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U.S. Department of Transportation
Docket Management Facility
West Building Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: FAA-2008-0052: Directorate Identifier 2008-NE-01-AD; Airworthiness Directives; Engine Components Inc. (ECi) Reciprocating Engine Cylinder Assemblies

The Aircraft Owners and Pilots Association (AOPA) is a not-for-profit individual membership organization of more than 415,000 pilots. AOPA's mission is to effectively serve the interests and needs of its members as aircraft owners and pilots and establish, maintain, and articulate positions of leadership to promote the economy, safety, utility, and popularity of flight in general aviation aircraft. Representing two thirds of all pilots in the United States, AOPA is the largest civil aviation organization in the world.

AOPA submits the following comments to the Federal Aviation Administration's (FAA) Airworthiness Directives; Engine Components Inc. (ECi) Reciprocating Engine Cylinder Assemblies Notice of Proposed Rulemaking (NPRM) published in the Federal Register on Monday, May 19, 2008.

AOPA is asking the FAA to reevaluate its current data and consider extending the repetitive visual inspection and compression test interval from 50 hours to 100 hours time-since-last inspection or at annual, which ever occurs first.

AOPA is requesting that the FAA reevaluate the inspection interval

The FAA is proposing an airworthiness directive for 320, 360, and 540 series Lycoming Engines with certain "Titan" branded Engine Component Inc. (ECi) cylinder assemblies. The proposed AD would require an initial and repetitive inspection and a removal from service operating hour limit on these cylinder assemblies.

Explanation of proposed airworthiness directive: The proposed AD results from 45 reported failures of the ECi cylinder assemblies. The failures were caused by fatigue cracking in the cylinder assembly at the head-to-barrel interface. These cracks can lead to cylinder head separation, engine power loss and loss of control of the aircraft.

The proposed AD breaks the affected cylinders into two groups. Group "A" and group "B". Both groups are subject to an initial inspection and compression test to detect cracks the in cylinders. Group "A" cylinders also have a repetitive inspection requirement under the proposed AD and would have to be removed from service at 2,000 operating hours time-in-service (TIS), unless installed on helicopters. Group "A" cylinders installed on helicopters would have to be removed from service at 1,500 hours TIS. Group "B" cylinder assemblies would have to be removed from service before exceeding 350 hours TIS.

For both groups the initial visual inspection and compression test would need to occur within 10 operating hours TIS after the effective date of the AD. Repetitive visual inspections and compression tests for group "A" cylinder assemblies would need to be completed within 50 operating hours TIS until the cylinders reach the TIS limits prescribed in the proposed AD.

AOPA recommendation: The impact of requiring visual inspections and compression tests at 50-hour intervals on aircraft owners is significant. AOPA is asking the FAA to reevaluate its current data and all new data submitted as part of the rulemaking and to consider extending the repetitive visual inspection and compression test interval from 50 to 100 hours TIS, or at annual, whichever occurs first for group "A" cylinder assemblies.

Visual inspections and compression checks are already accomplished as part of 100-hour inspections on aircraft operated for hire and as part of annual inspections on all aircraft as per 14 CFR Part 91.49 and Part 43 Appendix D. Increasing the inspection interval would dramatically reduce the operational and financial impacts of this proposed AD.

Summary

AOPA believes that extending the inspection intervals from 50 hours to 100 hours TIS or at next annual, which ever occurs first, for group "A" cylinder assemblies would reduce the impact of this proposed AD and is asking the FAA to consider all data to determine if this is appropriate.

Sincerely,

Leisha Bell
Manager
Regulatory Affairs