

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET 1E9	TCDS NUMBER 1E9 REVISION: 15 DATE: April 23, 2008 PRATT & WHITNEY MODELS: (Turbo Wasp) JT12A-6 JT12A-6A JT12A-8 J60-P-5B
---	--

TYPE CERTIFICATE DATA SHEET NO. 1E9

Engines of models described herein conforming with this data sheet (which is part of Type Certificate Number 1E9) 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 Civil Air Regulations, provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder:	Pratt & Whitney Division United Technologies Corporation East Hartford, Connecticut 06108		
Models Type	Turbo Wasp JT12A-6, JT12A-6A/J60-P-5B, JT12A-8 Turbojet, nine-stage axial compressor, two-stage turbine and eight cannular combustion chambers		
Ratings	<u>JT12A-6</u>	<u>JT12A-6A/J60-P-5B</u>	<u>JT12A-8</u>
Maximum continuous static thrust at sea level, pounds	2400	2570	3000
Takeoff static thrust at sea level (5 minutes), pounds	3000	- -	3300
Components			
Fuel control	Holley R-167 or Hamilton Standard JFC46 (-3 for Lockheed / -4 for North American)		Hamilton Standard JFC46 (-10 for Lockheed / -8 for North American)
Fuel pump	Goodrich Corp. 50466A2		Goodrich Corp. 50466A2
Ignition	General Laboratories Associates (GLA) Exciter Model 40367 with two spark ignitors, Champion FHE 151; or GLA Exciter Models 42145 and 42194 with two spark ignitors, Champion AA-338		
Fuel	See Note 11.		
Oil (see Note 12)	Synthetic type conforming with Pratt & Whitney (PWA) Specification 521, as revised.		
Principal Dimensions	Length includes nose drive cover and the aft turbine bearing housing case.		
Length, maximum	78.3 inches	- -	- -
Diameter, maximum	22.1 inches	- -	- -
Weight, dry	Includes basic engine with all essential accessories but excluding starter, propelling nozzle, power source for ignition system and oil supply tank, fuel oil cooler and fuel heater.		
	448 pounds	- -	468 pounds

Page No.	1	2	3	4
Rev. No.	15	14	14	14

This revision reinstates Model J60-P-5B.  
 Legend: "- -" indicates "same as preceding model."

NOTE 6.

ACCESSORY DRIVE PROVISIONS					
DRIVE	Rotation	Speed Ratio to Turbine Shaft	Torque (in.-lb.)		Overhang (in.-lb.)
			Continuous	Static	
Tachometer	CCW (1)	.264:1	7	50	---
Optional tachometer	CCW	.262:1	7	50	---
Starter-generator (2)	CC	.435:1	500	1260	500
Fluid power pump	CC	.263:1	600	2700	350

(1) CCW = Counterclockwise / CC = clockwise

(2) Limits apply only to generator operation

Maximum continuous starter torque - 1260 inch-pound

Engine starter drive shear section capable of withstanding a static torque of up to 2520 inch-pound

NOTE 7.

ADDITIONAL EQUIPMENTADDED WEIGHT

Oil tank	14.0 pounds
Fuel-oil cooler	10.0 pounds
Fuel heater	14.0 pounds
Fuel control cross shaft	2.0 pounds for the JT12A-6 & JT12A-6A 2.5 pounds for the JT12A-8
Inlet bullet nose cone	3.0 pounds

NOTE 8.

Power setting, power checks, and control of engine output in all operations are to be based on PWA engine charts referring to turbine discharge section gas pressures. Pressure probes are included in the engine assembly for this reason.

NOTE 9.

This engine meets FAA requirements for adequate turbine disc integrity and rotor blade containment and does not require external armoring.

NOTE 10.

MAXIMUM CONTINUOUS STATIC THRUST AT SEA LEVEL

<u>Model</u>	<u>Ambient Temperature</u>	<u>Thrust</u>
JT12A-6	-3°F and below	3000 pounds
JT12A-6A	12°F and below	3000 pounds
J60-P-5B	12°F and below	3000 pounds
JT12A-8	23°F and below	3300 pounds

The engine installation and operating manual should be consulted for variation in thrust between standard day and the temperatures given above.

NOTE 11.

FUELS: JP-1, JP-4, and JP-5 fuels conforming to PWA Specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting engine operation or power output. No fuel control adjustment is required when switching fuel types.

ANTI-ICING ADDITIVE: Phillips PFA-55MB anti-icing additive at the use concentration not in excess of 0.15 percent by volume is approved for use in fuels conforming to PWA Specification No. 522D.

ANTI-ICING ADDITIVE: Shell ASA-3 anti-static additive at a concentration that will provide not in excess of 300 conductivity units, which is approximately equivalent to 1 ppm, is approved for use in fuels conforming to PWA Specification No. 522E or later revision.

→ BIOCIDE ADDITIVE: SOHIO Biobor JF biocide additive at a use concentration not in excess of 20 ppm elemental boron (270 ppm total additive) is approved for use in fuel conforming to PWA Specification No. 522.

NOTE 12.

PWA Turbojet Engine Service Bulletin No. 238 lists approved brand oil.

NOTE 13.

JT12A-6 engines which have been modified in accordance with PWA Engineering Change No. 110181 (Aves Kit) should have the suffix letter "A" added to the engine serial number. All JT12A-6A are so modified.