# **Airworthiness Directive Schedule**

# Aeroplanes De Havilland DH60 Series (Moth) 26 April 2018

#### Notes:

- 1. This AD schedule is applicable to De Havilland DH60 (Moth) series aircraft.
- 2. The UK CAA is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) and Mandatory Permit Directives (MPDs) for these aircraft.

State of Design ADs are listed in UK CAA CAP 476 and CAP 747, which can be obtained from the UK CAA web site at <a href="http://www.caa.co.uk/Commercial-Industry/Aircraft/Airworthiness/Continuing-airworthiness/Airworthiness-Directives/">http://www.caa.co.uk/Commercial-Industry/Aircraft/Airworthiness/Continuing-airworthiness/Airworthiness-Directives/</a>

Prior to July 2003, UK ADs for UK products were a number only linked to a CAA declared Mandatory Service Bulletin issued by the Type Certificate Holder. If you have the SB you have the AD. These AD and SB numbers are listed in CAP 476, which is current at final issue (September 2004) and no longer amended. Those Service Bulletins remain mandatory, unless cancelled and/or superseded by a new AD. Mandatory Requirements issued by the UK CAA are available for download from the UK CAA web site until they are published in UK CAA publication CAP 747.

 State of Design MPDs are listed in CAP 661 and can be obtained form the UK CAA web site at <a href="http://www.caa.co.uk/Commercial-">http://www.caa.co.uk/Commercial-</a> Industry/Aircraft/Airworthiness/Continuing-airworthiness/Mandatory-Permit-Directives/

UK CAA CAP 661 contains all issued MPDs up until 31 January 2012, when the publication ceased to be amended. The MPDs in CAP 661 remain valid and are not 'withdrawn', unless stated on the UK CAA web site at <a href="http://www.caa.co.uk/Commercial-Industry/Aircraft/Airworthiness/Continuing-airworthiness/Mandatory-Permit-Directives/">http://www.caa.co.uk/Commercial-Industry/Aircraft/Airworthiness/Continuing-airworthiness/Mandatory-Permit-Directives/</a>, where the entry will state that it has been cancelled/superseded.

- 4. The date above indicates the amendment date of this schedule.
- 5. New or amended ADs are shown with an asterisk \*

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From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and you can obtain them directly from the National Airworthiness Authority (NAA) web sites. Links to the NAA web sites are available on the CAA web site 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		
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DCA/DH60/101 Control Box - Inspection

Applicability: All model DH.60

**Requirement:** Remove the rear seat and inspect the rearward extremities of the two longitudinal

spruce members of the control box for cracks at the attachment of the quadrant which

supports the elevator controls.

Cracked members must be renewed before further flight.

**Compliance:** At intervals not exceeding 12 months

Effective Date: 31 December 1969

DCA/DH60/102 Tie Rod Assembly - Inspection

Applicability: All model DH.60

Requirement: Tie rods have been assembled with the split pin holes at either end unequally spaced

from the machine centre line with the result that one hole was located behind the retaining nut, and another hole was drilled, in error, on assembly. Failures have

occurred at the hidden hole.

Prior to installation inspect tie rods for correct split pin hole spacing.

**Compliance:** At intervals not exceeding 12 months

Effective Date: 31 December 1969

DCA/DH60/103 Eye Bolts - Top Centre Section Spars - Inspection

Applicability: All model DH.60

**Requirement:** The stems of the four eye bolts securing the fuel tank and centre section struts to the

centre section spars are to be inspected for corrosion. Remove eye bolts for

inspection as follows:

1. Remove the port and starboard mainplanes complete.

2. Remove fuel tank.

Slacken off centre section bracing wires.

4. Remove centre section wood fairing.

5. Unsweat flange of each eye bolt, ensuring that heat is applied only to the flange.

Tap top end of bolt to assist loosening.

It is not necessary to re-sweat the bolts on re-assembly. Any bolts affected by

corrosion must be renewed.

**Compliance:** At intervals not exceeding 12 months

Effective Date: 31 December 1969

## DCA/DH60/104 Compression Leg Tie Rod - Inspection

**Applicability:** All model DH.60 **Requirement:** Inspect as follows:

1. Check that the nut at the lower end of the tie rod is of the standard  $\frac{1}{4}$  in. BSF slotted type.

2. Ensure that the threads of both nut and tie rod are serviceable.

3. Examine the upper end of the tie rod to ensure that the head formed by riveting is sufficiently tight against the piston to prevent it loosening during operation.

4. Ensure that the length of the tie rod is sufficient to accommodate the nut in safety.

If it is not the tie rod must be renewed.

**Compliance:** At intervals not exceeding 12 months

Effective Date: 31 December 1969

# DCA/DH60/105 Security of Fibre Spacers - Bracing Wires - Inspection

Applicability: All model DH.60

Requirement: De Havilland TNS 226

Compliance: At intervals not exceeding 12 months

Effective Date: 31 December 1969

## DCA/DH60/106 Elevator Rock Shaft

Applicability: All model DH.60

Requirement: Inspect the elevator rock shaft for end play. If measurement exceeds 1/8 inch rework

in accordance with drawing EP 109 which is available from the Director on request.

**Compliance:** At intervals not exceeding 12 months.

Effective Date: 31 December 1969

Note: NZCAR Part III Leaflet B4-1 is hereby cancelled

# DCA/DH60/107A Datum Bolts - Inspection

Applicability: All model DH.60

Requirement: Inspect datum bolts per British Aerospace TNS 28 Issue 2. Rectify if necessary per

TNS 28 Issue 2 before further flight.

(UK CAA AD 002-10-97 refers)

**Compliance:** Within next 50 hours TIS or 3 months, whichever is the sooner.

Effective Date: DCA/DH.60/107 - 16 January 1998

DCA/DH.60/107A - 18 December 1998

DCA/DH60/108B Cancelled - De Havilland Support TNS No. 32 Issue 3 refers

Effective Date: 26 March 2009

DCA/DH60/109B Fuselage Lateral Tie Rods – Inspection and Life Limitation

**Applicability:** All model DH 60 series aircraft.

**Note 1:** Revision B of this AD revised to clarify the requirement.

**Requirement:** To prevent failure of the fuselage lateral tie rods, the port and starboard lower

fuselage longerons, and the spar joint fittings, accomplish the following:

Inspect the fuselage structure and the spar joint fittings, and repair/replace any defects found per the instructions in paragraph 2.A. of British Aerospace TNS 29

issue 3 or later UK CAA approved revisions.

Replace the aft and forward lateral fuselage tie rods per paragraph 2.A. of TNS 29

before further flight.

(UK CAA AD 006-10-97 refers)

Compliance: Within the next 50 hours TIS or by 17 January 2010 whichever occurs sooner, unless

previously accomplished within the last 2000 hours TIS or 18 years, and thereafter at

intervals not to exceed 2000 hours TIS or 18 years whichever occurs sooner.

**Note 2:** The 2000 hour/18 year life limitation applicable to the fuselage lateral tie rods is

classified mandatory by the UK CAA.

Effective Date: DCA/DH60/109 - 18 December 1998

DCA/DH60/109A - 29 October 2009 DCA/DH60/109B - 17 December 2009

DCA/DH60/110 Streamline Wires - Inspection and Replacement

Applicability: Model DH 60 (all variants) aircraft, fitted with stainless steel streamline wires

manufactured by Bruntons Aero Products Ltd or its predecessor companies.

**Requirement:** To prevent the fracture of one or more stainless steel streamline wires, which will

reduce the structural integrity of the aircraft, and may induce widespread structural failure, inspect the stainless steel streamline wires, per De Havilland Support Ltd Technical News Sheet (TNS) CT(MOTH) No 40. Replace as required, before further

flight.

**Note 1:** From the effective date of this AD, aerobatic manoeuvres and intentional spinning (if

permitted) are prohibited until the inspections of the streamline wires and replacement

(as required) is accomplished, per TNS 40.

Note 2: For the purposes of this AD, 'stainless steel' means BS S80, BS 970: 316 S16, or BS

970: 316 S31.

Note 3: Report the results of all inspections to de Havilland Support Ltd using the

Accomplishment Report proforma in TNS 40 Appendix B. If damage is detected, fax a

copy of the proforma to the Aircraft Certification Unit, CAA of NZ. (04 560 9452).

**Note 4:** Any protective coatings such as paint, clear or opaque plastic sleeving, must be

removed to accomplish the above inspection

(UK CAA G-2005-0025 refers)

Compliance: By 31 December 2005

Effective Date: 29 September 2005

From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and you can obtain them directly from the National Airworthiness Authority (NAA) web sites. Links to the NAA web sites are available on the CAA web site 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.

UK CAA AD G-2014-0002-E Lower Fuselage Tie-Rods - Inspection

Effective Date: 12 September 2014

UK CAA AD 007-03-99 Cockpit Safety Harness Installation – Inspection and Life Limitation

Applicability: De Havilland DH60, DH60G, DH60M, DH60X, DH82, DH82A, Queen Bee, DH83 and

DH94 series aircraft.

Requirement: To prevent safety harness failure, accomplish the instructions in British Aerospace

Mandatory Technical News Sheet (TNS) No. 33 issue 2, dated 21 March 2002, or

later revision.

(UK CAA MPD 2001-012R2 and UK CAA AD 002-12-2001R2 refer)

Note: For other aircraft types not covered by TNS No. 33, refer to UK CAA AD 002-12-2001

revision 2.

**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, and thereafter compliance is required with the

repetitive requirements specified in TNS No. 33.

Effective Date: 31 August 2017

#### \* DCA/DH60/111B

## **Croydon Manufactured Wing and Aileron Spars – Flight Limitation**

## Applicability:

De Havilland DH60 Moth series aircraft fitted with replacement wing spars manufactured by Croydon Aircraft Company Limited prior to 31 May 2008.

For DH60 Moth series aircraft, affected wing spar part numbers are as follows:

Wing spar position:	LH and RH P/N:
Top front	H27949A /C
Top rear	H27950A /C
Bottom front	H27951A /C
Bottom rear	H27952A /C

Wing spars may have been supplied under STC number 0/21E/3 issued 20 March 2003.

#### Note 1:

DCA/DH60/111B revised to introduce a one-time inspection of the <u>wing spars</u>. If the spar section properties conform to the original de Havilland design, then no further action is required, and the previous flight limitations can be removed.

## Requirement:

Review the aircraft records and determine if wing spars <u>manufactured</u> by Croydon Aircraft Company Limited (CACL) <u>prior to 31 May 2008</u> are fitted to the aircraft.

- 1. <u>If an affected wing spar is found installed</u>, then aerobatics or other flights involving high load factors, including flight in turbulant conditions <u>are prohibited</u> until requirement 2 of this AD has been accomplished.
- 2. If an affected wing spar is found installed, then measure the spar section and determine whether the spar section matches standard de Havilland practice with respect to the spar web cut-out. This can best be done by looking at the inner radius of the spar web cut-out, which should be a minimum of 0.5 inches radius. The incorrectly machined spars have a sharper radius of 0.25 of an inches.

If the wing spar section properties conforms to the original de Havilland design, then no further action is required, and the previous flight limitations can be removed.

If the wing spar section properties do not conform to the original de Havilland design, then report the details to the CAA by completing a CA005 Defect Report form. Please provide the spar part and serial numbers, a copy of the release documentation, and full dimensions of the spar section. The form can be obtained from <a href="http://www.caa.govt.nz/Forms/CA005D\_Form.pdf">http://www.caa.govt.nz/Forms/CA005D\_Form.pdf</a>. The completed form can be emailed to the CAA at CA005@caa.govt.nz.

# Note 2:

Following receipt of a CAA 005 Defect Report the CAA will review the incorrect spar shape and its structural effect, and advise if the spar can continue in service.

## Compliance:

- 1. From 4 August 2017 (the effective date of DCA/DH60/111).
- 2. At the next periodic inspection when the spar is accessible, or at the next 100 hour inspection, or at the next annual inspection, whichever is the sooner.

## **Effective Date:**

DCA/DH60/111 – 4 August 2017 DCA/DH60/111A – 10 August 2017 DCA/DH60/111B – 28 February 2018