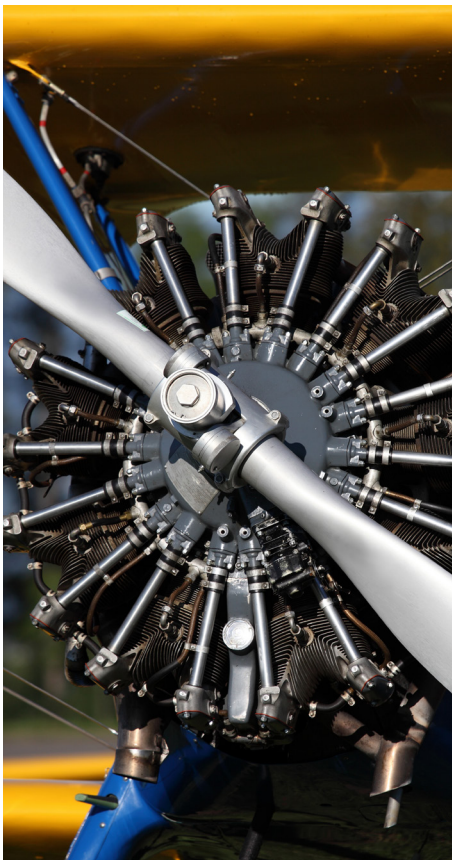
FAA Airworthiness Directive (AD)

Lycoming Engines



The FAA has issued a new Airworthiness Directive (AD) to address safety concerns related to certain Lycoming model engines equipped with specific connecting rod assemblies. This directive is prompted by reports of connecting rod failures that have led to uncontained engine failures and in-flight shutdowns (IFSDs). Investigations revealed that the small-end bushings in the connecting rods may degrade over time, which can be detected during routine oil inspections.

The AD aims to ensure that operators monitor and identify any signs of degradation in the connecting rod bushings, which could prevent further failures and improve engine safety.

Key requirements of the AD

Oil inspections for metal particulates:

Operators are required to perform repetitive oil inspections for the presence of bronze metal particulates in the engine oil. These particulates indicate that the connecting rod bushings may be deteriorating.

Additional inspections:

If bronze particulates are detected, the operator must perform further inspections of the connecting rod bushings for the following:

- Damage (e.g., deterioration or missing metal)
- Proper fit
- Movement and wear

These inspections must assess the condition of the bushings to determine if they require replacement.

Replacement of affected bushings:

If damage is found during the additional inspections, the connecting rod bushings must be replaced with parts that are eligible for installation as specified by Lycoming.

Objective of the AD

The primary goal of this AD is to address the unsafe conditions associated with the connecting rod bushings in certain Lycoming engines. The AD

mandates these inspections and bushing replacements to prevent connecting rod failures that could lead to serious safety risks, including engine failure and potential loss of power during flight.

Affected engines

This AD applies to Lycoming engines that are equipped with specific connecting rod assemblies, which have been identified as potentially vulnerable to this issue. Operators of affected engines must comply with the inspection requirements outlined in the AD.

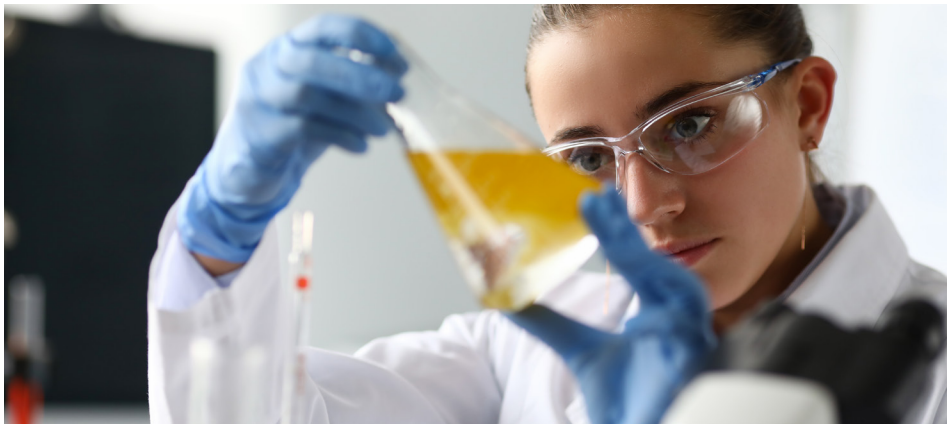
Compliance timeline

Effective date: December 5, 2024

Operators must begin performing the required oil inspections for metal particulates starting on or after the effective date.

Additional notes

Oil change frequency:



The AD does not define the frequency of oil changes. Oil changes should follow the engine's regular maintenance schedule, and the required inspections for metal particulates should be conducted during these intervals.

Documentation:

Operators must keep detailed records of inspections and any corrective actions (e.g., replacing bushings).

Conclusion

This FAA AD is a proactive measure to reduce the risk of engine failure and improve safety for aircraft powered by Lycoming engines with affected connecting rod assemblies. Operators must comply with the oil inspection and bushing replacement requirements to ensure continued airworthiness and avoid potential in-flight shutdowns or engine failures.

For further information or to review the AD, visit the regulations.gov website or contact Lycoming Engines directly for detailed service bulletins and parts information.

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