European Aviation Safety Agency

EASA

TYPE-CERTIFICATE
DATA SHEET

Number : P.031
Issue : 05
Date : 12 August 2013
Type : Avia Propeller Ltd.
AV-725 series propellers

Models
AV-725-1

List of effective Pages:

Page	1	2	3	4	5	6											
Issue	05	05	05	05	05	05											

I. General

1. Type/Models

AV-725/AV-725-1

2. Type Certificate Holder

Avia Propeller Ltd.
Beranových 65/666
199 00 Praha 9 – Letňany
Czech Republic

Design Organisation Approval No.: EASA.21J.072

3. Manufacturer

Avia Propeller Ltd.
Beranových 65/666
199 00 Praha 9 – Letňany
Czech Republic

4. Date of Application

AV-725-1: 29 June 2010

5. Reference Date for determination of the applicable requirements

29 June 2010

6. Certification Date

AV-725-1: 04 July 2011

II. Certification Basis

1. Airworthiness Standards

CS-P Amendment 1 as published with ED Decision 2006/09/R dated 16 November 2006 except the CS-P 550 and CS-P 560 as allowed by CS-P 10(b), see note 1.

Compliance with CS-P550 has been shown with Major Change Approval 10041433.
Compliance with CS-P560 has been shown with Major Change Approval 10041932.

III. Technical Characteristics

1. Type Design Definition

The AV-725-1 propeller model covers the following design configurations. Each design configuration is defined by a main assembly drawing and an appropriate parts list.

AV-725-1-( )-C-F-R(W)
Design Configuration “Constant Speed, Feather, Reverse (System Walter)”
Drawing No. 116-0000 dated February 3, 2011 (*1)
Parts List No. R-116-0000 dated February 3, 2011 (*1)

AV-725-1()-C-F-R(P)
Design Configuration „Constant Speed, Feather, Reverse (System Pratt&Whitney)“
Drawing No. 116-0002 dated May 14, 2012(*1)
Parts List No. R-116-0002 dated March 13, 2012 (*1)

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

2. Description

5-blade variable pitch propeller with a hydraulically operated blade pitch change mechanism providing the operation modes “Constant Speed”, “Feather”, and “Reverse”. The hub and the blades are milled out of aluminium alloy.
Optionally the propeller may have installed a spinner and ice protection equipment..

3. Equipment

Spinner: according to Avia Propeller Service Bulletin No. 2

Governor: according to Avia Propeller Service Bulletin No. 3

Ice Protection: according to Avia Propeller Service Bulletin No. 4

4. Dimensions

Propeller diameter: max.235 cm

5. Weight

Propeller-Design Configuration
“Constant Speed, Feather, Reverse”: approx. 77 kg

6. Hub/Blade-Combinations

Hub	Blade-Type
AV-725-1	-433

7. Control System

Propeller governors as listed in Avia Propeller Service Bulletin No. 3.

8. Adaptation to Engine

ARP 880 Flange.

9. Direction of Rotation

Right-hand tractor (viewed in flight direction).

IV. Operational Limits

1. Propeller Speed:

max. 2080 min^{-1}

2. Max.Take-Off Power:

635 kW

3. Max.Continuous Power:

635 kW

4. Propeller Pitch Angle:

maximum pitch change range 105° - measured at 75% radius station

V. Operating and Service Instructions

Operation and Installation Manual	P/N EN-1320 Date of Latest Issue/Revision Issue 3, November 5, 2010 (*)
Overhaul Manual	P/N EN-1291 Date of Latest Issue/Revision Issue 4, September 17, 2012 (*)
Overhaul Manual for Metal Blades	P/N EN-1370 Date of Latest Issue/Revision Issue 5, February 06, 2012 (*)
Service Bulletins	as noted in the current List of Service Bulletins

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

VI. Notes

1. This Propeller has been certificated in accordance with CS-P subparts A, B and C. Compliance with the requirements of Subpart D, which is specific to each aircraft installation, has been shown with EASA Major Change Approvals 10041433 and 10041932.

2. The EASA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness is published in the applicable "Propeller Operation and Installation Manual" document, chapter 1. "Airworthiness Limitations".

3. Propeller designation system:

Hub / Blade
AV - 725 - 1 - E - ( ) - ( ) - ( ) - ( ) - ( ) - ( ) / ( ) ( ) 235 – 433 ( )
1 2 3 4 5 6 7 8 9 10 11 1 2 3 4 5

Hub

1 Avia Propeller (manufacturer)

2 V - Variable Pitch Propeller

3 Blade Root Type

4 Number of Blade

5 No. of variant of the propeller model

6 code letter for flange type
- B = AS-127-D, SAE No.2 mod., ½ inch - 20 UNF bolts
- D = ARP 502
- E = ARP 880
- K = M14 Flange

7 code letter for counterweights
- blank = no or small counterweights for pitch change forces to decrease pitch
- C = counterweights for pitch change forces to increase pitch

8 code letter for feather provision
- blank = no feather position possible
- F = feather position installed

9 code letter for reverse provision
- blank = no reverse position possible
- R = reverse position installed

10 code letter for reverse system
- (W) = System Walter
- (P) = System Pratt&Whitney

11 code letter for design changes
small letter for changes which do not affect interchangeability
capital letter for changes which restrict or exclude interchangeability

Blade

1 code letter for position of pitch change pin
- blank = pitch change pin position for pitch change forces to decrease pitch
- C = pitch change pin position for pitch change forces to increase pitch
- CF = pitch change pin position for feather provision; pitch change forces to increase pitch
- CR = pitch change pin position for reverse provision; pitch change forces to increase pitch
- CFR = pitch change pin position for feather and reverse provision; pitch change forces to increase pitch

2 code letter for blade design and installation
- blank = right-hand tractor
- RD = right-hand pusher
- L = left-hand tractor
- LD = left-hand pusher

3 propeller diameter in cm

4 No. of blade type (contains design configuration and aerodynamic data) according to the certified hub/blade – combinations

5 code letter for design changes
small letter for changes which do not affect interchangeability of blade set
capital letter for changes which restrict or exclude interchangeability of blade set

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