

Intentionally left blank

I. General

1. Type / Variants:
WD4-51-051

2. Type Certificate Holder:

Aircraft Design & Certification Ltd.
Reichensteinstrasse 48
69151 Neckargemünd
Germany

Alternative Design Organisation Approval No.: AP-117

3. Manufacturer:

Aircraft Design & Certification Ltd.
Reichensteinstrasse 48
69151 Neckargemünd
Germany

4. Date of Application:
28 August 2006

5. Certification Date:
12 December 2008

II. Certification Basis

1. Reference Date for determination of the applicable airworthiness standards:
28 August 2006

2. Certification Basis:

2.1 Airworthiness Standards:
CS-22 dated 14 November 2003, Subpart J

2.2 Special Conditions (SC):
None

2.3 Deviations:
None

2.4 Equivalent Safety Finding (ESF):
None

III. Technical Characteristics

1. Type Design Definition:

Type Design Definition Propeller WD4-51-051 Issue A dated 24 September 2004 and WD4-C1-003 Issue C dated 19 January 2009 or later approved revisions.

2. Description:

Mechanical actuated 3-blade variable pitch propeller with propeller blades constructed of composite materials and aluminium hub.

3. Equipment:

None

4. Dimensions:

- Overall diameter: 1.72 m
- Adjustable range 65°

5. Weight:

Blade: 1.4 kg
Hub: 4.8 kg
Max. total weight: 10.5kg

6. Hub/Blade-Combinations:

Hub WD4-51-501 / Blade WD4-51-053

7. Control System:

Mechanical pushrod system

8. Adaptation to Engine:

Hub drilling, see drawing WD4-51-051

9. Sense of Rotation:

Sense of rotation (viewed in flight direction) clockwise

IV. Operational Limits

1. Propeller Speed:

Max. 2500 min⁻¹

2. Driving Power:

Max. 86 kW

3. Driving Torque:

Max. 350 Nm

4. Propeller Life:

Propeller life is limited to 6.000 flight hours.

V. Operating and Service Instructions

Service Instructions and Maintenance Checks according Airplane Maintenance Manual WD4-MM-E Chapter 61, February 2007 or later approved revision.

VI. Notes

1. Propeller WD4-51-051 is approved for installation on powered sailplane and VLA aircraft only.
