



TYPE-CERTIFICATE DATA SHEET

No. P.010

for
AV-723 series propellers

Type Certificate Holder

Avia Propeller Ltd.

Beranovych 65/666
199 00 Praha 9 – Letnany
Czech Republic

For Models:

AV-723-1



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TABLE OF CONTENTS

I. General	4
1. Type/ Model	4
2. Manufacturer	4
3. Date of Application	4
4. EASA Type Certification Date	4
II. Certification Basis	4
1. Reference Date for determining the applicable airworthiness requirements	4
2. EASA Certification Basis	4
2.1. Airworthiness Standards	4
2.2. Special Conditions	4
2.3. Equivalent Safety Findings	4
2.4. Deviations	5
III. Technical Characteristics	5
1. Type Design Definition	5
2. Description	5
3. Equipment	5
4. Dimensions	6
5. Weight	6
6. Hub/ Blade- Combinations	6
7. Control System	6
8. Adaptation to Engine	6
9. Direction of Rotation	6
IV. Operating Limitations	6
1. Maximum Take Off Power and Speed	6
2. Maximum Continuous Power and Speed	6
3. Propeller Pitch Angle	6
V. Operating and Service Instructions	7
VI. Notes	7
SECTION: ADMINISTRATIVE	9
I. Acronyms and Abbreviations	9
II. Type Certificate Holder Record	9
III. Change Record	9



I. General

1. Type/ Model

AV-723 / AV-723-1

2. Manufacturer

Avia Propeller Ltd.
Beranovych 65/666
199 00 Praha 9 – Letnany
Czech Republic

3. Date of Application

AV-723-1			
05 April 2000			

Note: Application was made to CAA Czech Republic before EASA had been established.
The application date has also been used as reference date for determining the applicable airworthiness standards effective in Czech Republic at that time.

4. EASA Type Certification Date

AV-723-1			
25 October 2001			

Note: EASA Type Certification of this model had previously been covered by Czech Republic .Type Certificate No. 01-01.

II. Certification Basis

1. Reference Date for determining the applicable airworthiness requirements

05 April 2000

2. EASA Certification Basis

2.1. Airworthiness Standards

- FAR 35 Amdt.35-6 dated August 18, 1989

2.2. Special Conditions

None

2.3. Equivalent Safety Findings

None

2.4. Deviations

None

III. Technical Characteristics

1. Type Design Definition

1. Type Design Definition:

The AV-723-1 propeller model covers the following design configurations, which mainly have a different mechanical design of the blade pitch change mechanism, and each one of the design configuration optionally may have different versions of the hub flange. Each design configuration is defined by a main assembly drawing and an appropriate parts list.

AV-723-1-(*1) and AV-723-1-(*1)-C
Design Configuration "Constant Speed"
Drawing No. 091-0000 dated April 19, 2006 (*2)
Parts List No. R-091-0000 dated March 14, 2005 (*2)

AV-723-1-(*1)-C-F
Design Configuration "Constant Speed, Feather"
Drawing No. 091-0001 dated March 23, 2005 (*2)
Parts List No. R-091-0001 dated March 21, 2005 (*2)

Note:

- (*1) optionally different versions of hub flange available
 - B = AS-127-D, SAE No.2 mod., ½ inch bolts
 - C = SAE No. 2 mod., 7/16 Inch - 20 UNF bolts
 - D = ARP 502
- (*2) effective is the declared issue or a later approved revision.

2. Description

3-blade variable pitch propeller with a hydraulically operated blade pitch change mechanism providing the operation modes "Constant Speed" and "Feather". The hub and blades are milled out of aluminum 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. 204 cm

5. Weight

Propeller-Design Configuration

“Constant Speed”: approx. 38 kg

“Constant Speed, Feather”: approx. 40 kg

6. Hub/ Blade- Combinations

Hub	Blade-Type
AV-723-1	-401, -415, -427 – 436

7. Control System

Hydraulically operating governors corresponding to the data of Avia Propeller Service Bulletin No. 3.

8. Adaptation to Engine

Hub flanges corresponding to the particular letter in the propeller designation (see chapter VI.3.)

9. Direction of Rotation

Sense of rotation (viewed in flight direction) corresponding to the particular letter in the propeller designation (see chapter VI.3.).

IV. Operating Limitations

1. Maximum Take Off Power and Speed

max. 2800 min⁻¹

2. Maximum Continuous Power and Speed

max. 157 kW for a propeller-diameter/-speed of max. 204 cm / 2800 min⁻¹

max. 261 kW for a propeller-diameter/-speed of max. 204 cm / 2700 min⁻¹

3. Propeller Pitch Angle

from +10° to +85°



V. Operating and Service Instructions

Operation and Installation Manual for hydraulically controlled variable pitch propeller	No. EN-1366 Issue May 15, 2006 (*)
Overhaul Manual and Parts List for hydraulically controlled variable pitch propeller	No. EN-1367 Issue December 3, 2004 (*)
Service Bulletins	as noted in the current List of Service Bulletins

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

VI. Notes

1. The suitability of a propeller for a certain aircraft/engine-combination must be demonstrated within the scope of the type certification of the aircraft.
2. The overhaul intervals recommended by the manufacturer are listed in Avia Propeller Service Bulletin No. 1.
3. Propeller designation system

Hub	/	Blade
AV - 723 - 1 - B - () - () - () - () - ()	/ () ()	204 - 401 ()
1 2 3 4 5 6 7 8 9 10 11	1 2 3	4 5

Hub

- 1 Avia Propeller (manufacturer)
- 2 A – Automatic Propeller
F – Fixed Pitch Propeller
G – Ground adjustable Propeller
V – Variable Pitch Propeller
- 3 Blade Root Type
- 4 Number of Blade



4. No. of variant of the propeller model

5. code letter for flange type

A = Motorglider engines bolt, 7/16 inch - 20 UNF, circle dia 80 mm

B = AS-127-D, SAE No.2 mod., ½ inch - 20 UNF bolts

C = SAE No. 2 mod., 7/16 Inch - 20 UNF bolts

D = ARP 502

E = ARP 880

F = SAE No. 1., 3/8 inch - 24 UNF bolts

G = Walter/LOM flange M 10 bolts

H = PW 115, 9/16 inch – 18 UNF

K = M14 Flange

6. 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

7. code letter for feather provision

blank = no feather position possible

F = feather position installed

8. code letter for reverse provision

blank = no reverse position possible

R = reverse position installed

9. code letter for reverse system

(A) = System Allison

(G) = System Garrett

(M) = System Muhlbauer

(P) = System Pratt & Whitney

(W) = System Walter

10. 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

SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

n/a

II. Type Certificate Holder Record

n/a

III. Change Record

Issue	Date	Changes	TC issue
Issue 03	15 July 2015	Hub/Blade - Combinations	
Issue 04	20 July 2015	Editorial Change	

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