

Airworthiness Directive Schedule

Engines

Lycoming AEIO-580 and IO-580 Series

28 November 2024

- Notes:**
1. This AD schedule is applicable to Lycoming **AEIO-580-B1A** and **IO-580-B1A** series engines manufactured under FAA Type Certificate No **E00004NY**.
 2. The Federal Aviation Administration (FAA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for Lycoming reciprocating engines.

State of Design ADs can be obtained directly from the FAA website at: [Dynamic Regulatory System \(faa.gov\)](https://www.faa.gov/dynamic-regulatory-system)
 3. Manufacturer service information referenced in Airworthiness Directives listed in this schedule may be at a later approved revision. Service information at later approved revisions can be used to accomplish the requirements of these Airworthiness Directives.
 4. The date above indicates the amendment date of this schedule.
 5. New or amended ADs are shown with an asterisk *
-

Contents

| | | |
|--|--|---|
| 2004-10-14 | Crankshaft Gear – Inspection | 2 |
| 2009-02-03 | Fuel Injection Servos – Inspection | 2 |
| 2012-03-06 | Fuel Servo Diaphragm – Inspection | 2 |
| 2012-19-01 | Crankshafts – Inspection..... | 2 |
| 2015-02-07 | Propeller Governor Shaft Set Screw – Inspection..... | 2 |
| 2017-16-11 | Connecting Rod Small End Bushings – Inspection | 2 |
| The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at Links to state of design airworthiness directives aviation.govt.nz If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below. | | |
| DCA/LYC/224A | Lycoming Parallel Valve Cylinder and Head Assemblies – Inspection..... | 3 |
| * 2024-21-02 | Connecting Rod Assemblies - Inspection..... | 4 |

2004-10-14 Crankshaft Gear – Inspection

Compliance: Before the issue of a New Zealand Certificate of Airworthiness, or at the next ARA, whichever is the sooner, unless previously accomplished. Repetitive inspections, if required, to be accomplished at intervals not to exceed the times specified in the FAA AD.

Effective Date: 25 May 2017

2009-02-03 Fuel Injection Servos – Inspection

Compliance: Before the issue of a New Zealand Certificate of Airworthiness, or at the next ARA, whichever is the sooner, unless previously accomplished. Repetitive inspections, if required, to be accomplished at intervals not to exceed the times specified in the FAA AD.

Effective Date: 25 May 2017

2012-03-06 Fuel Servo Diaphragm – Inspection

Compliance: Before the issue of a New Zealand Certificate of Airworthiness, or at the next ARA, whichever is the sooner, unless previously accomplished. Repetitive inspections, if required, to be accomplished at intervals not to exceed the times specified in the FAA AD.

Effective Date: 25 May 2017

2012-19-01 Crankshafts – Inspection

Compliance: Before the issue of a New Zealand Certificate of Airworthiness, or at the next ARA, whichever is the sooner, unless previously accomplished. Repetitive inspections, if required, to be accomplished at intervals not to exceed the times specified in the FAA AD.

Effective Date: 25 May 2017

2015-02-07 Propeller Governor Shaft Set Screw – Inspection

Compliance: Before the issue of a New Zealand Certificate of Airworthiness, or at the next ARA, whichever is the sooner, unless previously accomplished. Repetitive inspections, if required, to be accomplished at intervals not to exceed the times specified in the FAA AD.

Effective Date: 25 May 2017

2017-16-11 Connecting Rod Small End Bushings – Inspection

Applicability: All Lycoming engines listed in Table 1 of Lycoming Engines Mandatory Service Bulletin (MSB) No. 632B, dated 4 August 2017, and

All Lycoming engines that were overhauled or repaired using any replacement part listed in Table 2 of Lycoming Engines MSB No. 632B, dated 4 August, 2017, which was shipped from Lycoming Engines during the dates listed in Table 2 of Lycoming Engines MSB No. 632B, dated 4 August 2017.

Effective Date: 15 August 2017

The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at [Links to state of design airworthiness directives | aviation.govt.nz](https://aviation.govt.nz)
 If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.

DCA/LYC/224A Lycoming Parallel Valve Cylinder and Head Assemblies – Inspection

Applicability: All Lycoming engines fitted with parallel valve cylinder and head assemblies listed in Table 1 of Lycoming Mandatory Service Bulletin (MSB) 634, dated 11 October 2018, or later FAA approved revision.

Note: DCA/LYC/224A revised to introduce a repetitive inspection requirement for affected parallel valve cylinder and head assemblies, until replacement per requirement 2 of this AD. Affected cylinder and head assemblies were supplied in cylinder kits and installed on all parallel valve engines (except O-235 model engines), that were supplied by Lycoming Engines between 1 September 2013 and 30 April 2015. To identify affected cylinder and head assemblies refer to Lycoming MSB 634.

Requirement: To prevent loss of engine power due to a cracked cylinder assembly, accomplish the following:

1. Inspection:
 Inspect affected parallel valve cylinder and head assemblies for visible discolouration/residue on the cylinder fins. If residue is found on the cylinder fins, then the cylinder may be cracked and further investigation is required. Accomplish a compression test on affected cylinders (refer to Lycoming Service Instruction 1191A). If the compression value does not meet OEM requirements, then the cylinder may be cracked and further investigation is required. Any loss of compression may be due to a cracked cylinder assembly. If a whistling sound is evident while accomplishing the compression test, then the cylinder may be cracked and further investigation is required. If a cracked cylinder assembly is found, then replace all affected parallel valve cylinder and head assemblies fitted on the engine, before further flight.
2. Replacement:
 Remove and replace all parallel valve cylinder and head assemblies listed in Table 1 of MSB 634, dated 11 October 2018, or later FAA approved revision. Affected parallel valve cylinder and head assembly listed in Table 1 of MSB 634 shall not be overhauled, refurbished, or repaired and returned to service. From the effective date of this AD, an affected parallel valve cylinder and head assembly listed in Table 1 of MSB 634, shall not be installed on any engine.

Compliance:

1. Inspection:
 Within the next 50 hours TIS and thereafter at intervals not to exceed 50 hours TIS until requirement 2 of this AD is accomplished.

2. Replacement:
 Replace all affected cylinder and head assemblies at the next engine overhaul.

Effective Date: DCA/LYC/224 - 25 October 2018
 DCA/LYC/224A - 28 February 2019

*** 2024-21-02 Connecting Rod Assemblies - Inspection**

Applicability: Lycoming engines that are fitted with an affected part and P/N, and were assembled within the ship date range specified in Table 1 to paragraph (c) of FAA AD 2024-21-02.

Note: Affected P/N parts are known to be installed on Lycoming AEIO-320 series, AEIO-360 series, AEIO-390 series, AEIO-540 series, AEIO-580-B1A, AIO-320 series, AIO-360 series, HIO-360 series, HIO-390-A1A, HIO-540-A1A, HO-360 series, IO-320 series, IO-360 series, IO-390 series, IO-540 series, IVO-360-A1A, IVO-540-A1A, LHIO-360 series, LIO-320 series, LIO-360 series, LO-360 series, LTIO-540 series, LTO-360 series, O-233-A1, O-235 series, O-320 series, O-340 series, O-360 series, O-435 series, O-540 series, SO-580 series, TEO-540 series, TIGO-541 series, TIO-360 series, TIO-540 series, TIO-541 series, TIVO-540-A2A, TO-360 series, TVO-435 series, TVO-540-A1A, VO-360 series, VO-435 series, VO-540 series, and VSO-580-A1A engines.

Effective Date: 5 December 2024