European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

Number : P.177
Issue : 01
Date : 18 February 2014
Type : Aleš KŘEMEN
KW-3(x) series propellers

Models
KW-30
KW-31

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I. General

1. Type/Models

KW-3(x) / KW-30, KW-31

2. Type Certificate Holder

Aleš KŘEMEN
Alšova 118
250 70 Odolena Voda - Dolínek
Czech Republic

Design Organisation Approval No.: EASA.AP250

3. Manufacturer

Woodcomp Propellers s.r.o.
Vodolská 4
250 70 Odolena Voda - Dolínek
Czech Republic

4. Date of Application

KW-30: 01 March 2013
KW-31: 01 March 2013

5. Reference Date for determination of the applicable requirements

01 March 2013

6. Certification Date

KW-30: 18. 02. 2014
KW-31: 18. 02. 2014

II. Certification Basis

1. Airworthiness Standards

CS-P Amendment 1 as published with ED Decision 2006/09/R dated 16 November 2006

III. Technical Characteristics

1. Type Design Definition

Each design configuration is defined by a main assembly drawing and an appropriate parts list.

The KW-30 propeller model covers the following design configurations.
Design Configuration "Constant Speed"
Drawing No. 30-000-000 dated 21 January 2014 (*1)
Above mentioned drawing contains Parts List

The KW-31 propeller model covers the following design configurations.
Design Configuration "Constant Speed"
Drawing No. 31-000-000 dated 21 January 2014 (*1)
Above mentioned drawing contains Parts List

(*1) effective is the declared issue or a later approved revision.

2. Description

The KW-30, resp. KW-31, propeller models are 3-blade hydraulically, resp. electrically controlled variable pitch propellers. Provided that the power unit is equipped by hydraulic, resp. electric governor the propellers could work as a constant speed propeller.

The hub is milled out of aluminium alloy and the blades are made of wood with glass or carbon composite covering layer. The leading edge of the blade is protected by the metal stamping.

3. Equipment

Spinner: according to Aleš KŘEMEN Service Bulletin No. 2

Governor: according to Aleš KŘEMEN Service Bulletin No. 3

4. Dimensions

KW-30: Propeller diameter: max. 175 cm (69")
KW-31: Propeller diameter: max. 175 cm (69")

5. Weight

Propeller-Design Configuration
KW-30: approx. 11,0 kg (24,25 lb)
KW-31: approx. 12,5 kg (27,55 lb)

6. Hub/Blade-Combinations

Hub	Blade-Type
KW-30	-031, -033, -034
KW-31	-031, -033, -034

7. Control System

Propeller governors as listed in Aleš KŘEMEN Service Bulletin No. 3.

8. Adaptation to Engine

Adaptation to engine as listed in Aleš KŘEMEN Service Bulletin No. 4.

9. Direction of Rotation

Direction of rotation (viewed in flight direction) as identified by a letter-code in the propeller designation. (see chapter VI.3.). The left-hand version of an approved propeller model is approved at the same rating and diameter as listed for the right-hand model.

IV. Operational Limits

1. Approved Installations:

Propeller installation will be approved only on aeroplanes at which the bird strike test is not required. Acceptable propeller/engine/aircraft combination and the corresponding limitations are identified in Service Bulletin No. 5.

2. Propeller Speed:

max. 2550 min^{-1}

3. Max. Take-Off Power:

KW-30: 85 kW (115 HP)
KW-31: 85 kW (115 HP)

4. Max. Continuous Power:

KW-30: 85 kW (115 HP)
KW-31: 85 kW (115 HP)

4. Propeller Pitch Angle:

Maximum pitch change range +8° ↔ +40° - measured at 75% radius station

V. Operating and Service Instructions

User´s Manual	KW-30	UM-06, Rev.0, dated 21 January 2014 [*]
	KW-31	UM-05, Rev.0, dated 21 January 2014 [*]
Overhaul Manual	KW-30	TN-21, Rev. 0, dated 21 January 2014 [*]
	KW-31	TN-22, Rev. 0, dated 21 January 2014 [*]
Service Bulletins	KW-3(x)	as noted in the current List of Service Bulletins

[*] or later approved revision

VI. Notes

1. The EASA approved Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness is published in the applicable "User`s Manual" document, chapter 17 "Airworthiness Limitations Section". This ALS section is empty because no life limit is necessary for these models.

2. The overhaul intervals recommended by the manufacturer are listed in Aleš KŘEMEN Service Bulletin No. 1.

3. Propeller designation system:

HUB:

1	KW Aleš KŘEMEN Co., Alšova 118, 250 70 Odolena Voda – Dolínek, Czech Republic	
2	No. of propeller model	
3	Code letter for propeller category: A - Automatic Propeller F - Fixed Pitch Propeller G - Ground Adjustable Propeller V - Variable Pitch Propeller	
4	Code letter for blade pitch change system: H – Hydraulic E – Electric M – Mechanical	
5	Number of blades installed	
6	Code letter for feathering system:	F – Feather position installed 0 – No feather position possible
7	Code letter for reverse provision:	R – Reverse position installed 0 – No reverse position possible
8	Code letter for flange type	listed in Aleš KŘEMEN Service Bulletin No. 4

BLADE :

9	Code letter for blade design and installation: R: - Right-hand tractor RP: - Right-hand pusher L: - Left-hand tractor LP: - Left-hand pusher	
10	Propeller diameter in cm	
11	No. of blade type (contains design configuration and aerodynamic data) according to the certified hub/blade-combinations.	
