

**DEPARTMENT OF  
TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39 [SN][R25HT]**

**AVCO Lycoming**  
**AD 80-25-02 R2**  
**Amendment 39-4016**  
**Effective Jan. 13, 1981**  
**Revises AD 80-25-02 R1**  
**Recurring: 25H**

[Docket No. ; Amendment 39-4016; AD 80-25-02 R2]

**Airworthiness Directives; Avco Lycoming Model O-235 Series Engines.**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**DATES:** Effective January 13, 1981.

**80-25-02 R2 AVCO LYCOMING:** Amendment 39-4016.

Applies to O-235 series engines with Serial Numbers L-12500-15 thru L-20676-15 inclusive, all remanufactured O-235 series engines, regardless of serial number, shipped between December 10, 1976, and November 8, 1979, and all O-235 series engines regardless of serial number that had pushrods replaced between December 10, 1976, and November 24, 1980.

Model O-235 series engines are installed in but not limited to, Piper PA-38-112, Cessna 152, Gulfstream American AA1C, Beech 77, and Bellanca 7ECA aircraft.

This AD does not apply to O-235 series engines incorporating eight pushrods P/N 73806, identified by revision letter K or subsequent revision letter, or by code T-T, -85 or the symbol as described in **Lycoming Service Bulletin No. 453** or a subsequent approved revision.

Compliance with this AD is also required by the following engine serial numbers which were previously exempt by Emergency Airworthiness Directive 80-25-02 R1:

L-15619-15	L-19029-15	L-20155-15	L-20385-15
L-16333-15	L-19030-15	L-20156-15	L-20386-15
L-17291-15	L-19031-15	L-20157-15	L-20387-15
L-17644-15	L-19145-15	L-20158-15	L-20388-15
L-18054-15	L-19146-15	L-20172-15	L-20389-15
L-18055-15	L-19147-15	L-20173-15	L-20428-15
L-18073-15	L-19148-15	L-20174-15	L-20429-15

L-18074-15	L-19149-15	L-20175-15	L-20430-15
L-18141-15	L-19766-15	L-20176-15	L-20431-15
L-18142-15	L-19767-15	L-20242-15	L-20432-15
L-18207-15	L-19768-15	L-20243-15	L-20460-15
L-18208-15	L-19990-15	L-20244-15	L-20461-15
L-18502-15	L-19991-15	L-20245-15	L-20462-15
L-18503-15	L-19992-15	L-20246-15	L-20463-15
L-18601-15	L-19993-15	L-20323-15	L-20464-15
L-18948-15	L-19994-15	L-20324-15	L-20523-15
L-18949-15	L-19995-15	L-20325-15	L-20524-15
L-18950-15	L-19996-15	L-20326-15	L-20525-15
L-18951-15	L-19997-15	L-20327-15	L-20526-15
L-19028-15	L-19999-15	L-20384-15	L-20527-15
			L-20609-15
			L-20610-15
			L-20611-15
			L-20612-15

Compliance required as indicated:

In order to prevent failures of engine pushrods which can cause rough engine operation and power loss, accomplish the following:

1. Prior to further flight, remove all eight pushrods and inspect for loose ball ends and evidence of bulging and splitting of the pushrod tubing. Measure the length of the pushrod assembly. The overall length shall not be less than 11 17/32 inches. If all these conditions are satisfactory set valve clearances in accordance with Paragraph 8 of **Lycoming Service Instructions Nos. 1388A** dated January 25, 1980, and **1068A** dated September 1, 1978. If any pushrod is found damaged or is less than the specified dimension noted above, replace with a serviceable part prior to further flight.
2. Within 25 hours in service after the effective date of this AD **and every 25 hours thereafter**, measure and record valve tappet clearances in accordance with **Lycoming Service Instructions 1388A** and **1068A**. If any valve clearance increases more than .015 inch since the last 25 hour inspection, remove the pushrod and inspect for damage and shortening in accordance with Item 1 above.
3. The 25 hour repetitive inspection described in Paragraph 2 above may be discontinued upon installation of P/N 73806 pushrods which have been identified by one of the codes specified in this AD.
4. A special flight permit may be issued in accordance with FAR 21.197 to fly the aircraft to a base where the above inspections may be accomplished.

Equivalent methods of compliance must be approved by the Chief, Engineering and Manufacturing Branch, FAA Eastern Region.

(**Beech Aircraft Corp. Executive Airplane Service Communique No. 52** dated December 16, 1980, pertains to this subject.)

This Amendment becomes effective Jan. 13, 1981, to all persons except those to whom it was made effective by airmail letters dated November 25, 1980, November 28, 1980, and December 3, 1980.

**Manufacturer's Service Information:**

**Beech Aircraft Corp. Executive Airplane Service Communique No. 52**

**Lycoming Service Instructions 1388A**     [\[1388C\]](#)

[Lycoming Service Instructions 1068A](#)

[Lycoming Service Bulletin No. 453D](#)