TCDS No.: P.503 Hoffmann Propeller Issue: 01 HO-V723 series propeller



Date: 12 April 2024

# TYPE-CERTIFICATE DATA SHEET

EASA.P.503

for

**HO-V723** series propellers

**Type Certificate Holder** Hoffmann Propeller GmbH & Co. KG

> Küpferlingstraße 9 83022 Rosenheim Germany

For Models: HO-V723M



Intentionally left blank

#### **TABLE OF CONTENTS**

I. General	4
1. Type/ Model	
2. Type Certificate Holder	4
4. Date of Application	
5. EASA Type Certification Date	4
II. Certification Basis	4
1. State of Design Authority Certification Basis	4
CS-P Amendment 2, dated 24 June 2020	4
2. Reference Date for determining the applicable airworthiness requirements	4
31 March 2021	4
3. EASA Certification Basis	4
3.1. Airworthiness Standards	4
3.2. Special Conditions	4
3.3. Equivalent Safety Findings	5
3.4. Deviations	5
None	5
III. Technical Characteristics	5
1. Type Design Definition	5
2. Description	5
3. Equipment	
4. Dimensions	
5. Weight	5
6. Hub/ Blade- Combinations	5
7. Control System	6
8. Adaptation to Engine	
9. Direction of Rotation	
IV. Operating Limitations	
1. Approved Installations	
2. Maximum Take Off Power and Speed	
3. Maximum Continuous Power and Speed	6
4. Propeller Pitch Angle	
V. Operating and Service Instructions	
VI. Notes	
SECTION: ADMINISTRATIVE	
I. Acronyms and Abbreviations	
II. Type Certificate Holder Record	
III. Change Record	8

HO-V723 series propeller

Date: 12 April 2024

TCDS No.: P.503 **Hoffmann Propeller** Issue: 01

#### I. General

## 1. Type/ Model

HO-V723 / HO-V723M

#### 2. Type Certificate Holder

Hoffmann Propeller GmbH & Co. KG Küpferlingstraße 9 83022 Rosenheim Germany

Design Organisation Approval No.: 21J.083

#### 3. Manufacturer

Hoffmann Propeller GmbH & Co. KG

Production Organisation Approval No.: DE.21G.0014

## 4. Date of Application

HO-V723M 19 December 2019

## **5. EASA Type Certification Date**

HO-V723M 12 April 2024

#### **II. Certification Basis**

1. State of Design Authority Certification Basis

CS-P Amendment 2, dated 24 June 2020

- 2. Reference Date for determining the applicable airworthiness requirements
- 31 March 2021

#### 3. EASA Certification Basis

## 3.1. Airworthiness Standards

CS-P Amendment 2, dated 24 June 2020

# 3.2. Special Conditions

None



TE.CERT.00050-002 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified. Page 4 of 8 Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

Hoffmann Propeller HO-V723 series propeller

Date: 12 April 2024

TCDS No.: P.503 Issue: 01

#### 3.3. Equivalent Safety Findings

None

#### 3.4. Deviations

None

#### **III. Technical Characteristics**

#### 1. Type Design Definition

The HO-V723 propeller models are defined by a main assembly drawing and associated parts list.

Drawing and BOM VP20-2059, Revision A, dated 07 December 2023 (or later HO-V723M: approved revisions)

#### 2. Description

The propeller type HO-V723 is a three bladed propeller. The propeller can be operated as ground adjustable propeller or in combination with a standard propeller governor as constant speed propeller. The hub is made of forged aluminium alloy. The blades have a wood composite structure and are covered by a composite fibre laminate. The blades are equipped with a leading edge protection device.

#### 3. Equipment

Equipment according to Hoffmann Propeller Service Bulletin SB060 (latest approved revision). All equipment must be approved as part of the aircraft installation regardless of manufacturer.

#### 4. Dimensions

Propeller diameter from 1.55m to 1.85m. (See table of section III. 6.)

#### 5. Weight

Propeller weight about 10 kg. (See table of section III. 6.)

#### 6. Hub/ Blade- Combinations

Hub Model	Blade Model	_	Maximum Continuous		imum e-Off	Diameter Limits	Slope Limits	Approx. Weight (For Ref. Only)	
[-]	[-]	[kW]	[RPM]	[kW]	[RPM]	[m]	[cm per	[kg]	
							Rotation]		
ЦО		101	2165	117	2280				
HO-	NR	73.5	2265	84.5	2390	1.55 – 1.85	50 - 250	10	
V723M		58	2425	59.6	2555				



TCDS No.: P.503 Hoffmann Propeller Issue: 01 HO-V723 series propeller

#### 7. Control System

Standard hydraulically propeller Governor with a maximum pressure of 24.13 bar (350 PSI) can be used. All governors must be approved as part of the aircraft installation.

Date: 12 April 2024

#### 8. Adaptation to Engine

Hub flanges as identified by a letter code in the propeller designation. (see VI.2)

#### 9. Direction of Rotation

Direction of rotation (viewed in flight direction) as identified by a letter code in the propeller designation. (see VI.2)

## **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.

This propeller has been tested for endurance on a piston engine.

The suitability of a propeller for a certain aircraft/engine combination must be demonstrated within the scope of the type certification of the aircraft. Propeller models listed herein consist of basic hub and blade models. Most propeller models include additional characters to denote minor changes and specific features as explained in VI.2.

#### 2. Maximum Take Off Power and Speed

Details are mentioned within Table of Section III.6.

#### 3. Maximum Continuous Power and Speed

Details are mentioned within Table of Section III.6.

#### 4. Propeller Pitch Angle

The HO-V723 propeller models have variable pitch capability or a ground adjustable.

Measured at 75% radius station:

HO-V723()-(): From +5° up to +50°

HO-V723()-()S: From +5° up to +85° (feathering propeller)

HO-V723()-()G: From +5° up to +50° (ground adjustable propeller)

## **V. Operating and Service Instructions**

Operation and Installation Manual DO990 (latest approved revision)
Component Maintenance Manual DO991 (latest approved revision)

Composite Propeller Blade Instruction Manual E573 (latest approved revision)



TE.CERT.00050-002 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified. Page 6 of 8 Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

**Hoffmann Propeller** HO-V723 series propeller

Date: 12 April 2024

TCDS No.: P.503 Issue: 01

## VI. Notes

- 1. The EASA approved Airworthiness Limitations Section of the ICA is published in the applicable "Operation and Installation Manual" document.
- 2. Propeller Designation System

Example HO-V723M-R/RA165NR150A:

Hub							Blade								
НО	-	V	72	3	М	-	R	()	/	R	Α	165	NR	150	Α
1		2	3	4	5		6	7		8	9	10	11	12	13

Hub	1	Hoffmann Propeller GmbH & Co. KG						
	2	Variable Pitch Propeller						
	3	Identification of basic propeller model						
	4	Number of blades						
	5	Flange type:						
		M = Bolt circle Ø80mm / (6x) 7/16-20 UNF studs						
	6	Orientation fork/ pitch change block:						
		R = Pitch change block on the right side						
		L = Pitch change block on the left side						
	7	Type of pitch change:						
		Blank = Constant speed no feathering.						
		S = Constant speed feathering.						
		G = Ground Adjustable.						
Blade	8	Sense of rotation:						
		R = Righthand / clockwise						
		L = Lefthand / counterclockwise						
	9	Position of pitch change pin						
		A = Tractor or Aerobatic pusher						
		B = Pusher or Aerobatic tractor						
		C = Tractor feathering						
		D = Pusher feathering						
	10	Propeller diameter in cm						
	11	Letter code for blade model						
	12	Nominal slope in cm per rotation						
	Options:							
		A = Nickel leading edge						
		B = PU leading edge						

- 3. The overhaul intervals recommended by the manufacturer are listed in Hoffmann Propeller Service Bulletin SB001 (latest approved revision).
- 4. The approved maximum over-speed is published in the applicable "Operation and Installation Manual" document.



TE.CERT.00050-002 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified. Page 7 of 8 Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

Hoffmann Propeller V723 series propeller

Date: 12 April 2024

TCDS No.: P.503 Issue: 01

# **SECTION: ADMINISTRATIVE**

# I. Acronyms and Abbreviations

Not Applicable

# **II. Type Certificate Holder Record**

Not Applicable

# **III. Change Record**

Issue	Date	Changes	TC issue
Issue 01	12 April 2024	Initial Issue	Initial Issue,
			12 April 2024

-END-