

any given cooling air flow, thereby substantially reducing the likelihood of cylinder head problems. Reducing engine timing results in a power loss of approximately 1.5% at full power during an engine calibration test. That condition, if not corrected, could result in possible cylinder cracking with subsequent loss of engine power.

Since the issuance of that AD, TCM has redesigned the cylinder head for additional strength. Cylinder, Part Number (P/N) 641917, and subsequent (higher) numbers (the P/N is stamped on the cylinder barrel flange) have the strengthened head. Accordingly, any O-200A or B engine with P/N 641917 cylinders or any combination of 641917 and subsequent (higher) part number cylinders installed can return the timing to 28° BTC. Airworthiness directive 77-13-03 applies to the TCM O-200C engine as well as the O-200A and B engines; since there was never a production TCM O-200C engine built, that engine model has been dropped from this proposed AD. The current AD also does not apply to the Rolls-Royce, plc O-200 series engines that were built under a licensing agreement with TCM. Teledyne Continental Motors now has the continuing airworthiness responsibility for these engines and they have been included in this proposed AD.

The FAA has reviewed and approved the technical contents of TCM Service Bulletin (SB) No. SB94-8, dated September 14, 1994, that lists the magneto to engine timing for each TCM engine and specifically addresses the O-200A and B engines in Note 5.

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would supersede AD 77-13-03 to retain the 24° BTC engine timing for engines with cylinders that have P/N lower than 641917; allow the return to 28° BTC engine timing for those engines with cylinder P/N 641917 and subsequent (higher) part numbers, restamp the engine data plate to indicate engine timing of 28° BTC; adds the Rolls-Royce, plc O-200A, O-200B, and O-200C series engines to the AD's applicability; and drops the TCM O-200C series engines from the AD's applicability.

The FAA estimates that 23,500 engines installed on aircraft of U.S. registry would be affected by this proposed AD, that it would take approximately 2 work hours per engine to accomplish the proposed actions, and that the average labor rate is \$60 per work hour. This AD adds no additional requirements; the resetting of engine timing for engines with the improved

cylinders is option. Therefore, there would be no cost imposed by the proposed actions. However, if the timing was reset on all applicable engines, based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$2,820,000.

The regulations proposed herein would not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed regulation (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) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (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. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-2925 (42 FR 31770, June 23, 1977) and by adding a new airworthiness directive to read as follows:

Teledyne Continental Motors and Rolls-Royce, plc.: Docket No. 94-ANE-53. Supersedes AD 77-13-03, Amendment 39-2925.

Applicability: Teledyne Continental Motors (TCM) Model O-200A and O-200B and Rolls-Royce, plc. Model O-200A, O-200B, and O-200C reciprocating engines. These engines are installed on but not limited to American Champion Models 7ECA and 402; Cessna Model 150, 150A through 150M, A150K through A150M; Reims Models F-150G through F-150M, FA-150K and FA-150L; and Taylorcraft Model F19 aircraft.

Note: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must use the authority provided in paragraph (g) to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any engine from the applicability of this AD.

Compliance: Required as indicated, unless accomplished previously.

To prevent possible cylinder cracking with subsequent loss of engine power, accomplish the following:

(a) For engines that have one or more cylinders with part numbers (P/N) lower than 641917, within the next 50 hours time in service (TIS) after the effective date of this airworthiness directive (AD), reset the engine timing to 24° (+1°, -0°) Before Top Center (BTC) on both magnetos in accordance with the magneto to engine timing procedure for direct drive engines in TCM Service Bulletin (SB) No. SB94-8, dated September 14, 1994.

(b) For engines that have all four cylinders with P/N 641917 or higher, the engine timing may be reset to 28° (±1°, -0°) BTC on both magnetos in accordance with the magneto engine timing procedure for direct drive engines in TCM SB No. SB94-8, dated September 14, 1994.

(c) Subsequent installation of cylinders must be of the P/N listed in paragraph (b) of this AD to retain the 28° BTC timing.

Note: The P/N is stamped on the cylinder barrel flange.

(d) This AD supersedes AD 77-13-03.

(e) When paragraph (a) is accomplished, restamp the engine data plate to indicate magneto timing of 24° BTC.

(f) When paragraph (b) is accomplished, restamp the engine data plate to indicate magneto timing of 28° BTC.

(g) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Atlanta Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft Certification Office.

Note: Information concerning the existence of approved alternative methods of