TYPE-CERTIFICATE DATA SHEET

No. P.037

for Propeller
FLAIR-2 Series

Type Certificate Holder
SOCIETE DUC

Aérodrome de Villefranche-Tarare
289 Avenue Odette et Edouard Durand
69620 Frontenas
France

For Models:
H-FLR2_5-D-I_C

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I. General

1. Type / Models
FLAIR-2 / H-FLR2_5-D-I_C

2. Type Certificate Holder
SOCIETE DUC
Aérodrome de Villefranche-Tarare
289 Avenue Odette et Edouard Durand
69620 Frontenas
France

Design Organisation Approval No.: None

3. Manufacturer
SOCIETE DUC
Aérodrome de Villefranche-Tarare
289 Avenue Odette et Edouard Durand
69620 Frontenas
France

4. Date of Application
30 April 2014

5. EASA Type Certification Date
07 July 2016

II. Certification Basis

1. Reference Date for determining the applicable airworthiness requirements
30 April 2014

2. EASA Certification Basis

2.1. Airworthiness Standards
CS-P amendment 1, dated November 16, 2006

2.2. Special Conditions (SC)
None

2.3. Equivalent Safety Findings (ESF)
None

2.4. Deviations
None

III. Technical Characteristics

1. Type Design Definition
Part List DH_FLR2_BE_04_E dated 28/03/2018
(See note 2)

2. Description
Five blade, ground adjustable pitch propeller. The hub is machined in aluminium alloy, the blades are made of carbon fibre reinforced composite and are protected by a nickel sheath.

3. Equipment
The propeller is optionally equipped with a carbon and glass fibre reinforced composite cone, and/or a spacer.

4. Dimensions
Diameter: 168 cm

5. Weight
11.3 kg

6. Hub / Blade Combinations

Model	Half Hubs	Blade
H-FLR2_5-D-I_C	DMFLR2R-5-AV DMFLR2R-5-AR	FLR2-D-I_C

7. Control System
N/A

8. Adaptation to Engine
Engine SAE2 flange with AN6 bolts
Engine SAE2 flange with AN8 bolts

9. Direction of Rotation
Right, viewed in flight direction

IV. Operating Limitations

1. Approved Installations

In accordance with paragraph 21.A.14(c), SOCIETE DUC have chosen for demonstration of capability to provide the Agency with the certification programme required by point 21.A.20(b). As a consequence, the propeller is restricted for installation on ELA1 aircraft.
This propeller has been tested for endurance on a piston engine.

Propeller	Aircraft	Engine
H-FLR2_5-D-I_C	DR400-180 R	Lycoming O-360 A3A

2. Maximum Take Off Power and Speed

	Max. Take Off Power (kW)	Max. Take Off Speed (propeller rpm)	Diameter (cm)
H-FLR2_5-D-I_C	134 (180 hp)	2700	168

3. Maximum Continuous Power and Speed

	Max. Continuous Power (kW)	Max. Continuous Speed (propeller rpm)	Diameter (cm)
H-FLR2_5-D-I_C	134 (180 hp)	2700	168

4. Propeller Pitch Angle

Pitch is measured at 20 cm from the blade tip.

V. Operating and Service Instructions

Manuals	
Manuel d'instruction Hélice 5-pale FLAIR-2 Certifiée	DH_FLR2_BE_03_B 19/03/2018
Instruction Manual 5-blade Inconel FLAIR-2 Certified Propeller	DH_FLR2_BE_05_B 19/03/2018

Instructions for Continued Airworthiness (ICA)	
Manuel d'instruction Hélice 5-pale FLAIR-2 Certifiée chapter 7. "Maintien de Navigabilité"	DH_FLR2_BE_03_B 19/03/2018
Instruction Manual 5-blade Inconel FLAIR-2 Certified Propeller chapter 7. "Maintain of Airworthiness"	DH_FLR2_BE_05_B 19/03/2018
Manuel d'instruction TBO	DH_TBO_BE_01_A (to be published)
Service Bulletins	as published by SOCIETE DUC

VI. Notes

1. The EASA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness is published in the applicable “Manuel d’instruction” or “Instruction Manual”, chapter 7.1 "Limites de Navigabilité" or 7.1 “Airworthiness Limitations”.

2. Propellers produced in accordance with Part List DH_FLR2_BE_04_D dated 01/07/2016 are not airworthy. Compliance with SOCIETE DUC Service Bulletin Number BS-2017-001 allows propeller modification to the new approved Part List DH_FLR2_BE_04_E dated 28/03/2018.

SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

N/A

II. Type Certificate Holder Record

N/A

III. Change Record

TCDS Issue	Date	Changes	TC Issue Date
Issue 01	07 July 2016	Initial Issue	Initial Issue, 07 July 2016
Issue 02	01 June 2018	Change of Type Certificate Holder's address. Introduction of Part List DH_FLR2_BE_04_E dated 28/03/2018. Change of propeller weight. Adaptation to Engine SAE2 flange with AN6 bolts. Amended "Manuel d'instruction" and new "Instruction Manual". Amendment of note 1 and addition of note 2 (certificate 10065634)	01 June 2018

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