
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/PROP/1 Amdt 1 and issues the following AD under subregulation 39.1 (1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Propellers - General

**AD/PROP/1
Amdt 2**

Propellers - Overhaul

12/2003

Applicability: All propellers; other than propellers installed in:

1. Aircraft administered by an approved sports aviation body; and
2. Aircraft administered by the Australian Sport Rotorcraft Association; and
3. Aircraft issued with a special certificate of airworthiness under Civil Aviation Regulation (1998) 21.189 (1) (a) (ii); and
4. Aircraft issued with an experimental certificate under Civil Aviation Regulation (1998) 21.195A; and
5. Aircraft maintained under a system of maintenance.

Requirement: Overhaul:

Propellers, and components as listed in the propeller manufacturer's parts catalogue, shall be overhauled by an approved organisation using the manufacturers overhaul procedures, or other approved data.

Compliance: Overhaul:

Commencing the effective date of this Directive the propeller shall be overhauled in accordance with:

The propeller manufacturer's published TBO; or

The CASA TBO period as listed in Appendix 1 of this Directive.

Note 1: Where the manufacturer provides supporting data in allowing a temporary overrun to the published Time Between Overhaul (TBO) the operator can use the data provided.

This Amendment becomes effective on 27 November 2003.

Propellers - General

AD/PROP/1 Amdt 2 (continued)

Background: This amendment has been issued to detail which propellers are applicable to the Directive, details the standards required for overhaul and the required time between overhauls. References to minimum standards other than approved data have been removed and options for the compliance with the overhaul period have been included in the addition to the existing CASA published TBO period.

This Directive was issued to establish time in service periods and minimum overhaul requirements for propellers installed in Australian registered aircraft.

Amendment 1 of this Airworthiness Directive became effective on 29 January 1988.

The original issue of this Directive became effective on 1 January 1988.



Jim Coyne
Delegate of the Civil Aviation Safety Authority

17 October 2003

Propellers - General

AD/PROP/1 Amdt 2 (continued)

**AD/PROP/1 Amdt 2
Appendix 1**

Propellers - Overhaul

12/2003

VARIABLE PITCH TYPES

TBO Hours

AEROPRODUCTS	
FN-606 & 606A, A6441	2000

AEROMATIC	
F200 and F220 Series	600

AVIA PROPELLERS	
V300 and V400 Series	1000
New Avia V 500A propellers manufactured after 1 January 1994 or overhauled by Avia-Hamilton Standard Aviation (AHSA) after 18 April 1995.	
V 500 A Variant A	Normal 2000 Refer Note 11 Aerobatic 1400
V 500 A Variant B	Normal 1000 Refer Note 11 Aerobatic 700

BEECH AIRCRAFT	
200 Series	900

DE HAVILLAND	
PD30/211/1 (Proctor)	800
PD170/212/1 Non-Feathering (DH-114)	1000 1400 Subject to mods. 4282 (MNS39) 5236 (MNS68) and 1090 (MNS79) being embodied.

Propellers - General

AD/PROP/1 Amdt 2 (continued)

DE HAVILLAND (continued)	
PD190/212/1 Feathering (DH-114)	600 Refer Note 2. 1600 Subject to Mod 7108 or 14054 being embodied. Refer Note 2.
PD116/312/1 to /7 (DH-104)	1600 Refer Note 2.
PD143/312/1 to /7 (DH-104)	1600 Refer Note 2.
PD205/323/1 (Twin Pioneer)	800 Refer Note 2.
PD237/323/1 (Twin Pioneer)	1600 Subject to Mod 9388 being embodied Refer Note 2.
PD96/446/1 or /2 (Bristol 170 Mk 21)	1600 Refer Note 2.
PD122/446/1, /2, /3 (Bristol 170 Mk 31)	1600 Refer Note 2.

DOWTY ROTOL	
Type -/82-F/-except	4000
R306/3-82-F/7	2500
R321/4-82-F/8	5000
R333/4-82-F/12	6000
Type R4/5	500
Type R30/242/1or /4 (Anson 654)	1000
Type R40/556/1 (Sea Fury)	500
Types -/4-20-4/- and -4/-30-4/-	3000
Type R212/4-30-4/22 (Pre SB 61-902)	3000
Type R212/4-30-4/22 (Post SB 61-902)	4500
Types R320/4-123-F/1	Refer Note 5.
Types R354/4-123-F/13	Refer Note 5.

FLOTTORP	
F.12 Series	1200

GRUMMAN	
Adjustable	700

Propellers - General

AD/PROP/1 Amdt 2 (continued)

HAMILTON	
Models 22D30 and 22D40	1200 Refer Note 2.
Model 23D40	1600 Refer Note 2.
Model 43E60	2000 Refer Note 2.
Models 23LF and 33LF	1000
All Counterweight Non-Feathering Types	1000
HAMILTON & de HAVILLAND	
Model 23E50	2000 Refer Note 2.
Model 24D50	1200 Refer Note 2.

HARTZELL	
All feathering and non feathering types except HC-()(2,3)(X,V)()() and HA-A2V20-1B, propellers.	2000 Refer Note 4, 6 & 7. or 10 years Refer Note 8. Whichever comes first.
All HC-()(2,3)(X,V)()() and HA-A2V20-1B propellers excluding HC-A3VF-7() propeller.	1000 or 10 years.
All turbine models, including HCA3VF-7() propellers.	3000

HOFFMAN			
Hub Model	Basic Blade Model	Engine Model	Hours TIS between O/H
HO-V 42/48-()-()	All Models	Firth F10 ()	300
HO-V 42/48-()-() R	All Models	Firth F10 ()	200
		Rectimo 4 AR 1200	200
HO-V 62 ()	170Y	TCM/RR 0-200-()	200
HO-V 62 ()	All Models	SL 1700-()	1000
HO-V 62 ()	L 160 BT	L 2000-()	1000
	L 160 T		600
	L 160 BT	Grob 2500()	1400
HO-V 62H()	() 170 FA	Rotax 912-A4	800
HO-V 72()	All Models	Lyc. ()0-320-()	750

Propellers - General

AD/PROP/1 Amdt 2 (continued)

HOFFMAN (continued)			
Hub Model	Basic Blade Model	Engine Model	Hours TIS between O/H
HO-V 72()	() 170 DW	Rotax 912-A3	1000
HO-V 92()	195 C	Cont. () 0-470-()	1200
HO-V 113()	LD 150 + 2A	Lyc. 0-235 (Speed Canard)	400
HO-V 123()	185V	Franklin 6A350-C1	600
HO-V 123()	All Models	Avco-Lycoming, Porche, TCM	1200
HO-V 245	LD 120 CM	Allison	500
HO-E 315	122 EZ	Textron Lycoming IO-540 V4A5D	800
HO-V 343	180 FP	Lyc. () 0-360	400
HO-V 352	170 FQ	Rotax 912-A3	1000
Any propeller model not listed above			200
Any model used in aerobatics			Refer Hoffman SB No EIS Para 3e

McCauley	TBO Hours
All Feathering and non-feathering types not affected by McCauley SB No.88 (AD/PMC/20) shot peened blade retention threads, excepting where listed.	1500
All Feathering and non-feathering types incorporating threaded type hub affected by McCauley SB No.88 (AD/PMC/20) shot peened blade retention threads.	Pre Mod 1200 Post Mod 1500
When installed on agricultural aircraft.	1200
2A 34C 201	1500 Refer Note 10.
2A 37C 223	1500 Refer Note 10.
B2A 37C 228	1200
D3A 34C 401	2000
D3A 34C 402	2000

Propellers - General

AD/PROP/1 Amdt 2 (continued)

McCauley (continued)	TBO Hours
3FF 32C 501	2000
3AF 32C 504	2000
3AF 32C 505	2000
3AF 32C 511	2000
3AF 32C 512	2000
D3A 34C 403	2000
D3A 34C 404	2000
3A 32C 406	2000
D3A 32C 409	2000
3GFR 34C 601	3000
3GFR 34C 701	3500
3GFR 34C 702	3500
4HFR 34C 652	4000
4HFR 34C 754	3500
4HFR 34C 755	3500

MT Propellers	
All mt-variable pitch propellers	Refer Note 9.

Panstoeowe Zakłady Lotnicze (PZL) Warszawa-Okecie Propellers		
Model	From new to first overhaul	Subsequent overhauls
AW-2	2000	1500 Refer Note 12.
AW-2-30	2000	1500 Refer Note 12.

Propellers - General

AD/PROP/1 Amdt 2 (continued)

Fixed Pitch Types	
All Wooden propellers including all Hoffman	On Condition Refer Note 3.
Composite Propellers	In accordance with the manufacturer's published TBO periods.
Fairey metal propellers	1000
McCauley metal propellers	2200

Sensenich	
M76EM and 76EM (any suffix) installed on Lycoming O-360 engines	1000
M74DC and 74DC (any suffix) installed on Continental IO-346 engines	1000
All other Fixed Pitch Types	2000

Flottorp	
F.1 series	1200

Note 2: At each 500 hours time in service between overhaul and on any other occasion when its removal is necessary, the dome assembly shall be partially dismantled and cleaned of carbon and sludge.

Note 3: Attention is drawn to the regular inspection requirements for fixed pitch propellers contained in Civil Aviation Orders Part 107 - Airworthiness Directive AD/PFP/1 Amdt 3.

Note 4: For Hartzell propellers fitted to aerobatic aircraft each hour engaged in aerobatics shall be counted as equivalent to 2 hours normal flight time.

Note 5: Refer Dowty Rotol SB 61-996 Revision 18 for details of the TBO requirements and life sampling programme.

Note 6: For all model Hartzell propellers installed on Franklin 6A8-215, Bristol Siddeley Gipsy Queen 30 MK-2, Jacobs R-755 and Ranger 6-440-() engines, time in service between overhaul shall be 1000 hours or 10 years calendar time whichever occurs first. For all model Hartzell propellers installed on Franklin 6()-355 and 6()-350, time in service between overhaul shall be 1500 hours or 10 years calendar time whichever occurs first.

Note 7: Refer also to specific aeroplane schedules in the CAO 105 series for any applicable ultimate blade life limits.

Propellers - General

AD/PROP/1 Amdt 2 (continued)

Note 8: The start date for Calendar Years will be from the date the propeller is first installed on an engine. Propellers with zero hours since new or overhaul that have been in long term storage have additional inspection requirements. These are specified in Hartzell's Standard Practice Manual No 202A.

Note 9: For mt-propeller overhaul, flying hours or calendar time, storage, overspeed, ground strike or aerobatic requirements refer mt-propeller Service Bulletin 1 Revision X.

Note 10: 2400 hours TBO may apply. Refer McCauley Service Bulletin 137W.

Note 11: Refer Avia-Hamilton Standard, Ltd. Mandatory Bulletin V 500A/8a dated 18.4.1995 for limits on propeller service life and oil distributor limits.

Note 12: PZL Warszawa SB No 139108 received under SL Nr LTK-4/07/M-18/93 dated 93-03-08 refers.