

Airworthiness Directive Schedule

Propellers & Propeller Governors

Hamilton Standard Series

29 September 2016

- Notes**
1. This AD schedule is applicable to the Hamilton Standard series propellers.
 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 propellers. State of Design ADs applicable to these engines can be obtained directly from the FAA web site. The link to the FAA web site is available on the CAA web site at http://www.caa.govt.nz/Airworthiness_Directives/states_of_design.html
 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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DCA/HP/1 Blades - Face Alignment Checks

- Applicability:** All 6800, 6900 and 7000 series externally surface-treated aluminium alloy blades (airfoil shotpeened and/or shank rolled, including nickel plated blades)
- Requirement:** Accomplish checks detailed in Hamilton Standard SB's 546 and 546A.
(FAA AD 58-22-1 refers)
- Compliance:** Before further flight following removal of propeller for inspection or overhaul
- Effective Date:** 1 April 1959

DCA/HP/2 Blades - Shank Corrosion

- Applicability:** All Hamilton Standard aluminium alloy blades used in Hydromatic propellers except blades with integrally moulded chafing rings (refer page 7 of overhaul manual 130B) and blades incorporating corrosion barriers per Hamilton Standard SB's 390, 414 and 414A, provided barrier is in good condition
- Requirement:** Inspect and rework blades in accordance with Hamilton Standard SB 508 and supplementary SB's 508A, 508B and 508C.
(FAA AD 57-13-5 refers)
- Compliance:** Whenever propeller blade is removed from hub
- Effective Date:** 1 April 1959

DCA/HP/3 Dome Cap to Lever Sleeve Bushing Clearance - Inspection

- Applicability:** Model 23260, 24260, 34D50, 34D51, 34E60, 45E60 and 43H60 propellers incorporating pitch locks
- Requirement:** Inspect, rework and/or replace per Hamilton Standard SB 496D.
(FAA AD 58-08-04 refers)
- Compliance:** At overhaul
- Effective Date:** 1 April 1959

DCA/HP/4 Governor Solenoid Valve Assembly - Inspection and Modification

- Applicability:** Governor models 4U18 and 5U18 with S/N's below WH87433
- Requirement:** Unless already accomplished:
1. Inspect for presence of oil hole plugs and install or replace as required per Hamilton Standard SB's 528 and 528A.
 2. Either remove solenoid valve mounting gasket P/N 60912 and rework to or replace with gasket P/N 322778 or P/N 322779 per Hamilton Standard SB's 536 and 536A or, alternatively, rework control body solenoid per Hamilton Standard SB's 536B and 536C.
(FAA AD 58-03-02 refers)
- Compliance:** At next governor overhaul
- Effective Date:** 1 April 1959

DCA/HP/5 Governor Body Screw Holes - Inspection and Rework

Applicability: All two-flyweight type governors models 4U18 and 5U18

Requirement: Unless already accomplished, inspect governor body solenoid assembly mounting screw holes per Hamilton Standard SB's 518 and 518A.
(FAA AD 57-16-04 refers)

Compliance: Not later than next governor overhaul

Effective Date: 1 April 1959

DCA/HP/6 Counterweight Bearing Shaft - Inspection

Applicability: All Hamilton Standard and De Havilland type 2D30, 3D40 and 12D40 propellers

Requirement: Unless already accomplished perform the following:

1. Remove the propeller counterweight cap, counterweight adjusting screw and nuts.
2. Remove grease from head of shaft P/N 53546.
3. Examine head of shaft for all of the following marks "53546J", "X LO" (contained in oval stamp) and "SK".
4. Remove any shaft so marked for hardness testing. The shaft should be 26.6 to 32.6 Rockwell "C" scale. Any shaft not within this range shall be rejected.

Note: To facilitate examination of the shaft head remove split pin locking the shaft and rotate shaft with allen key

Compliance: Within the next 100 hours TIS

Effective Date: 1 May 1966

DCA/HP/7 Overspeed Inspection

Applicability: All Hamilton Standard hydromatic propellers with aluminium blades

Requirement: Inspect per Hamilton Standard SB's 597 and 597A

Compliance: Before further flight following overspeed

Effective Date: 1 September 1959

DCA/HP/8 Post Impact Inspection

Applicability: All Hamilton Standard propellers with aluminium blades

Requirement: Inspect per Hamilton Standard SB's 596A and 596C.
(FAA AD 64-03-03 refers)

Compliance: Before further flight following impact or suspect impact with solid object or substance

Effective Date: 1 September 1959

DCA/HP/9 Counterweight Set Installation - Inspection

Applicability: All model 33LF-325 propellers
Requirement: Inspect per Hamilton Standard SB 23LF/33LF No. 1
Compliance: Not later than next overhaul
Effective Date: 1 October 1967

DCA/HP/10 Blade Root - Inspection

Applicability: Model 12D40 propellers with blades P/N 6101A-12
Requirement: Remove blades and visually inspect root ends for cracks, especially where chafing ring makes contact with blade root
Compliance: At intervals not exceeding 600 hours TIS
Effective Date: 1 February 1970

DCA/HAM/11 Barrel Assembly - Inspection

Three cases have been reported of cracks occurring in the front or rear barrel halves around the blade thrust bearing retention lips

Applicability: Model 12D40 propellers installed on Rockwell Commander model 600 S-2D (Snow) and model S-2R (Thrush)

Requirement: Clean outer surface of barrel assembly and using a 10 power glass, inspect through-bolt bosses and circumference of barrel between bolt bosses for cracks.
 If cracked, replace before further flight

Compliance: At intervals not exceeding 100 hours TIS
Effective Date: 31 March 1978

DCA/HAM/12B Aluminium Blades – Inspection and Repair/Replacement

Applicability: Hydromatic (noncounterweighted) propellers 22D30, 22D40, 23D40, 23E50, 23E60, 24D50, 24E60, 33D50, 33E60, 34D50, 34D51, 34E60, 43D50, 43D51, 43E60 and 43H60 fitted with aluminum blades and use engine oil for pitch control.

These propellers are fitted to, but not limited to, Beech D17 and D18 aircraft, Boeing 377 series aircraft, Canadair Model 4 and CL-215 aircraft, Curtiss-Wright C-46 aircraft, DeHavilland DHC-2, DHC-3, and DHC-4 aircraft, General Dynamics (Convair) T-29, 240, 340, and 440 series aircraft, Gulfstream American (Grumman) G-12A, G164, F4U, S-2F, TBM, and W-2F series aircraft, Lockheed L-10, L-12, 049, 749, 1049, 1649 series aircraft, Martin 202 and 404 series aircraft, McDonnell Douglas B-26, DC-3, DC-4, DC-6, and DC-7 series aircraft, North American AT-6, B-25, P-51, SNJ-5, T-6 and T-28 aircraft.

Note 1: This AD is not applicable to propellers with integral oil control or propellers with steel blades.

Note 2: This AD revised to increase the repetitive propeller inspection interval every 4 years (if no corrosion is found at the 36 month re-inspection) to a maximum of 5 years per CAA Rule 91.603(f) and reference FAA AD 81-13-06R2.

Requirement: To prevent propeller blade failure due to corrosion and fatigue, inspect propeller blades for corrosion in the blade fillet and shank area, particularly under the teflon friction reduction strip and the resin corrosion barrier per Hamilton Standard Aluminum Blade Overhaul Manual No. 130B, dated 1 March 1980.

If corrosion is found in the fillet or shank area of any blade, replace or repair the blade per Aluminum Blade Overhaul Manual No. 130B before further flight.

Note 3: Disassembled propeller blades preserved per Blade Overhaul Manual No. 130B need not include the storage time when computing the time since last inspection.

(FAA AD 81-13-06R2 refers)

Compliance: By 26 June 2009 or within 18 months since last inspection whichever occurs later, unless already accomplished.

If corrosion is found beyond repairable limits inspect thereafter at intervals not to exceed 18 months since the last inspection.

If the corrosion is within repairable limits or blades have no corrosion, re-inspect within the next 36 months. If corrosion is beyond repairable limits, the 18 month inspection interval must be reinstated.

If no corrosion is found at the 36 month re-inspection, the inspection interval may be increased to a maximum of 5 years. If corrosion is beyond repairable limits, the 18 months inspection interval must be reinstated. If the corrosion is within repairable limits, the 5 year inspection interval may be retained.

Effective Date: DCA/HAM/12 - 7 August 1989

DCA/HAM/12A - 4 May 1990

DCA/HAM/12B - 26 March 2009

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http://www.caa.govt.nz/Airworthiness_Directives/states_of_design.html

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.

* **50-12-01** **Propeller Blades Model 11C1 (Navy 4350, 4350F & 4350F1) – Inspection**

Compliance: 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 to be accomplished at the intervals specified in the FAA AD.

Effective Date: 29 September 2016