

Engine Specification



Commercial
T.C. DOT E-15
FAA E4EA

PT6A-135A TURBOPROP ENGINE SPECIFICATION
GUARANTEED CALIBRATION STAND PERFORMANCE
Sea Level Static

Model: PT6A-135A
Spec No: 803

<u>STANDARD DAY THERMODYNAMIC PERFORMANCE</u>	<u>MAXIMUM SHAFT HORSEPOWER PERFORMANCE</u>						
	<u>ESHP</u>	<u>SHP</u>	<u>MAX. SFC</u> <u>LB/ESHP/HR</u>	<u>ESHP</u>	<u>SHP</u>	<u>TORQUE</u> <u>LB-FT</u>	<u>MAX. SFC</u> <u>LB/ESHP/HR</u>
Take-Off Rating	927	885	.567	787	750 (1)	2080	.585
Max. Continuous Rating	927	885	.567	787	750 (1)	2080	.585
Max. Climb	927	885	.567	736	700(2)	1940	.596
Max. Cruise	927	885	.567	736	700(2)	1940	.596

- (1) Available to 93°F @ 1900 RPM prop. speed
- (2) Available to 105°F @ 1900 RPM prop. speed

ESTIMATED PERFORMANCE

Estimated performance for this model may be obtained by use of the P&WC Computer Program. This program is available on request.

DESCRIPTION AND DIMENSIONS

Type - A free turbine turboprop propulsion engine incorporating a multi-stage compressor driven by a single stage turbine and a single stage free turbine driving the propeller shaft through planetary reduction gearing.

P&WC Installation Drawing No. 3011200 - The Installation Drawing defines the engine envelope and provides the dimensions and design data necessary for the engine installation interfaces.

Propeller Shaft Design Speed	-	1900 RPM
Propeller Shaft Rotation	- Viewed from rear of engine	Clockwise
Engine Diameter	- See Installation Drawing	19 in. approx.
Engine Length	- See Installation Drawing	62 in. approx.
Fuel	- Conforming to:	CPW 204 or CPW 46
Oil	- P&WC Approved Oils Conforming to:	PWA 521, Type II or CPW 202
Oil Consumption, Maximum	- Measured over 10-hour period	0.2 lb/hr

DRY WEIGHT

Including Standard Equipment, shall not exceed 338 lbs

Date: 11 September 1978

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Export Control Classification: ECL: N/A, P-ECCN: 9E991

GENERAL NOTES

Take-off Rating is the maximum power certified for Take-off.

Maximum continuous rating is the maximum power certified for continuous use. Aircraft Type Certification testing and in-flight emergencies are the only conditions for which the use of rated maximum continuous power is authorized. In all other conditions the indicated rating for the corresponding flight condition is the maximum authorized power.

Max. Climb and Max. Cruise are the maximum powers approved by P&WC for climb and cruise operation.

The quoted certified and approved powers are obtainable on a dynamometer at ICAO Standard conditions with the specified fuel and oil, using P&WC designed exhaust stubs of 74 sq.in. effective area and without intake duct, compressor airbleed or load on the accessory drives.

In calculating equivalent shaft horsepower (ESHP) it is assumed that 2.5 lb. axial thrust is equivalent to one shaft horsepower. Fuel consumption is based on JP4 with a lower heating value of 18,400 BTU per lb.

STANDARD EQUIPMENT

Included in Engine Price and Dry Weight

Power Control System including Fuel Pump and Fuel Control Unit	
Engine Ignition System without Power Source	Gas Temperature Thermocouples
Integral Oil Tank	Twin Port Exhaust
Torquemeter	Fuel Heater with Plumbing
Airbleed for Aircraft Services	Fireseal Mount Rings
Intake Screen	Corrosion Protection
Major Castings in Magnesium Alloy	
Accessory Drives:	
Gas Generator Section:	Power Section:
Starter Generator	Propeller Governor
Tachometer Generator	Tachometer Generator
	Propeller Overspeed Governor

OPTIONAL EQUIPMENT

Available at Increased Price and Dry Weight

**ENGINE DRY
WEIGHT CHANGE**

Propeller Reversing System Including linkages, Propeller Control Cam	
Unit and Propeller Control Unit	+ 9.8 lb.
- with Lock Pitch Solenoid	+ 0.8 lb.
Accessory Drives:	
Gas Generator Section:	
Hydraulic Pump (7600 RPM) and Aircraft Accessory (12,000 RPM)	+ 2.6 lb.
Aircraft Accessory (12,000 RPM)	+ 1.5 lb.
Vacuum Pump (3800 RPM)	+ 0.5 lb.

Information on additional "Optional Equipment" is available on request. Items of "Optional Equipment" should be ordered at time of engine procurement in order to ensure availability of this equipment at time of engine shipment.

Subject to change without notice



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