs (h) through (j) of this AD, and an initial compression test as specified in paragraphs (k) through (o) of this AD, before exceeding 350 operating hours TIS, if the cylinder assembly has fewer than 350 operating hours TIS on the effective date of this AD.
- (C) Replace cylinder assemblies installed in helicopter engines within the next 25 operating hours TIS after the effective date of this AD if the cylinder assembly has 1,500 operating hours TIS or more on the effective date of this AD.
- (D) Replace cylinder assemblies installed in airplane engines within the next 25 operating hours TIS after the effective date of this AD if the cylinder assembly has 2,000 operating hours TIS or more on the effective date of this AD.
- (E) Perform repetitive visual inspections as specified in paragraphs (h) through (j) of this AD, and repetitive compression tests as specified in paragraphs (k) through (o) of this AD, within every 50 operating hours TIS.
- (F) Replace cylinder assemblies installed in helicopter engines that pass the visual inspections and compression tests, no later than 1,500 operating hours TIS after the effective date of this AD.
- (G) Replace cylinder assemblies installed in airplane engines that pass the visual inspections and compression tests, no later than 2,000 operating hours TIS after the effective date of this AD.

Group "B" Cylinder Assemblies

- (ii) For Group "B" cylinder assemblies:
- (A) Perform an initial visual inspection as specified in paragraphs (h) through (j) of this AD, and initial compression test as specified in paragraphs (k) through (o) of this AD, within an additional 10 operating hours TIS.
- (B) Replace the cylinder assembly within the next 25 operating hours TIS after the effective date of this AD if the cylinder assembly has 350 or more operating hours TIS on the effective date of this AD.
- (C) Replace cylinder assemblies that pass the initial visual inspections and compression tests, before exceeding 350 operating hours TIS after the effective date of this AD.

Visual Inspection

- (h) Visually inspect around the exhaust valve side, for cracks or any signs of black or white residue of combustion leakage from cracks.
- (i) Replace cracked cylinder assemblies before further flight.
- (j) Information on cylinder assembly visual inspection can be found in ECi Mandatory Service Bulletin (MSB) No. 08–1, Revision 1, dated April 8, 2008.

Cylinder Assembly Compression Test

- (k) Compression test the cylinder assembly. (l) Information on cylinder assembly compression testing can be found in ECi MSB No. 08–1, Revision 1, dated April 8, 2008.
- (m) During the compression test, if the cylinder pressure gauge reads below 70 pounds-per-square-inch, apply a water and soap solution to the side of the leaking cylinder, near the head-to-barrel interface.
- (n) Replace the cylinder assembly before further flight, if air leakage and bubbles are observed on the side of the cylinder assembly, near the head-to-barrel interface.
- (o) Repair or replace the engine cylinder assembly before further flight if the cause of the low gauge reading in paragraph (m) of this AD is from leaking intake or exhaust valves, or from leaking piston rings.

Prohibition of ECi Cylinder Assemblies Affected By This AD

(p) After the effective date of this AD, do not install any ECi cylinder assembly, P/N AEL65102, with cylinder head, P/N AEL85099, and with SN 1138–02 through SN 35171–22, or SN 35239–01 through SN 37016–28, onto any engine, and do not attempt to repair or reuse these ECi cylinder assemblies.

Alternative Methods of Compliance

(q) The Manager, Special 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

(r) Under 14 CFR 39.23, we will not approve special flight permits for this AD for engines that have failed the visual inspection or the cylinder assembly compression test required by this AD.

Related Information

- (s) ECi Mandatory Service Bulletin No. 08–1, Revision 1, dated April 8, 2008, pertains to the subject of this AD.
- (t) Contact Peter W. Hakala, Aerospace Engineer, Special Certification Office, FAA, Rotorcraft Directorate, 2601 Meacham Blvd., Fort Worth, TX 76193; e-mail: peter.w.hakala@faa.gov; telephone (817) 222–5145; fax (817) 222–5785, for more information about this AD.

Issued in Burlington, Massachusetts, on May 13, 2008.

Peter A. White,

Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service. [FR Doc. E8–11116 Filed 5–16–08; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA-2008-0434; Airspace Docket No. 08-ASW-6]

Proposed Establishment of Class D Airspace; Victoria, TX

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This action proposes to establish Class D airspace at Victoria Regional Airport, Victoria, TX. The establishment of an air traffic control tower has made this action necessary for the safety of Instrument Flight Rule (IFR) operations at Victoria Regional Airport.

DATES: 0901 UTC July 31, 2008. Comments must be received on or before July 3, 2008.

ADDRESSES: Send comments on this proposal to the U.S. Department of Transportation, Docket Operations, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001. You must identify the docket number FAA-2008-0434/Airspace Docket No. 07-ASW-6, at the beginning of your comments. You may also submit comments on the Internet at http://www.regulations.gov. You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1-800-647-5527) is on the ground floor of the building at the above address.

FOR FURTHER INFORMATION CONTACT: Gary Mallett, Central Service Center, System Support Group, Federal Aviation Administration, Southwest Region, 2601 Meacham Blvd., Fort Worth, TX 76193–0530; telephone: (817) 222–4949.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal.