

SERVICE INSTRUCTION

DATE: September 1, 1978

Service Instruction No. 1068A
(Supersedes Service Instruction No. 1068)
Engineering Aspects are
FAA (DER) Approved

SUBJECT: Tappet Clearance

MODELS AFFECTED: All Avco Lycoming O-235 Series and O-290-D Series Aircraft Engines.

TIME OF COMPLIANCE: When tappets are adjusted.

When setting the tappet clearance on the O-235 Series or O-290-D Series Engines, it has been customary to set the clearance at .010 inch as stamped on the engine nameplate. If this is done indiscriminately, the desired running clearance will not be obtained.

The following procedure is recommended for setting tappets on these engines after major overhaul. The engine must be at room temperature.

1. Set tappets on No. 2 and 4 cylinders with zero clearance. This will load the camshaft on one side.
2. Rotate the crankshaft until No. 1 piston is at top dead center on its compression stroke. Both intake and exhaust valves will now be closed. Adjust each for a .007/.009 clearance between the valve stem and rocker arm tip. Torque jam nuts to 450 inch pounds.
3. Follow step 2 procedure for the No. 3, 2 and 4 cylinders individually and in this order. Note that each cylinder must have its piston on top dead center on the compression stroke when the respective rocker adjustments are made.
4. Run-in engine following approved procedures.
5. Recheck tappet clearance .010 is desirable, however, .006/.012 is acceptable.
6. When only one cylinder is being replaced, set the clearance at .007/.009 and follow steps 4 and 5.
7. When maintenance checking, measure the present clearances and adjust to .007/.009 if needed.

NOTE

It is recommended that the tappet clearance be checked after each 100 hours of operation.

NOTE: Revision "A" changes models affected to include all O-235 models and adds torque requirement for jam nuts.

11157 - This number for Avco Lycoming reference only.

SERVICE INSTRUCTION

March 17, 1997

Supplement No. 1

To

Service Instruction No. 1068A

When steel push rods P/N 15F22200 are installed in O-235 series engines, steps 2., 3., 4., 5., 6., and 7., in Service Instruction No. 1068A should read as follows:

2. Rotate the crankshaft until No. 1 piston is at top dead center on its compression stroke. Both intake and exhaust valves will now be closed. Adjust each for a .002/.004 clearance between the valve stem and rocker arm tip. Torque jam nuts to 450 inch pounds.
3. Follow step 2. procedure for the No. 3, 2 and 4 cylinders individually and in this order. Note that each cylinder must have its piston on top dead center on the compression stroke when the respective rocker adjustments are made.
4. Run-in engine following approved procedures.
5. Recheck tappet clearance. .005 is desirable, however, .002/.008 is acceptable.
6. When only one cylinder is being replaced, set the clearance for all the cylinders to .002/.004 following steps 2, 3, 4 and 5.
7. When maintenance checking, measure the present clearances and adjust to .002/.004 if needed.
8. Mark through the old dry tappet clearance on the engine name plate. Stamp the new dry tappet clearance, .005", on the engine name plate near the old one. Make the appropriate log book entry.