European Aviation Safety Agency

EASA

TYPE-CERTIFICATE
DATA SHEET

Number : P.024
Issue : 01
Date : 14 July 2009
Type : Avia Propeller Ltd.
V 410 series propellers

Variants
V 410
V 410A
V 410AT
V 410T
V 410F

List of effective Pages:

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

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I. General

1. Type/Variants

V 410/ V 410A/ V 410AT/ V 410T/ V 410F

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

V 410	V 410A	V 410AT	V 410T	V 410F
22.5.1958	11.03.1960	11.03.1960	11.03.1960	25.9.1965

5. Reference Date for determination of the applicable requirements

22 May 1958 (for later updated amendments 11 March 1960 and 25 September 1965 was used).

6. Certification Date

V 410	V 410A	V 410AT	V 410T	V 410F
22.8.1958	17.11.1960	17.11.1960	17.11.1960	14.12.1965

Type certification of the V 410 series propeller model has been covered previously by Czech Republic Type certificate No.783/58, Amendment 1 incl. and partly by No.9 339/60 and No.65-03.

II. Certification Basis

1. Airworthiness Standards

Initially §9 of the Civil Aviation Law No.47/1956, dated 1 October 1956 (Czechoslovakia) and ICAO Standards.

Later compliance with
British Civil Airworthiness Requirements (BCAR), Section C, Issue 4, dated 1st March, 1957 and Issue 5, dated 1st July, 1962.

Note:
Application was made to CAA - Czech Republic (former Czechoslovakia) before EASA was established. The applicable airworthiness standards were established in accordance with the rule in Czech Republic (former Czechoslovakia) at the time of application.

III. Technical Characteristics

1. Type Design Definition

The V 410 propeller model covers the following design configuration. Design configuration is defined by a main assembly drawing and an appropriate parts list.

V 410
Design Configuration “Manually actuated or Constant speed, Feather”
Drawing No. V410-0000 dated June 26, 2009 (*1)
Parts List No. R-V410-0000 dated June 26, 2009 (*1)

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

2. Description

2-blade variable pitch propeller with an electrically operated blade pitch change mechanism providing the operation modes “Manually actuated or Constant speed, Feather”. The hub is milled out of steel 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.195 cm

5. Weight

Propeller-Design Configuration
“Manually actuated or Constant speed, Feather”: - approx. 26 kg

6. Hub/Blade-Combinations

Hub	Blade-Type
V 410( )	-1800, 1850, -1900, -1950

7. Control System

Propeller governors and electrically operating control units as listed in Avia Propeller Service Bulletin No. 3.

8. Adaptation to Engine

V 410, V 410A, V 410AT, V 410T - special cone on the engine shaft.
V 410F - flange, AS-127, No.3

9. Direction of Rotation

V 410, V 410A, V 410AT, V 410T - left-hand tractor (viewed in flight direction).
V 410F - right-hand tractor (viewed in flight direction).

IV. Operational Limits

1. Propeller Speed:

V 410 - max. 2700 min^{-1}
V410A, V 410AT, V 410T, V 410F, - max. 2800 min^{-1}

2. Max.Take-Off Power:

V 410, V 410A, V 410AT, V 410T - max.164 kW
V 410F - max.134 kW

3. Max.Continous Power:

V 410, V 410A, V 410AT, V 410T - max.164 kW
V 410F - max.134 kW

4. Propeller Pitch Angle:

V 410, V 410A, V 410AT, V 410T - from +12° to +90° measured at reference station
V 410F - from +12° to +30° measured at reference station

V. Operating and Service Instructions

Operation and Installation Manual	P/N E-1652 Date of Latest Issue/Revision Issue 1, June 26, 2009 (*)
Overhaul Manual	P/N E-1653 Date of Latest Issue/Revision Issue 1, June 26, 2009 (*)
Overhaul Manual for Metal Blades	P/N EN-1370 Date of Latest Issue/Revision Issue 2, March 17, 2009 (*)
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 the propeller for a given 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. EASA Type Certificate and Type Certificate Data Sheet No.P.024 replace CAA - Czech Republic Type Certificate and Type Certificate Data Sheet No.783/58, Amendment 1 incl., No.9 339/60 and No.65-03.
