

Airworthiness Directive Schedule

Engines

Superior Air Parts 320, 360, 382 and 400 Series

17 December 2020

- Notes:**
1. This AD schedule is applicable to Superior Air Parts (SAP) 320, 360, 382 and 400 series engines manufactured by Superior Air Parts, Inc.
 2. The Federal Aviation Administration (FAA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these engines. State of Design ADs can be obtained directly from the FAA website at http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet
 3. The date above indicates the amendment date of this schedule.
 4. New or amended ADs are shown with an asterisk *
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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 http://www.caa.govt.nz/airworthiness-directives/states-of-design/ 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.		
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DCA/SAP/1A Superior Air Parts Cylinders – Replacement

Applicability: Superior Air Parts (SAP) cast cylinder assemblies P/Ns SL32000W-A1, SL32000W-A20P, SL32000W-A21P, SL32000WH-A1, SL32000WH-A20P, SL32006W-A1, SL32006W-A20P, SL32006W-A21P, SL36000TW-A1, SL36000TW-A20P, SL36000TW-A21P, SL36000TW-A22P, SL36000W-A1, SL36000W-A20P, SL36000W-A21P, SL36006W-A1, SL36006W-A20P and SL36006W-A21P, that may be fitted to Superior Air Parts (SAP) 360 series engines.

Note 1: The affected cylinder assembly S/N range in this AD has been revised to narrow the applicability even further. Accomplishment of DCA/SAP/1 satisfies the requirements of this AD.

Note 2: For a complete list of affected engines refer to Superior Air Parts Mandatory Service Bulletin (MSB) B06-01, revision E, dated 24 January 2007.

Requirement: To prevent cylinder head fatigue failure and separation at the head-to-barrel threaded interface that could lead to engine failure, accomplish the following:

1. Inspect the aircraft log books to determine which cast cylinder assemblies are fitted.

If the aircraft log books do not list the P/Ns of the cylinders fitted to the engine, then visually inspect the engine to determine which cylinders are fitted.

Replace cylinder assemblies S/N 47LE053559 through to 47LF053643, and 47SE054212 through to 47SF054251, and 52D0531708 through to 52H0532197, and 55E05223 through to 55G05289, and 32WE059006 through to 32WF059067, and 32WHE05379 through to 32WHE05392, and 326WF055517 through to 326WF055532, and 36TWF05430 through to 36TWG05453, and 36WF058058 through to 36WG058124, and 366WE056944 through to 366WF057061, and 366WF057150 through to 366WF057232, and 366WF057259 through to 366WG057534, and 366WG057556, 366WG057569, 366WG057598, 366WG057616, 366WG057621, 366WG057624, and 366WJ057770 through to 366WJ057776, and 366WL058131, per Superior Air Parts Mandatory SB B06-01, revision E, dated 24 January 2007.

Note 3: These affected S/Ns were manufactured between April 2005 and November 2005.

Note 4: The affected SAP cylinder head flanges are marked: SA47000L-A1, SA47000L-A20P, SA47000S-A1, SA47000S-A20P, SA47000S-A21P, SA52000- A1, SA52000-A20P, SA52000-A21P, SA52000-A22P, SA52000-A23P, SA55000-A1, or SA55000- A20P or SL32000W-A1, SL32000W-A20P, SL32000W-A21P, SL32000WH-A1, SL32000WHA20P, SL32006W-A1, SL32006W-A20P, SL32006W-A21P, SL36000TW-A1, SL36000TW-A20P, SL36000TW-A21P, SL36000TW-A22P, SL36000W-A1, SL36000W-A20P, SL36000W-A21P, SL36006W-A1, SL36006W-A20P or SL36006W-A21P.

2. Affected Superior Air Parts cast cylinder assemblies listed in Requirement 1 of this AD may not be installed on any engine.
(FAA AD 2007-04-19R1 refers)

Compliance: 1. At 150 hours TTIS (on affected SAP cylinders), or within the next 10 hours TIS, whichever is the later.

2. From the effective date of this AD.

Effective Date: DCA/SAP/1 - 12 March 2007
DCA/SAP/1A - 26 April 2007

DCA/SAP/2 Cancelled – DCA/SAP/3 refers**Effective Date:** 24 February 2012**DCA/SAP/3 AVStar Fuel Servos – Inspection and Replacement****Applicability:** All Superior Air Parts (SAP) fuel injected engines fitted with a AVStar Fuel Systems, Inc. (AFS) fuel servo diaphragm P/N AV2541801 or P/N AV2541803.**Note:** This AD supersedes DCA/SAP/2 to expand the applicability to include additional affected engines. Affected fuel servos and fuel servo diaphragms are listed in AFS MSB No. AFS-SB6 revision 2, dated 6 April 2011. This SB remains unchanged since the issue of superseded DCA/SAP/2.**Requirement:** To prevent fuel servo failure which could result in loss of engine power and aircraft control, accomplish the following:

1. Review the aircraft records and determine if an AFS fuel servo diaphragm P/N AV2541801 or P/N AV2541803 from an affected production lot listed in AFS MSB No. AFS-SB6 revision 2, dated 6 April 2011 was installed in the fuel servo any time after 20 May 2010.

If the fuel servo is found fitted with an affected diaphragm, replace the fuel servo before further flight

2. Fuel servos with an affected AFS fuel servo diaphragm P/N AV2541801 or P/N AV2541803 from the production lots listed in AFS MSB No. AFS-SB6 revision 2 shall not be fitted to any aircraft.
(FAA AD 2012-03-06 refers)

Compliance:

1. Within the next 5 hours TIS unless previously accomplished.
2. From 24 February 2012.

Effective Date: 24 February 2012

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 <http://www.caa.govt.nz/airworthiness-directives/states-of-design/>. 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.

2009-02-03 Fuel Injection Servos – Inspection

Applicability: All Superior Air Parts IO-360 series engines.

Note: Compliance with DCA/MA/16 (FAA AD 2009-02-03 refers) satisfies the requirements of this AD.

Compliance: Initial compliance required before the issue of a New Zealand Certificate of Airworthiness, or at the next Review of Airworthiness (RA), whichever is the sooner, unless previously accomplished. Repetitive inspections, if required, are to be accomplished at intervals not to exceed the times specified in the FAA AD.

Effective Date: 31 January 2019

*** 2020-25-12 Crankshaft Assemblies – Inspection**

Applicability: All Superior Air Parts IO-360 series and O-360 series engines listed in the applicability of FAA AD 2020-25-12.

Note: Affected engines are fitted with a Superior Air Parts, Inc. (SAP) crankshaft assembly, P/N SL36500-A20, or P/N SL36500-A31, with S/N 82976-01; 82976-02; SP12-0003 through to SP12-0089, inclusive; S/N SP13-0034 through to SP13-0150, inclusive; or S/N SP14-0151 through to SP14-0202, inclusive.

Effective Date: 15 January 2021