U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET P15BO	P15BO REVISION: 3 DOWTY PROPELLERS MODELS: R391/6-132-F/3, R391/6-132-F/10 May 20, 2014

Propellers of models described herein conforming with this data sheet (which is part of TC No. P15BO) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's and other approved instructions.

Type Certificate Holder	Dowty Propellers[1)] Anson Business Park Cheltenham Road East Gloucester, GL2 9QN England [1)]GE Aviation Systems Ltd, trading as Dowty Popellers
Type	Constant speed; hydraulic (See: Notes 3 and 4)
Engine flange	Special flange with 15 bolts and 3 dowels (all at 9.8125 inches P.C.D.)
Hub material	Aluminum alloy
Blade material:	Composite glass and carbon re-inforced plastic, polyurethane coated and fitted with nickel leading edge sheath for erosion protection with electric deicer boots.
Number of blades	6
Design series	R391/6-132-F/3 & R391/6-132-F10

BLADES (See Note 2)	MAXIMUM CONTINUOUS SHP RPM	<TAKE OFF> SHP RPM	NOMINAL DIAMETER	APPROXIMATE PROPELLER WEIGHT*
Part No. 697039275 or later for R391/6-132-F/3	4,637 ** 1020.7	4,637 ** 1020.7	162 inches	719 lbs.
Part No. 697039294 or later for R391/6-132-F/10	4,637 ** 1020.7	4,637 ** 1020.7	162 inches	719 lbs.

*Includes spinner weight

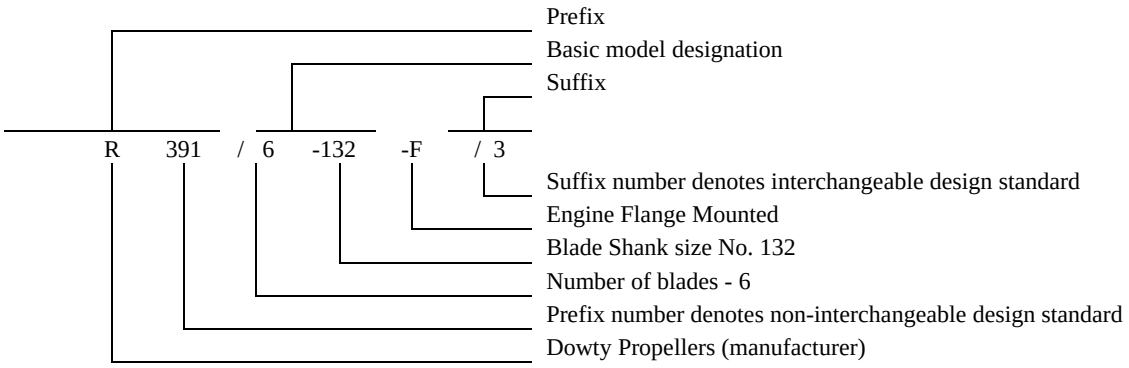
** Quoted at the propeller and equates to 4,705 shp (3,509 kW) at the engine torque meter.

CERTIFICATION BASIS:	FAR 21.29 and FAR 35 effective February 1, 1965, Amendments 35-1 through 35-6. Compliance established by equivalence to JAR-P, Change 7 and special requirements detailed in CAA letter dated April 12, 1991 (9/216/1661/CAA11/PDG/1), for the R391/6-132-F/3 propeller and CAA letter dated July 14, 1999 (9/80/DOWTY/C27J/C01/1-A, for the R391/6-132-F/10 propeller. Civil Aviation Authority (UKCAA) originally type certificated propeller R391/6-132-F/3 under its Type Certificate Number 116. The FAA validated this product under U.S. Type Certificate Number P15BO. The UKCAA then type certificated the R391/6-132-F/10 propeller and included it on the same document. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of propeller R391/6-132-F/3 and the similar R391/6-132-F/10 on behalf of the United Kingdom of Great Britain and Northern Ireland. EASA type certificated these propellers under its Type Certificate Number EASA.P.087 on October 17, 2008.
TC (IMPORT) NO:	EASA Type Certificate Number EASA.P.087, Issue 1
TC APPLICATION DATE:	July 12, 1995 (Basic) October 30, 2008
TC ISSUED:	March 24, 1998 (Basic) February 27, 2007 (Revision 1) January 8, 2009 (Revision 2)
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 EASAon behalf of the European Community which contains the following language: (1) This propeller conforms to its United States type design (TC No. P15BO) 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 Propellers 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 Propellers' propeller blades are identified by a part number that defines the design and a unique serial number. A dash number following the part number indicates the type of finish.

NOTE 3: Pitch control: — Normal pitch control from feather to full-reverse by pitch control unit (PCU), Dowty type 697053002 for the R391/6-132-F/3 propeller and type 697093001 for the R391/6-132-F/10 propeller.

NOTE 4: (a) Feathering: — Models incorporate auxiliary feathering and unfeathering features by means of counterweights and motor/pump unit,

(b) Reversing: — Models incorporate reversing feature.

NOTE 5: Right-hand model: — These propellers are designed and manufactured for right-hand tractor only (clockwise when viewed from rear).

NOTE 6: Interchangeable blades: — All 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 R391/6-132-F/3 propeller itself and the units itemized below which are approved for use with the propeller are defined by Equipment Set Drawing 697055001 Issue 15A or subsequent approved issue and published in Propeller Maintenance Manual (PMM) 1093.

Item
- Spinner
- Auxiliary Pump
- Overspeed Governor (OSG)
- Beta Tube Assembly
- Pitch Control Unit (PCU)
- Brush Block Bracket Unit
- De-Ice Timer Unit (DITU)
- De-ice Harness
- Propeller Control Harness #1
- Propeller Control Harness #2
- Auxiliary Pump Harness

Propeller de-icing: electrical de-icing with Dowty Brush Block Bracket Unit and DITU.

The propeller equipment set, comprising the R391/6-132-F/10 propeller itself and the units itemized below which are approved for use with the propeller are defined by Equipment Set Drawing 697090001 Issue 1C or subsequent approved issue and published in Propeller Maintenance Manual (PMM) 1097.

Item
- Spinner
- Auxiliary Pump
- Overspeed Governor (OSG)
- Beta Tube Assembly
- Pitch Control Unit (PCU)
- Brush Block Bracket Unit
- De-Ice Timer Unit (DITU)

Propeller de-icing: electrical de-icing with Dowty Brush Block Bracket Unit and DITU.

NOTE 8:

Drawings & Specifications (R391/6-132-F/3):	Design Specification 91DS0590 General Arrangement Drawing 697039101 Installation Drawing 697039001-015 (Build Standard) or subsequent approved issue
Drawings & Specifications (R391/6-132-F/10):	Design Specification 97DS0615 General Arrangement Drawing 697091101 Installation Drawing 697091001-000 (Build Standard) or subsequent approved issue

Note 9: Dowty Propellers' R391/6-132-F/3 and R391/6-132-F/10 models are controlled by an integrated control system, which is part of the engine type design. The R391/6-132-F/3 propeller complies with the propeller airworthiness requirements when used with the Rolls-Royce Corporation model AE 2100D3 engine only. The R391/6-132-F/10 propeller complies with the propeller airworthiness requirements when used with the Rolls-Royce Corporation model AE 2100D2 series engine only. Any change to the engine, including its control system, which affects, or may affect, the propeller approval must be substantiated to demonstrate that the propeller as integrated with the changed engine, including its control system, still complies with the propeller certification basis. Also, any change to the engine, resulting from a change to the propeller, must be substantiated to demonstrate that the changed engine still complies with the engine certification basis.

NOTE 10: Operational Limitations:

10.1 Crosswind and Tailwind Restrictions

The crosswind and tailwind restrictions for ground running and flight operations/take-off are as stated in the Propeller Maintenance Manual 1093 for the R391/6-132-F/3 propeller and in Propeller Maintenance Manual 1097 for the R391/6-132-F/10 propeller.

10.2 The following declared limitations and ratings shall apply:

Maximum Take-off Power	4,637* SHP (100%)
Maximum Take-off Torque	23,860** lb ft (100%)
Maximum Take-off Propeller Speed	1,020.7 ± 1 rev/min (100%)
Maximum Continuous Power	4,637* SHP (100%)
Maximum Continuous Torque	23,860** lb ft (100%)
Maximum Propeller Overspeed	1,143 rev/min (112%)
Maximum Permitted Transient Torque	26,628*** lb ft (111.6%)

*Quoted at the propeller and equates to 4,705 shp (3,509 kW) at the engine torque meter.

**Quoted at the propeller and equates to 1,732 lb ft (2,348 Nm) at the engine torque meter.

***Quoted at the propeller and equates to 1,933 lb ft (2,621 Nm) at the engine torque meter.

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
R391/6-132-F/3	Lockheed 382J (C-130J)	Rolls-Royce Corporation AE 2100D3		
R391/6-132-F/10	Alenia Aeronautica C-27J Spartan	Rolls-Royce Corporation AE 2100D2 series		

NOTE 12: Aircraft installations must be approved as part of the aircraft type certificate and demonstrate compliance with the applicable aircraft airworthiness requirements.

NOTE 13: 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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