

Airworthiness Directive Schedule

Engines

Pratt & Whitney Piston Series

2 July 1999

The date above indicates the amendment date of this schedule.

New or amended ADs are shown with an asterisk *

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DCA/P&W/101 Exhaust Push Rod/Auxiliary Drive Lubrication - Modification

Applicability: All model S3C4-G Twin Wasp (R1830)

Requirement: To prevent failure, accomplish the following:

1. Remove from service all rods made from 'Dural' tube 0.5625" x 13 SWG.
2. Install rods made from 'Dural' tube 0.5625" x 11 SWG, or Chrome Molybdenum steel tube 0.5625" x 17 SWG (P/N CAC 900733).
3. Prior to rod installation, inspect internally and externally for freedom from machining cracks, nicks, undercutting or malformation due to poor fitting of ball ends. Also ensure presence of ½" min. radius at tube change of section (except 0.554" x 11 SWG 'Dural' tube).

To improve lubrication of auxiliary drive shaft, accomplish the following:

1. Incorporate Pratt & Whitney SB's 560; 420 and 713; 700; 580; 496 and 867; 806; 946.
2. Enlarge the four holes in bushing P/N 52684 (1830-90 D only) to improve oil supply to low pressure system (see item 6 of drg NA 2059). Also, incorporate an annulus in rear cover per item 9 of drg NA 2059.

Compliance: By 31 October 1957

Effective Date: 30 November 1955

DCA/P&W/102 Crankshaft Threads - Modification

Applicability: All model R985 and R1340

Requirement: Modify per Pratt & Whitney SB 1488 Rev C

Compliance: At next overhaul

Effective Date: 31 October 1957

DCA/P&W/103 Cancelled - DCA/P&W/104 refers**DCA/P&W/104 Cam Reduction Gears - Modification**

Applicability: All model R985

Requirement: Modify per Pratt & Whitney SB 1671 Supp. No. 1 Rev A (FAA AD 66-14-04 refers)

Compliance: At next overhaul

Effective Date: 31 August 1962

DCA/P&W/105A Crankshaft Flyweights and Flyweight Liners - Inspection and Removal

Applicability: All model R985 and R1340 series

Requirement: Inspect, rework and/or renew parts per Pratt & Whitney SB 1758 Rev B (FAA AD 68-09-01 refers)

Compliance: At next overhaul

Effective Date: 31 July 1966

DCA/P&W/106 Cylinder Attachment - Inspection

- Applicability:** All model R985, R1340 and R1830 series
- Requirement:** Inspect per Pratt & Whitney SB 1567 Rev A and Supp. 1, and torque cylinder flange attachment nuts per Pratt & Whitney SB 1000
- Compliance:** Whenever engine is disassembled
- Effective Date:** 31 January 1957

DCA/P&W/107 Exhaust Valves - Renewal

- Applicability:** All model R1830 series
- Requirement:** To prevent possibility of in-flight failure, renew exhaust valves in nos. 1, 3 and 5 cylinders
- Compliance:** At next and each subsequent overhaul
- Effective Date:** 30 September 1966

DCA/P&W/108 Piston Pins/Crankshaft - Modification

- Applicability:** All model R985
- Requirement:** Install heavy duty piston pins and rework crankshaft per Pratt & Whitney SB 1730
- Compliance:** At next overhaul
- Effective Date:** 31 August 1969
- NZCAR Part III leaflets C7-1, C7-3, C7-5 and C7-7 hereby cancelled*

DCA/P&W/109 Crankshaft Counterweights - Inspection

- Applicability:** Wasp Models S1H1 and S3H1, and model R-1340-AN-1 (military) reciprocating engines, incorporating Air Tractor PMA crankshafts, P/N 90114. These engines may be installed on but not limited to; Ag Cat G-164A, G-164B, G-164C and North American AT-6 series. This AD is not applicable to crankshafts incorporating improved counterweights, Air Tractor P/N 90133-1 and 90134-1.
- Requirement:** To prevent engine failure due to crankshaft counterweight failure, accomplish the following:-
- Inspect visually and using dye-penetrant technique, the crankshaft counterweights for cracks per Snow Engineering SL 135. If cracks are found, prior to further flight, remove from service and rework the crankshaft by replacing cracked counterweights per SL 134, or replace with a serviceable part.
- Remove from service and replace crankshaft counterweights per SL 134. Incorporation of the improved counterweights, Air Tractor P/N 90133-1 and 90134-1, constitutes terminating action to the repetitive inspections. (FAA AD 96-15-02 refers)
- Compliance:**
1. At 300 hours TTIS or within next 10 hours TIS, whichever is the later. Thereafter inspect at intervals not to exceed 150 hours TIS until reworked per SL 134. Also inspect if a cylinder is removed for any reason.
 2. At next overhaul or at the next crankshaft removal, whichever occurs first
- Effective Date:** 30 August 1996

DCA/P&W/110 Cylinders - Inspection

Applicability: Model R-1340 series, including Wasp S1H1, S1H1-G, S1H2, S1H4, S1H5-G, S3H2, R-1340-61 under Type Certificate E-129, Wasp S3H1-G, R-1340-59 under Type Certificate E-142, and Wasp S3H1 under Type Certificate E-143.

These engines are installed on but not limited to the Air Tractor AT-301 and Ag Cat Corporation G-164A.

Requirement: To prevent cylinder head cracking, which can result in engine power loss, forced landing, and damage to the aircraft, accomplish the following:-

1. Perform visual inspections of cylinders for head cracking, and replace cracked cylinders with serviceable parts per PW SB 1787, dated September 7, 1983.

2. Perform a fluorescent penetrant inspection of cylinders for head cracking, and replace cracked cylinders with serviceable parts per PW SB 1787.

(FAA AD 99-11-02 refers)

Compliance: 1. Visual Inspection

For cowled and baffled installations, inspect within 125 hours TIS and thereafter at intervals not to exceed 250 hours TIS. For all other installations, inspect within 50 hours TIS and thereafter at intervals not to exceed 100 hours TIS.

2. Fluorescent Penetrant Inspection

At the next cylinder overhaul and at each subsequent overhaul.

Effective Date: 2 July 1999