

IMPORT REQUIREMENTS:

To be considered eligible for installation on U.S. registered aircraft, each propeller to be exported to the United States shall be accompanied by a Certificate of Airworthiness for export endorsed by the UKCAA on behalf of the European Community which contains the following language:

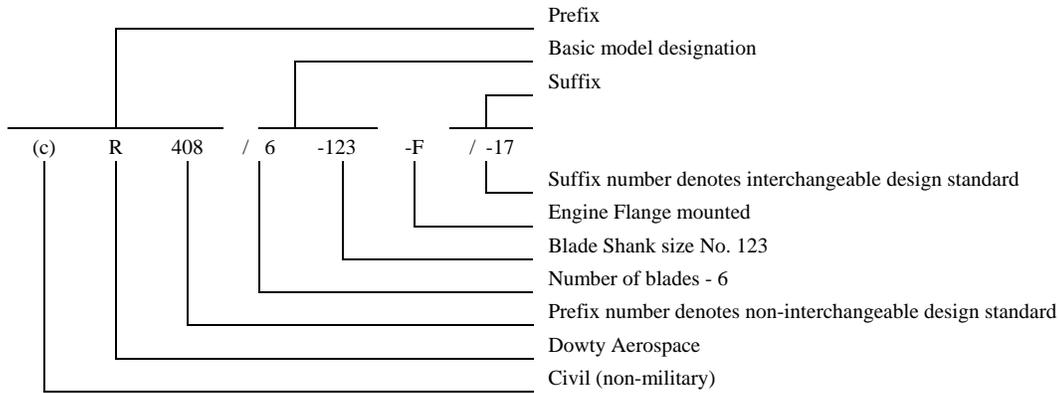
(1) This propeller conforms to its United States type design (TC No. P17BO) and is in a condition for safe operation.

(2) This propeller has been subjected by the manufacturer to a final operational check and is in a proper state of airworthiness. Reference FAR Section 21.500 which provides for the airworthiness acceptance of aircraft engines or propellers manufactured outside the U.S. for which a U.S. type certificate has been issued. Additional guidance is contained in FAA Advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers and Related Products, Imported into the United States.

NOTES

NOTE 1. Propeller Model Designation

The model designation of a complete Dowty Aerospace Propeller assembly consists of the basic model designation with prefix and suffix letters and numbers as shown below:



The prefix number indicates the design series, and propellers with different prefix numbers are not generally interchangeable. Certain models may be interchanged as complete aircraft sets on the advice of the propeller manufacturer only.

The suffix number is used to record minor alterations which do not affect interchangeability.

NOTE 2. Blade Model Designation

Dowty Aerospace propeller blades are identified by a serialized part number only, which does not constitute a model designation. A dash number following the part number indicates the type of finish. Only blades with a serial number prefix may be used on this model propeller.

NOTE 3: Pitch control:

Normal pitch control from feather to full-reverse by pitch control unit (PCU).

NOTE 4: (a) Feathering:

Model incorporates auxiliary feathering and unfeathering features by means of counterweights and motor/pump unit,

(b) Reversing:

Model incorporates reversing feature.

NOTE 5: Right-hand model:

(c) R408 These propellers are designed and manufactured for right-hand tractor only. (clockwise when viewed from rear).

NOTE 6: Interchangeable blades:

All of the blades are fully interchangeable with each other, and a propeller may contain blades with different approved part numbers.

NOTE 7: Equipment: The propeller equipment set, comprising the propeller itself and the units itemized below which are approved for use with the propeller are defined by Equipment Set Drawing 697070002-010 or subsequent approved issue and published in Aircraft Maintenance Manual (AMM) 1096.

Item	Part No.
- Propeller comprising	697070002
- Hub, Actuator & Backplate Assembly	697071234
- Blade & Bearing Assembly	697071002
- Beta Tubes	697074004
- Spinner	697069001
	697069002
- Brush Block Bracket Unit	697068002
- Pitch Control Unit	697073002
- Overspeed Governor Unit	697072003
- Feather Pump	697076004
- Propeller Electronic Controller	699008003
- Timer Monitor Control Unit	699009001

NOTE 8: Drawings & Specifications: Design Specification
 General Arrangement Drawing
 Installation Drawing 697070002-010 (Build Standard) or later approved issue.

NOTE 9: The Dowty Aerospace Model (c)R408/6-123-F/17 propeller is controlled by an integrated electronic control system which is operationally compatible with the engine type design. This model propeller complies with the approved propeller airworthiness requirements when used with the Pratt & Whitney PW150A engine installed in the De-Havilland DHC-8 Model 400, Model 401 and Model 402 aircraft and meet the Dowty Aerospace Propeller Electronic Control (PEC) Software Standard, UD1079 (Strike 23). Later versions of the PEC Software Standards must comply with the following Dowty Aerospace control documents:

<u>Title</u>	<u>Report No.</u>	RTCA DO-178B <u>Document No.</u>
Software Accomplishment Summary	699008957	11.2
Software Configuration Index	699008956	11.15 and 11.16
Plan of Software Aspects of Certification	699008955	11.1

NOTE 10: Operational Limitations:

10.1 Crosswind and Tailwind Restrictions

10.1.1 Maintenance Ground Running
 All ground running with the aircraft static should normally be conducted with the aircraft pointed into wind $\pm 30^\circ$. The following limitations apply when the aircraft is not pointed into the wind $\pm 30^\circ$.

For windspeeds less than or equal to 20 knots, maximum allowable torque is 15400 lbf ft (20882 Nm), equivalent to 2990 SHP (2230 kW) at 1020 rpm.

For windspeeds greater than 20 knots, maximum allowable torque is 2575 lbf ft (3492 Nm), equivalent to 500 SHP (373 kW) at 1020 rpm.

NOTE 10
CONT'D:

10.1.2 Flight Operations- Take-off.

Maintenance ground running limits (Section 10.1.1) normally apply until the aircraft speed is greater than the windspeed. Alternatively, a rolling take-off procedure may be used as follows:

For windspeeds less than or equal to 8 knots, maximum allowable torque with the aircraft static on the brakes is 15900 lbf ft (21560 Nm), equivalent to 3088 SHP (2303 kW) at 1020 rpm. As soon as the brakes are released, normal take-off torque of 23583 lbf ft (31979 Nm), equivalent to 4580 SHP (3415 kW) at 1020 rpm, can be selected.

For windspeeds above 8 knots and less than or equal to 20 knots, maximum allowable torque with the aircraft static on the brakes is 2575 lbf ft (3492 Nm), equivalent to 500 SHP (373 kW) at 1020 rpm. As soon as the brakes are released, normal take-off torque of 23583 lbf ft (31979 Nm), equivalent to 4580 SHP (3415 kW) at 1020 rpm, can be selected.

10.1.3 Ground Operation

On landing and/or rejected take-offs, the Power Lever must be held at Flight Idle position for at least 1.5 seconds before selecting a Power Lever Angle (PLA) less than Flight Idle, or by an appropriate alternative approved procedure as detailed within the Aircraft Flight Manual.

A PLA less than Flight Idle must not be selected at airspeeds greater than 150 knots Equivalent Airspeed (EAS).

10.1.4 Equipment Operation

The Propeller is not to be operated with oil temperature below 0°F (-18°C).

10.2 The following declared limitations and ratings shall apply:

Take-off Power, 100%	<u>5071SHP</u> 3782 KW
Take-off Engine Torque, 100%	26110 lbf ft (35405 Nm)
Take-off Propeller Speed, 100%	1020 rpm
Maximum Continuous Power, 100%	5071 SHP (3782 KW)
Maximum Continuous Propeller Torque, Maximum Continuous Propeller Overspeed, 105% ±1%	26110 lbf ft (35405 Nm) 100% 1072 rpm ±10 rpm
Maximum Permitted Transient Propeller Torque, 113%	29710 lbf ft (40287 Nm)
Maximum Transient Propeller Overspeed,	1173 rpm 115%

NOTE 11: Approved installations: Propellers listed in this data sheet are approved from a vibration standpoint only for use on the engine-aircraft combinations shown below:

PROPELLER MODEL	AIRCRAFT MODEL	ENGINE MODEL	FAA SPECIFICATION OR TC DATA SHEET	
			AIRCRAFT	ENGINE
(c)R408/6-123-F/17	DeHavilland DHC-8 Model 400, 401, and 402	Pratt & Whitney PW150A	*	E00062EN

*The Type Certification program for the DeHavilland DHC-8 Model 400, 401, and 402 is incomplete as of this propeller type certificate approval date.

Aircraft installations must be approved as part of the aircraft type certificate and demonstrate compliance with the applicable aircraft airworthiness requirements.

NOTE 12: Service Information: Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the UKCAA. Any such documents are accepted by the FAA and are considered FAA approved.

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

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