



TYPE-CERTIFICATE DATA SHEET

No. P.038

for Propeller

FLASH H-FSH_3-D-R_I_()_C Series

Type Certificate Holder

SOCIETE DUC

t/a DUC Hélices Propellers

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

For Models:

H-FSH_3-D-R_I_RX_C

H-FSH_3-D-R_I_AN6_C

H-FSH_3-D-R_I_AN8_C



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I. General

1. Type / Models

H-FSH_3-D-R_I_()_C / H-FSH_3-D-R_I_RX_C, H-FSH_3-D-R_I_AN6_C, H-FSH_3-D-R_I_AN8_C

2. Type Certificate Holder

SOCIETE DUC
t/a DUC Hélices Propellers
Aerodrome de Villefranche-Tarare
289 Avenue Odette et Edouard Durand
69620 Frontenas
France

Design Organisation Approval No.: None

3. Manufacturer

SOCIETE DUC
Same address

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_FSH_BE_04_G dated 01/07/2016

Part List DH_FSH_BE_04_H dated 02/04/2019

2. Description

Three blade, ground adjustable pitch propeller. The hub and the blades are made of carbon fibre reinforced composite. The blades 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: 152 to 190 cm

5. Weight

H-FSH_3-D-R_I_RX_C: 5.6 kg maximum

H-FSH_3-D-R_I_AN6_C: 5.6 kg

H-FSH_3-D-R_I_AN8_C: 6 kg

6. Hub / Blade Combinations

Model	Half Hubs	Blade
H-FSH_3-D-R_I_RX_C	DMFSH-3-AV_RX_C DMFSH-3-AR_RX_C	FSH-D-R_I_C
H-FSH_3-D-R_I_AN6_C	DMFSH-3-AV_AN6_C DMFSH-3-AR_AN6_C	FSH-D-R_I_C
H-FSH_3-D-R_I_AN8_C	DMFSH-3-AV_AN8_C DMFSH-3-ARV_AN8_C	FSH-D-R_I_C

7. Control System

N/A

8. Adaptation to Engine

H-FSH_3-D-R_I_RX_C for BRP-Rotax 912 and 914 engine flange

H-FSH_3-D-R_I_AN6_C engine SAE flange with AN6 bolts

H-FSH_3-D-R_I_AN8_C engine SAE flange with AN8 bolts

9. Direction of Rotation

Right, viewed in flight direction



IV. Operating Limitations

1. Approved Installations

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 not yet been demonstrated. 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.

2. Maximum Take Off Power and Speed

	Max. Take Off Power (kW)	Max. Take Off Speed (propeller rpm)	Diameter (cm)
H-FSH_3-D-R_I_RX_C H-FSH_3-D-R_I_AN6_C H-FSH_3-D-R_I_AN8_C	120 (160 hp)	2700	152 to 190

3. Maximum Continuous Power and Speed

	Max. Continuous Power (kW)	Max. Continuous Speed (propeller rpm)	Diameter (cm)
H-FSH_3-D-R_I_RX_C H-FSH_3-D-R_I_AN6_C H-FSH_3-D-R_I_AN8_C	120 (160 hp)	2700	152 to 190

4. Propeller Pitch Angle

Pitch is measured at 25 cm from the blade tip.

V. Operating and Service Instructions

Manuals	
Manuel d'instruction Hélice Tripale FLASH-R Certifiée	DH_FSH-R_BE_03_B 06/05/2019
Instruction manual 3-blade propeller Certified FLASH-R	DH_FSH-R_BE_04_A 06/05/2019

Instructions for Continued Airworthiness (ICA)	
Manuel d'instruction Hélice Tripale FLASH-R Certifiée chapter 7. "Maintien de Navigabilité"	DH_FSH-R_BE_03_B 06/05/2019
Instruction manual 3-blade propeller Certified FLASH-R chapter 7. "Continuing airworthiness"	DH_FSH-R_BE_04_A 06/05/2019
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 Hélice Tripale FLASH-R Certifiée" document, chapter 7.1 "Limites de Navigabilité", and in the applicable "Instruction manual 3-blade propeller Certified FLASH-R", chapter 7.1 "Airworthiness limitations".



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	Amended, 01 June 2018
Issue 03	08 July 2019	Certification of Part List DH_FSH_BE_04_H. Clarification of installation on Rotax engines. Update of "Manuel d'instruction" and publication of "Instruction Manual" (Minor Change Approval 10070372)	01 June 2018

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