

Airworthiness Directive Schedule

Propellers

MT-Propeller Series

28 August 2014

- Notes**
- This AD schedule is applicable to MT-Propellers manufactured under Luftfahrt-Bundesamt (LBA) and European Aviation Safety Agency (EASA) Type Certificate Numbers:

MT-Propeller Series:	Type Certificate Numbers:
MT-Fixed Pitch Series: MT() () -1 (); MT() () -2 (); MT() () -3 (); MT() () -4 () and MT() () -6 ().	EASA P.006
MTV-6 series	EASA P.094
MTV-7 series	LBA 32.130/84
MTV-9 series	EASA P.096
MTV-12 series	EASA P.013
MTV-14 series	EASA P.017
MTV-15 series	EASA P.098
MTV-16 series	EASA P.001
MTV-21 series	EASA P.101
MTV-27 series	EASA P.104

- The European Aviation Safety Agency (EASA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these propellers. State of Design ADs can be obtained directly from the EASA website at <http://ad.easa.europa.eu/>
- The date above indicates the amendment date of this schedule.
- 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. 7

2006-0345R1 Blade Leading Edge Protection – Inspection 7

DCA/MT/1 Canceled - DCA/MT/2 refers**Effective Date:** 30 November 2006**DCA/MT/2A Blade Leading Edge Protection – Inspection****Applicability:** Model MT- fixed pitch propellers, all S/N and

Model MTV-1, MTV-2, MTV-3, MTV-5, MTV-6, MTV-7, MTV-9, MTV-10, MTV-11, MTV-12, MTV-14, MTV-15, MTV-17, MTV-18, MTV-20, MTV-21, MTV-22 and MTV-24 variable pitch propellers, and

Manufactured before 1995 and not overhauled since April 1994.

These propellers are known to be installed on, but not limited to René Fournier RF4 aircraft, Apex ATL aircraft, Apex DR400 aircraft, Extra EA-300 aircraft, EADS Socata Rallye aircraft and Piper PA-46 aircraft.

Note 1: This AD revised to introduce EASA AD 2006-0345 revision 1 and clarify note 3. There is no change to the AD requirement. No action required if already in compliance with DCA/MT/2.

Requirement: To prevent sudden loss of the blade leading edge metallic erosion sheath, which could result in personal injury and damage to the aircraft, accomplish the following:

Inspect the bond of the blade leading edge metallic erosion sheath and inspect the propeller blade leading edge polyurethane (PU) protective strip per MT-propeller SB No. 8B dated 8 March 2006, or later EASA approved revisions.

Propeller blades with de-bonded or loose metallic sheaths must be replaced before further flight. Replace damaged or missing PU protective strips within the next 10 hours TIS.

(EASA AD 2006-0345R1 refers)

Note 2: Publications relevant to the requirements of this AD are MT-propeller Operation and Installation Manuals P/Ns E-112, E-118, E-124, E-148 and E-309.

Note 3: The pre-flight inspection requirement of this AD may be accomplished by adding the inspection requirement to the tech log. The visual inspection may be performed and certified under the provision in Part 43 Appendix A.1 (7) by the holder of a current pilot licence, if that person is rated on the aircraft, appropriately trained and authorised (Part 43, Subpart B refers), and the maintenance is recorded and certified as required by Part 43.

Compliance: At every pre-flight inspection and at intervals not to exceed 100 hours TIS.

Effective Date: DCA/MT/2 - 30 November 2006
DCA/MT/2A - 25 February 2010

DCA/MT/3 Pitch Control Unit – Inspection

Applicability: Model MTV-7 variable pitch propellers fitted with an Automatic Control Unit (ACU) P/N P-120-A with S/N 86-XXXX, 87-XXXX or 88-XXXX.

Requirement: To prevent unintended pitch change inflight from the cruise to the feathered position, replace or rework the printed circuit board of the ACU, per the instructions in MT Propeller SB No. 3 dated 22 March 1989.
(LBA AD 1989-108 refers)

Compliance: By 28 February 2009, unless previously accomplished.

Effective Date: 28 August 2008

DCA/MT/4 Propeller Blades – Inspection

Applicability: Model MTV-6 series propellers, S/N all through to 90023.

Note 1: Propellers which have been repaired or overhauled by the manufacturer after 12 July 1987 are not affected by this AD.

Requirement: To prevent inflight propeller blade loss, accomplish the following:

1. Inspect the blade roots per the instructions in MT-Propeller SB No. 4-A dated 8 April 1993.
2. Replace the blade root lag screws and increase the tightening torque per the instructions in SB No. 4-A.

Note 2: The inspection of the blade root in the wood/metal transition area is not easy. Since elastic silicon rubber sealant is used the detection of cracks are difficult. However, signs of loose sealant can indicate movement of the blade in the ferrule. In such instances the propeller must be removed from the aircraft.
(LBA AD 1990-214/2 refers)

Compliance:

1. At every preflight inspection until requirement 2 is accomplished.
2. Before accumulating 400 hours TSN or within the next 10 hours TIS for propellers which have exceeded 400 hours TSN.

Effective Date: 28 August 2008

DCA/MT/5 Pitch Control Unit – Inspection

Applicability: Model MTV- 7 series propellers fitted with an Automatic Control Unit P/N P-120-A or P-120-U and installed on powered gliders.

Requirement: To prevent inflight unintended pitch change to coarse or the feathered position, which could result in a decrease of engine RPM or RPM surging, amend the AFM per the instructions in MT-Propeller SB No. 6 dated 15 October 1992.

With the preflight check the green light must illuminate otherwise the flight must not continue. During take-off and in flight, monitor the engine/propeller RPM regularly. If there is an unnormal RPM decrease, or the RPM surges, immediately pull the circuit breaker for the Pitch Control Unit. End flight as soon as possible, and have the propeller inspected and repaired.
(LBA AD 1992-367 refers)

Compliance: Before further flight unless previously accomplished.

Effective Date: 28 August 2008

DCA/MT/6 Propeller Hub – Inspection

Applicability: Model MTV-3-B-C series propellers fitted with propeller blades P/N L250-21.

Requirement: To prevent propeller hub failure due to possible cracks developing between the hub and the propeller flange with high loads during some aerobatic manoeuvres, accomplish the following:

1. Inspect the area between the hub and propeller flange using a dye penetrant or an eddy current inspection method in accordance with an ASTM inspection method.

If any cracks are found replace the hub with a new hub P/N A-909-A, or modify the hub per MT-Propeller SB No. 12D, dated 8 Decemebr 1998, before further flight.

Note 1: Requirement 1 of this AD must be accomplished by an approved propeller maintenance organization, or the manufacturer.

Note 2: Crack inspection of modified or new hubs can be done without removing the propeller from the aircraft.

2. Modify the propeller hub per the instructions in MT-Propeller SB No. 12D. (LBA AD 1997-006/5 refers)

Compliance: 1. Within the next 50 hours TIS or by 28 September 2008, whichever occurs sooner, unless previously accomplished, and thereafter at intervals not to exceed 50 hours TIS or 6 months whichever occurs sooner.

For new hubs P/N A-909-A, S/N 97 onwards, inspect thereafter at intervals not to exceed 200 hours TIS or 12 months, whichever occurs sooner.

2. At the next 5 yearly propeller inspection or manufacturer calendar TBO, whichever is the sooner, unless previously accomplished.

Effective Date: 28 August 2008

DCA/MT/7 Propeller Blades – Inspection

Applicability: Model MTV-3-B-C series propellers, S/N all through 98XXX fitted with propeller blades P/N L250-21, or replacement blades produced up until 31 December 1998.

Requirement: To prevent blade failure and blade separation inflight, which could result in loss of aircraft control, check the torque of the lag screws on the affected blades per the overhaul manual E-220. A minimum torque of 88Nm (64 ftlb) must be applied. If a broken lag screw is found, or the screws have insufficient torque, replace all the screws with new lag screws per the instructions in MT-Propeller SB No. 17A dated 05 March 1999.

Note: The requirements of this AD must be accomplished in accordance with SB No. 17A by an approved propeller maintenance organization or the manufacturer. New lag screws P/N A-983-85 can be identified by a hexagonal head. (LBA AD 1999-082/2 refers)

Compliance: Before further flight if an unusual vibration cannot be eliminated by dynamic balancing, or if cracks are visible in the blade ferrule to blade shank transition area, or if shrink marks are visible in the blade shank area, or

Within the next 50 hours TIS or by 28 October 2008 unless previously accomplished, and thereafter at intervals not to exceed 100 hours TIS or 12 month, whichever occurs sooner until all the lag screws are replaced with new lag screws.

Effective Date: 28 August 2008

DCA/MT/8 Propeller Blade Lag Screws – Inspection

- Applicability:** Model MTV-9-B-C series propellers, S/N all through 98XXX fitted with blades P/N CL250-27 or CL260-27, or fitted with replacement blades produced up until 31 December 1998.
- Note 1:** These propellers are known to be installed on but not limited to Extra Flugzeugbau EA 300/L aircraft, Akrotech Industries G202 aircraft, MXR Technologies MX2 aircraft, Pitts S-2B aircraft, Stoddard-Hamilton Glasair III aircraft and SC Aerostar Yak-52TW aircraft.
- Requirement:** To prevent blade separation inflight, which could result in loss of aircraft control, check the torque of the lag screws by applying a minimum torque of 88Nm (64 ftlb) per overhaul manual E-220.
- If a lag screw with insufficient torque is found, or if a broken lag screw is found, replace all the lag screws per MT-Propeller SB No. 17A dated 05 March 1999 before further flight.
- Note 2:** New MT-Propeller lag screws P/N A-983-85 can be identified by a hexagonal head. (LBA AD 1999-081/2 refers)
- Compliance:** Within the next 50 hours TIS or by 30 June 2009 whichever occurs sooner unless previously accomplished, and
- Before further flight if unusual propeller vibrations occur which cannot be eliminated by dynamic balancing, or if cracks are visible in the area between the blade ferrule and blade shank, or if shrink marks are visible in the blade shank area, and
- Thereafter at intervals not to exceed 100 hours TIS or 12 months whichever occurs sooner until all lag screws are replaced per MT-Propeller SB No. 17A.
- Effective Date:** 30 April 2009

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.

2006-0345R1 Blade Leading Edge Protection – Inspection

Applicability: All MT- fixed pitch propellers and MTV- variable pitch propellers MTV-1, MTV-2, MTV-3, MTV-5, MTV-6, MTV-7, MTV-9, MTV-10, MTV-11, MTV-12, MTV-14, MTV-15, MTV-17, MTV-18, MTV-20, MTV-21, MTV-22 and MTV-24 manufactured before 1995 and not overhauled since April 1994.

These propellers are known to be installed on, but not limited to: René Fournier RF4, Apex ATL, Apex DR400, Extra EA-300, EADS Socata Rallye and Piper PA-46 aircraft.

Note: Compliance with DCA/MT/2A satisfies the requirements in EASA AD 2006-0345R1.

Effective Date: 29 January 2010