
TYPE-CERTIFICATE DATA SHEET

UK.TC.P.00052

For Propeller
DH5220/H/HP and LA604/HP

Type Certificate Holder
Hercules Propellers Limited
Canal Iron Works
Hope Mills
London Road
Stroud
Gloucestershire
United Kingdom GL5 2SH

AI/10077/16

Model(s): DH5220/H/HP
LA604/HP
Issue: 1
Date of issue: 4th January 2023

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I. General

1. Type / Variant or Model

DH5220/H/HP

LA604/HP

2. Type Certificate Holder

Hercules Propellers Limited

Canal Iron Works

Hope Mills

London Road

Stroud

Gloucestershire

United Kingdom GL5 2SH

AI/10077/16

3. Manufacturer

Hercules Propellers Limited

4. Date of Application

DH5220/H/HP and LA604/HP: 7 September 2022

5. UK-CAA Certification Reference Date

4th January 2023

6. CAA Type Certification Date

4th January 2023

II. Certification Basis

1. Reference Date for determining the applicable airworthiness requirements:

24 June 2020

2. CAA Certification Basis

2.1. Airworthiness Standards

DH5220/H/HP and LA604/HP: (UK) CS-P Amendment 2, 24 June 2020

2.2. Special Conditions (SC): None

2.3. Equivalent Safety Findings (ESF):

DH5220/H/HP and LA604/HP	(UK) CS-P 170	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 360	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 370	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 380	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 390	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 410	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 530	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 550	Service experience >1000 Hercules propellers of similar design and construction
DH5220/H/HP and LA604/HP	(UK) CS-P 560	Service experience >1000 Hercules propellers of similar design and construction

2.4. Deviations: None

III. Technical Characteristics

1. **Type Design Definition**

The DH5220/H/HP and LA604/HP propeller models are defined by a main assembly drawing and other detail drawings. The main assembly drawings are as follows

HP-600-1000 issue 1 dated 23 October 2022, DH5220/H/HP Propeller General Arrangement*

HP-600-1003 issue 1 dated 23 October 2022, DH5220/H/HP CAD Model*

HP-600-1010 issue 1 dated 23 October 2022, LA604/HP Propeller General Arrangement*

HP-600-1013 issue 1 dated 23 October 2022, LA604/HP CAD Model*

* Or later approved versions

2. Description

The DH5220/H/HP and LA604/HP propeller models are 2-blade fixed pitch propeller of laminated wood structure with a varnish or paint cover. The leading edge of the blade is protected by a composite erosion protection sheath.

3. Equipment

None

4. Dimensions

Propeller diameter:

DH5220/H/HP

LA604/HP

Centre of Gravity: 2.04in (51.85mm)

1.7 in (43,3 mm)

(Fwd of mounting face)

Maximum Length: 76.0 in (1930 mm)

78.0 in (1981 mm)

5. Weight

DH5220/H/HP

LA604/HP

14.99 lb (6,8 Kg)

13.67 lb (6,2 Kg)

6. Configurations

Various. Platform specific

7. Control System

Not Applicable

8. Adaptation to Engine

Gypsy Major standard hub attachment with eight bolts and a crush plate

9. Direction of Rotation

Direction of rotation anti-clockwise (viewed in flight direction).

IV. Operating Limitations

1. Approved Installations

De Havilland Tiger Moth DH82, DH82A, DH82C, DH82 Queen Bee.

Thrupton Jackaroo Mk 1 and Mk 3.

2. Maximum Take Off Power and Speed

Max. Take-Off Power (kW)	Max. Take-Off Speed (propeller rpm)
105.9	2400

3. Maximum Continuous Power and Speed

Max. Continuous Power (kW)	Max. Continuous Speed (propeller rpm)
91.0	2100

4. Propeller Pitch Angle

N/A

V. Operating and Service Instructions

Installation and Operation Manual Hercules Propellers manual HPM1002 (*)
Component Maintenance Manual Hercules Propellers manual 61-10-02 (*)
Service Bulletins, Service Letters, Service Instructions as published by Hercules Propellers
(*): or later approved revision

VI. Notes

1. The CAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness is published in HPM1002 Installation and Operation Manual, Airworthiness Limitations and Continued Airworthiness Maintenance Tasks Sections. No life limit is necessary for these models.
2. There are overhaul Intervals recommended by the manufacturer.

3. This propeller is certified for installation on the DH82, DH82A, DH82C, DH82 Queen Bee, and Thruxton Jackaroo Mk 1 and Mk 3 models, fitted with Gypsy Major 1, 1C, 1F and 1H, Gypsy Major 10-1 and 10-2 engines.

Section 5 Administration

I. Acronym / Abbreviation	Definition
ESF	Equivalent Safety Findings
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCH	Type Certificate Holder
UKCAA	UK Civil Aviation Authority

II. Type Certificate Holder Record

TCH Record	Period
Hercules Propellers Limited Canal Iron Works Hope Mills London Road Stroud Gloucestershire United Kingdom GL5 2SH	Present. No changes.

III. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	4th Jan 2023	Initial.	Issue 1 4th Jan 2023

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